

Making the railway system  
work better for society.

## Report

### *3<sup>rd</sup> TAF TSI IMPLEMENTATION STATUS REPORT OF THE EUROPEAN UNION AGENCY FOR RAILWAYS - 2<sup>nd</sup> HALF 2015*

|                  | <i>Drafted by</i>           | <i>Validated by</i>    | <i>Approved by</i> |
|------------------|-----------------------------|------------------------|--------------------|
| <i>Name</i>      | Rodrigo Gutierrez Dominguez | Mickael Varga          | Anna Gigantino     |
| <i>Position</i>  | Project Officer             | Telematics Coordinator | Head of Unit       |
| <i>Date</i>      | 12/07/2016                  | 12/07/2016             | 25/07/2016         |
| <i>Signature</i> |                             |                        |                    |

#### *Document History*

| <i>Version</i> | <i>Date</i> | <i>Comments</i>                         |
|----------------|-------------|---|
| 0.1            | 12/07/2016  | 1 <sup>st</sup> draft                   |
| 1.0            | 13/07/2016  | Revision made by Telematics Coordinator |
| 2.0            | 25/07/2016  | Revision made by Head of Unit           |
|                |             |   |

## Contents

|  |           |
|--|-----------|
| Abbreviations.....   | 3         |
| Reference documents .....  | 5         |
| Reference legislation .....  | 5         |
| Table of Figures .....   | 6         |
| 1. Executive summary .....   | 7         |
| 2. Introduction .....  | 10        |
| 3. Context.....  | 11        |
| 4. Analysis.....   | 15        |
| 4.1. Evolution of TAF functions at Country level.....  | 16        |
| 4.1.1. Implementation status in the 2nd half 2015 for Company Codes function .....   | 18        |
| 4.1.2. Implementation status in 2nd half of 2015 for Primary Location Codes function.....                                    | 21        |
| 4.1.3. Implementation status in 2nd half of 2015 for Common Interface function .....   | 24        |
| 4.1.4. Implementation status in 2nd half of 2015 for Rolling Stock Reference Database<br>function .....                      | 28        |
| 4.1.5. Implementation status in 2nd half of 2015 for Train Running Information Function .....                                | 32        |
| 4.1.6. Implementation status in 2nd half of 2015 for Wagon and Intermodal Unit Operational<br>Database (WIMO) Function ..... | 37        |
| 4.1.7. Evolution of RU-IM functions per corridor in 2nd half of 2015 .....   | 39        |
| 5. Progress of the Implementation of TAF TSI functions from this report compared with<br>previous reports.....               | 42        |
| 6. Conclusions .....   | 44        |
| 7. Regional Workshops .....  | 47        |
| 7.1. Impact of the regional Workshops in the Reporting Exercise .....  | 51        |
| 8. Proposals to support the Reporting Process.....   | 52        |
| 9. Functions to be reported in the next report.....  | 54        |
| <b>Annex 1: Maps and Implementation Data .....</b>   | <b>55</b> |

## Abbreviations

| Abbreviation      | Definition  |
|-------------------|---|
| 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                               |
| ERA               | European Union Agency for Railways (also referred to as Agency)     |
| ETA               | Estimated Time of Arrival   |
| GCU               | General Contract for Use of Wagons                                  |
| GIS               | Geographical Information System                                     |
| IM                | Infrastructure Manager  |
| INEA              | Innovation and Networks Executive Agency                            |
| JSG               | Joint Sector Group  |
| NCP               | National Contact Point  |
| PCS               | Path Coordination System by RNE                                     |
| PM <sup>2</sup>   | Official Project Management Methodology of the European Commission  |
| RISC              | Rail Interoperability and Safety Committee                          |
| RNE               | Rail Net Europe   |
| RSRD              | Rolling Stock Reference Database                                    |
| RSRD <sup>2</sup> | Rolling Stock Reference Database implementation made by UIP members |
| RU                | Railway Undertaking   |
| TAF               | Telematics Applications for Freight                                 |
| TIS               | Train Information System developed by RNE                           |
| TSI               | Technical Specification for Interoperability                        |
| UIC               | Union Internationale des Chemins de fer                             |
| UIP               | International Union of Wagon Keepers                                |
| UNIFE             | Association of the European Rail Industry                           |

| <b>Abbreviation</b> | <b>Definition</b>                              |
|---------------------|--|
| CEF                 | Connecting Europe Facility                     |
| WIMO                | Wagon and Intermodal Unit Operational Database |
| WK                  | Wagon Keepers                                  |

## 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:<br>Assessment of TAF TSI implementation by the European Railway Agency                                | Ref. Ares(2014)1706338                                   | 26.05.2014 |
| (3)     | 1 <sup>st</sup> Status Report in 2014 of the European Railway Agency for European Commission regarding the Implementation of TAF TSI. | 1 <sup>st</sup> Status Report ERA-REP-114 - IMPL-2015-01 | 21.04.2015 |
| (4)     | 2 <sup>nd</sup> Status Report in 2014 of the European Railway Agency for European Commission regarding the Implementation of TAF TSI. | 2 <sup>nd</sup> Status Report ERA-REP-114 - IMPL-2015-02 | 27.11.2015 |
| (5)     | 2nd ERA TAF TSI Implementation Cooperation Group held on 29th and 30th September 2015.  | Minutes_TAF_Cooperation Group_20150929_30_Draft_v03      | 16.10.2015 |
| (6)     | Guideline TAF TSI Regional Workshop   | ERA-Guideline - TAF TSI Regional Workshop                | 30.09.2015 |

## Reference legislation

| Ref. N° | Document Reference              | Title   | Last Issue |
|---------|---------------------------------|---|------------|
| [1]     | Directive 2008/57/EC            | Interoperability of the rail system   | 17.06.2008 |
| [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 2010 concerning a European rail network for competitive freight   | 22.09.2010 |
| [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

|   |    |
|---|----|
| Figure 1: Agency TAF TSI Implementation Cooperation Group process. ....   | 11 |
| Figure 2: PM <sup>2</sup> project lifecycle. ....   | 14 |
| Figure 3: Companies participating in the 3rd Reporting Session per function .....   | 18 |
| Figure 4: Company Codes function implementation in January 2015. ....   | 19 |
| Figure 5: Company Codes function implementation in July 2015. ....  | 19 |
| Figure 6: Company Codes function implementation in January 2016. ....   | 20 |
| Figure 7: Primary Location Codes function implementation in January 2015. ....  | 22 |
| Figure 8: Primary Location Codes function implementation in July 2015. ....   | 22 |
| Figure 9: Primary Location Codes function implementation in January 2016. ....  | 23 |
| Figure 10: Common Interface function implementation in January 2015. ....   | 25 |
| Figure 11: Common Interface function implementation for Railway Undertakings in July 2015. ....   | 25 |
| Figure 12: Common Interface function implementation for Infrastructure Managers in July 2015. ....                                      | 26 |
| Figure 13: Common Interface function implementation for Railway Undertakings in January 2016. ....                                      | 26 |
| Figure 14: Common Interface function implementation for Infrastructure Managers in January 2016. ....                                   | 27 |
| Figure 15: Rolling Stock Reference Database function implementation in January 2015. ....   | 30 |
| Figure 16: Rolling Stock Reference Database function implementation in July 2015. ....  | 30 |
| Figure 17: Rolling Stock Reference Database function implementation in January 2016. ....   | 31 |
| Figure 18: Train Running Information Function implementation for Infrastructure Managers in July 2015. ....                             | 33 |
| Figure 19: Train Running Information Function implementation for Infrastructure Managers in January 2016. ....                          | 34 |
| Figure 20: Train Running Information Function implementation for Railway Undertakings in July 2015. ....                                | 35 |
| Figure 21: Train Running Information Function implementation for Railway Undertakings in January 2016. ....                             | 35 |
| Figure 22: Wagon and Intermodal Unit Operational Database (WIMO) Function implementation for Railway Undertakings in July 2015. ....    | 37 |
| Figure 23: Wagon and Intermodal Unit Operational Database (WIMO) Function implementation for Railway Undertakings in January 2016. .... | 37 |
| Figure 24: Corridor implementation of Train Running Information Function for Infrastructure Managers in July 2015. ....                 | 39 |
| Figure 25: Corridor implementation of Train Running Information Function for Infrastructure Managers in January 2016. ....              | 40 |
| Figure 26: Rail Freight Network Corridors defined by Regulation (EU) No 1316/2013. ....   | 41 |
| Figure 27: Evolution of the Implementation along the Reporting. ....  | 43 |
| Figure 28: Minimum and Maximum Implementation Dates in the TAF TSI Master Plan delivered in January 2013. ....                          | 44 |
| Figure 29: Impact of the Regional workshops on the evolution of companies participating in the reporting exercise. ....                 | 51 |
| Figure 30: Membership of companies attending the Regional Workshops. ....   | 52 |

## 1. Executive summary

This report contains the data provided to report the status of the implementation by **31.12.2015** of the following TAF TSI [2] functions:

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

This third report, compared to the second issued in November 2015, provides a better view of the implementation of these six functions, agreed by the Agency TAF TSI Cooperation Group in September 2015. This better view has been achieved thanks to the increase of the participation of the companies, which grew in the reporting exercise, from 187 company contacts registered in the JSG Reporting Tool (<http://taf-jsg.info/>) to 347 companies currently registered. Furthermore, the number of responses nearly doubled (from 81 got for the 2<sup>nd</sup> report to 156 got for the 3<sup>rd</sup> report).

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)<sup>1</sup> 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<sup>2</sup>
- ) UIC
- ) EIM
- ) UNIFE
- ) UIRR
- ) ESC
- ) UIP

---

<sup>1</sup> See «Reference Documents».

<sup>2</sup> See «Abbreviations» for acronyms.

- ) RNE
- ) ERFA
- ) RAILDATA
- ) UITP
- ) EPTO

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 one hundred fifty one (151) companies across Europe.

The following key findings per TAF function can be highlighted:

- ) In general terms, whether we consider a reference group of companies reporting in both 2<sup>nd</sup> and 3<sup>rd</sup> reports, we cannot observe an increase of companies having finished implementation. Therefore, most of additional companies using TAF TSI functions are new and they have just joined the 3<sup>rd</sup> monitoring session.
- ) 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.
- ) The majority of RUs is still developing the common interface, while a most of the of IMs have already finished the implementation of the common interface.
- ) The deployment of the Rolling Stock Reference Database has been already launched, however mainly UIP members have delivered data concerning the implementation of this function. Regarding the data delivered, these Wagon Keepers companies have already completed the implementation of this function. Nevertheless, the accomplishment of this function is clearly delayed.
- ) The level of realisation of Train Running Information is progressing in accordance with the implementation schedule quoted in the TAF TSI Master plan by 2017, in particular for the Infrastructure Managers, meanwhile the evolution is not so evident for the Railway Undertakings.
- ) The level of fulfilment of the Wagon and Intermodal Unit Operational Database is still very low based on the realisation milestones reflected on the TAF TSI Master Plan (1), where half of Railway Undertakings respondents committed to deploy this function by 2016 and the whole implementation to be performed by 2018.

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 and Wagon and Intermodal Unit Operational Database.

In particular this report shows that the implementation of the Rolling Stock Reference Database (RSRD) by 2<sup>nd</sup> half of 2015 is in average for the overall European rail sector delayed compared to the declared target implementation date in the Master Plan, 2015.



The drivers for the implementation of this function are the Private Wagon Owners, mostly UIP members, and the Railway Undertakings (RUs). However, compared to the 1<sup>st</sup> and 2<sup>nd</sup> Implementation reports, the RUs have already started delivering information about the implementation of the TAF TSI [2] compliant RSRD database.

## 2. Introduction

This 3rd 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 referred to in Section 7.1.4 of the Annex. 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.

Beyond this, this activity meets the 4<sup>th</sup> Strategic Priority of the Agency work programmes 2015 and 2016, "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)<sup>3</sup> 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 diagram below shows the process allowing the Agency to perform the above listed activities:

---

<sup>3</sup> It will be used from next report.

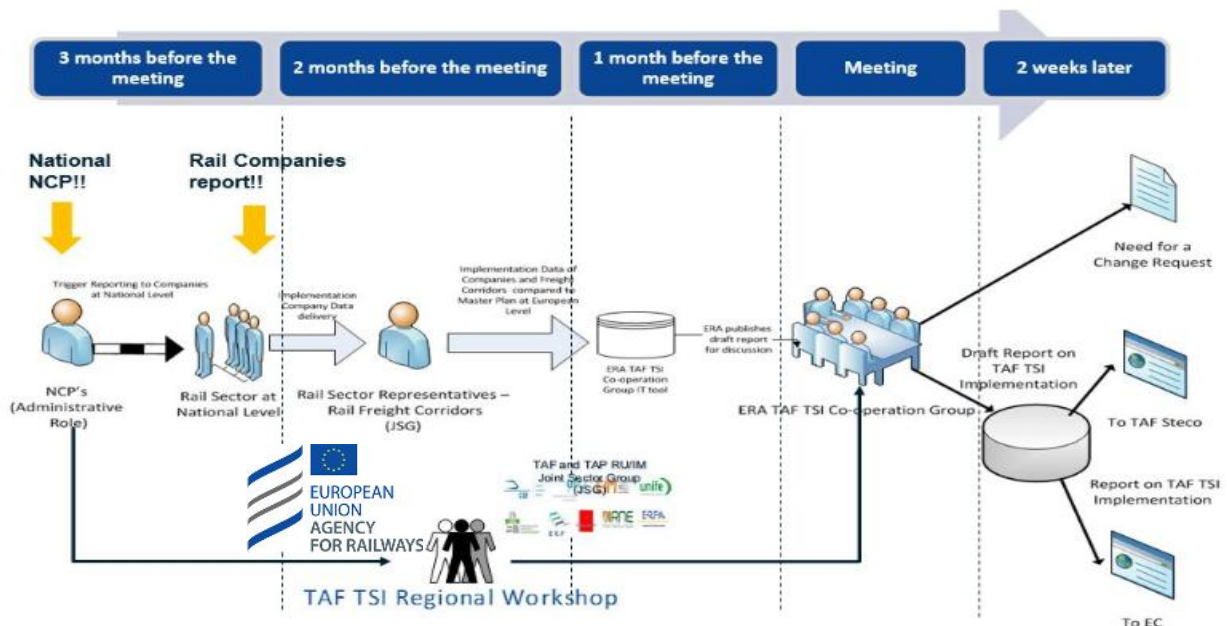


Figure 1: Agency TAF TSI Implementation Cooperation Group process.

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<sup>4</sup> [4] will better mobilise private 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 15<sup>th</sup> 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.

<sup>4</sup>[http://inea.ec.europa.eu/download/calls2014/cef\\_transport/calltexts/\\_map\\_funding-objective-1\\_annex-3\\_interoperability.pdf](http://inea.ec.europa.eu/download/calls2014/cef_transport/calltexts/_map_funding-objective-1_annex-3_interoperability.pdf)

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 Railway Agency 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 three hundred forty seven (347) 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:

- J 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.
- J Maps to report about RU-IM Communication functions. The presentation of the progress evolution per corridors underpins the implementation of Corridor Regulation N° 913/2010 [3]. Thereby, these maps represent the progress of the implementation at country level and at corridor level of the functions implementing the exchange of data for the following processes:
  - o Short Term Path Request,
  - o Train Running Information,
  - o Train Preparation,
  - o Service Disruption and
  - o Unique Train Identifiers.
- J 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:
  - o Consignment Data Function,
  - o Wagon and Intermodal Unit Operational Database (WIMO) Function,
  - o Wagon Movement Function,
  - o Shipment ETA Function and
  - o Rolling Stock Reference Database.

The scope of the present report is to inform about the deployment of the functions scheduled to be implemented by 2<sup>nd</sup> half 2015 in the Master Plan (1) delivered by the sector for the implementation of the TAF TSI [2] system. As it was agreed by the members of the Co-operation Group for the Implementation of

Telematics Applications for Freight in the 2nd meeting held on 29<sup>th</sup> and 30<sup>th</sup> September 2015, this report provides information about the implementation of the following functions:

- )] Reference Files Function:
  - o Company Codes
  - o Primary Location Codes
- )] Common Interface Function
- )] Rolling Stock Reference Database.
- )] Train Running Information Function
- )] Wagon and Intermodal Unit Operational Database

To have a common approach for all companies' contributors submitting implementation information, **an optional common criterion has been agreed with the representatives of the rail sector 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<sup>2</sup>). 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 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 preventing 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:
  - o Feasibility Study
  - o Business Case
  - o 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:
  - o Resource Planning
  - o 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 diagram explaining the expected commitment of resources made for every phase of the project.

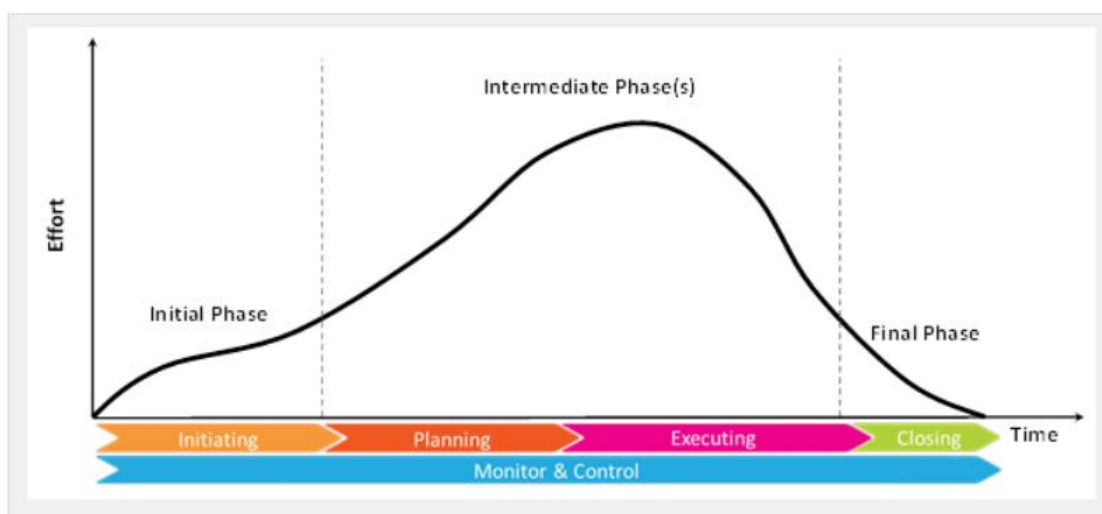


Figure 2: PM<sup>2</sup> project lifecycle.

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):

- J 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;
- J 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:
  - o Project not launched: No data -> Blue colour on the map.
  - o Initiating Phase accomplished: 0% =< DI < 25% -> Red colour on the map.
  - o Planning Phase accomplished: 25% =< DI < 50% -> Orange colour on the map.
  - o Executing Phase accomplished: 50% =< DI < 100% -> Green colour on the map.
  - o Closing & Production accomplished: DI = 100% -> Dark Green colour on the map.

#### 4. Analysis

TAF TSI Master Plan (1) shows that most of functions of the TAF TSI can be achieved by the end of 2018, with most functions operational by 2016. The most difficult part of the realisation will be the implementation of the unique Train Identifiers (TID) and the Path Request function, upon which many other functions are dependent. Indeed, the first set of functions to be implemented in order to facilitate the further deployment of the system is:

- J Reference Files Function:
  - o Company Codes
  - o Primary Location Codes
- J Common Interface Function
- J Rolling Stock Reference Database.

In addition to the above listed functions, the members of the TAF TSI Implementation Co-operation Group agreed in the 2<sup>nd</sup> Agency TAF TSI Implementation Cooperation Group, meeting held on 29<sup>th</sup> and 30<sup>th</sup> September 2015, to continue reporting for the 3<sup>rd</sup> report concerning the implementation of TAF TSI [2] by 2<sup>nd</sup> half 2015 on the following functions:

- ) Train Running Information Function
- ) Wagon and Intermodal Unit Operational Database (WIMO) Function

#### 4.1. Evolution of TAF functions at Country level

In line with the timeline defined in the TAF TSI Master Plan (1) and the request of the TAF TSI Implementation Co-operation Group members, the reporting of this second report is limited to the TAF TSI [2] functions which could be achieved by 2<sup>nd</sup> half 2015:

- ) Reference Files Function:
  - o Company Codes
  - o Primary Location Codes
- ) Common Interface Function
- ) Rolling Stock Reference Database.
- ) Train Running Information Function
- ) Wagon and Intermodal Unit Operational Database (WIMO) Function

The data were collected by the JSG tool in January 2016 and transferred to the Agency TAF TSI Implementation Co-operation Group IT tool and since February 2016, they are publicly available on the Agency website: . <http://www.era.europa.eu/tools/TAFTSI/Pages/Home.aspx>

Concerning the criteria adopted to estimate the level of implementation per country, it has been agreed within the context of the TAF TSI Implementation Co-operation Group to apply a weighting factor per company to those functions where the market share of RUs, Wagon keepers and Infrastructure Managers is relevant to have a better view of the degree of implementation per country. Thereby, the weighting factor per company has been applied for the following functions:

- ) Rolling Stock Reference Database.
- ) Train Running Information Function
- ) Wagon and Intermodal Unit Operational Database (WIMO) Function

More details about the particular weighting factor applied is provided in every section for every function. Indeed, this weighting factor depends on different parameters as track kilometres for Infrastructure Managers, tonne kilometres for Railway Undertakings and number of wagons for Wagon Keepers.

For the remaining functions an average calculation for the values supplied by all the companies reporting that they have started freight transport activities or intent to develop it in the near future is applied. Thereby, the average without any weighting factor is applied to the following functions:

- ) Reference Files Function:
  - o Company Codes



- Primary Location Codes

) Common Interface Function

The number of companies reporting about the implementation of the above quoted TAF TSI functions in the 3<sup>rd</sup> Implementation report is the following:

|  | Company Codes function | Primary Location Codes function | Common Interface function | Rolling Stock Reference Database function | Train Running Information Function | Wagon and Intermodal Unit Operational Database function |
|--|------------------------|---------------------------------|---------------------------|---|------------------------------------|---|
| Number of IMs Report per function                        | 69                     | 25                              | 25                        | 3   | 25                                 | 5   |
| Number of RUs Report per function                        | 45                     | 0 <sup>5</sup>                  | 71                        | 65  | 71                                 | 72  |
| Number of WKs Report per function                        | 17                     | 0 <sup>6</sup>                  | 17                        | 57  | 0 <sup>7</sup>                     | 8   |
| <b>TOTAL Number of Companies 3rd Report per function</b> | <b>131</b>             | <b>25</b>                       | <b>113</b>                | <b>125</b>                                | <b>96</b>                          | <b>85</b>   |

*Table 1 : Number of companies reporting per function and type of company*

The first conclusion that we can draw from the table above is that the number of Infrastructure Managers participating in the 3<sup>rd</sup> survey is bigger than the number of Infrastructure Managers who delivered the Implementation Master Plan in 2012. Secondly, we draw the conclusion that the number of Railway Undertakings varies from one function to another and the number of Wagon Keepers is more relevant for the function that it has more impact on their business, the Rolling Stock Reference Database function.

<sup>5</sup> Railway Undertakings are not intended to populate the Primary Location Codes Reference File.

<sup>6</sup> Wagon Keepers are not intended to populate the Primary Location Codes Reference File.

<sup>7</sup> Wagon Keepers are not intended to implement the Train Running Information Function.

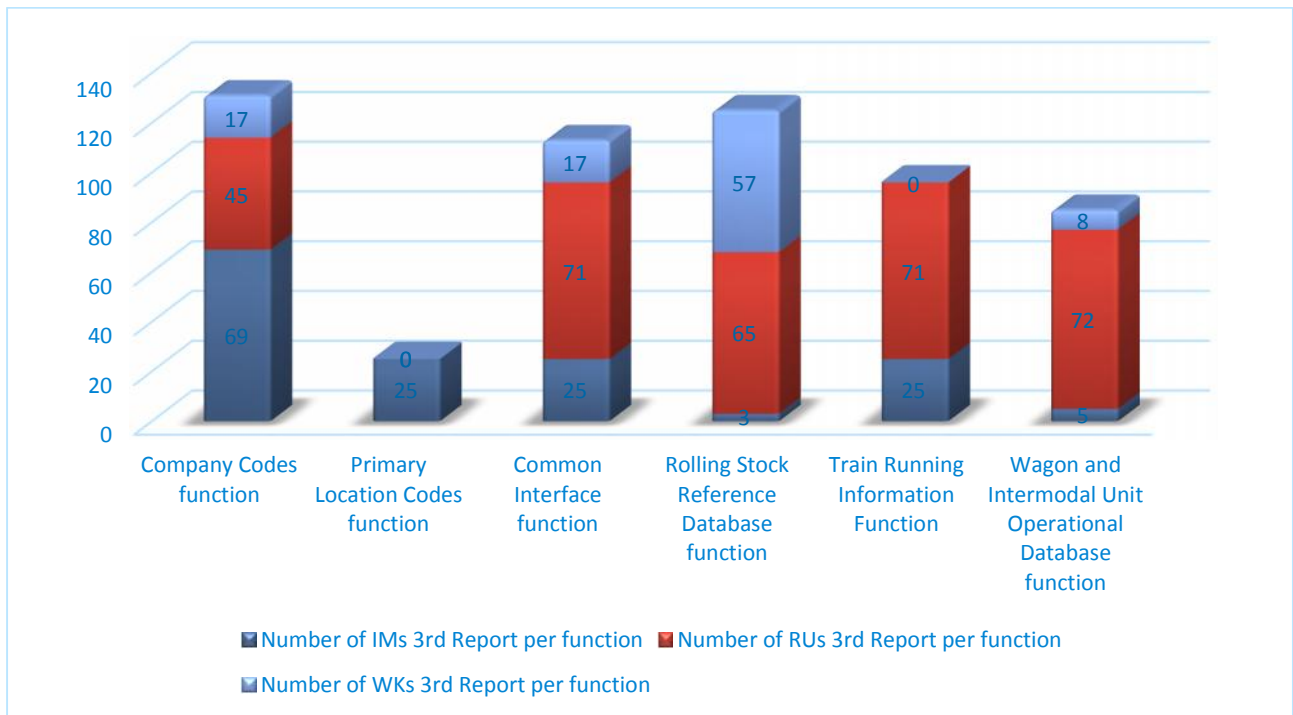


Figure 3: Companies participating in the 3rd Reporting Session per function

4.1.1. Implementation status in the 2nd half 2015 for Company Codes function

In every country, the **Average Degree of Implementation (DI)** for the **Company Codes function** is calculated from the data provided by the companies responding the JSG survey in every country without applying any weighting factor. It means that an arithmetic mean of a series of degree of implementation for this function supplied by the companies is calculated. It results the value per country and therefore the colour attributed to every country.

$$\text{Average DI} = (\sum_{i=1}^n D(i)) / n;$$

Where DI(i) = Degree of Implementation declared by the company (i) starting freight transport activities or intending to develop it in the near future,

and n = number of companies reporting in a country.

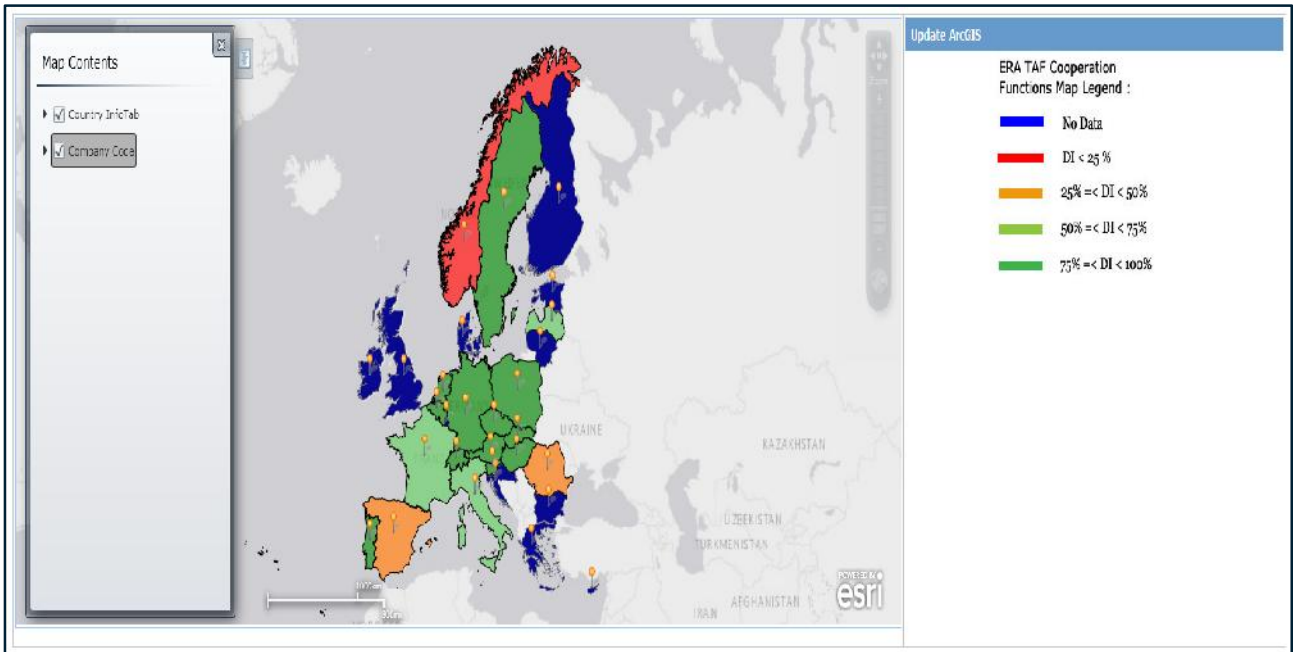


Figure 4: Company Codes function implementation in January 2015.

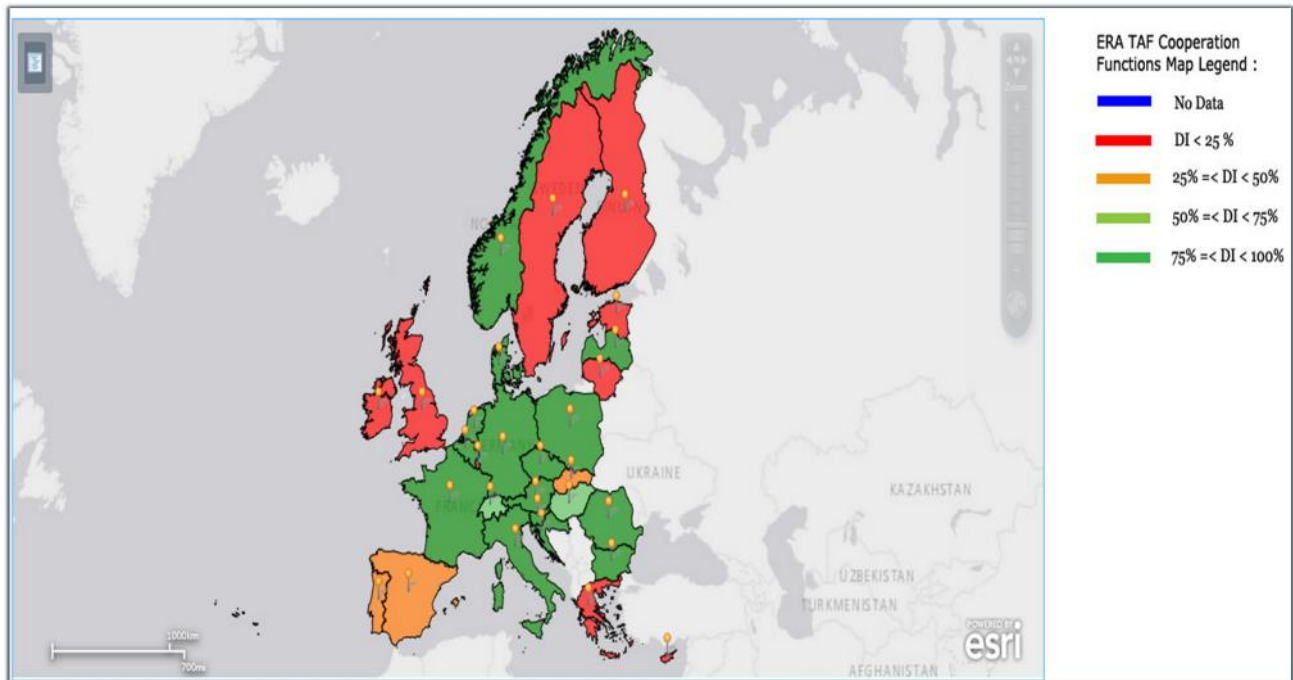


Figure 5: Company Codes function implementation in July 2015.

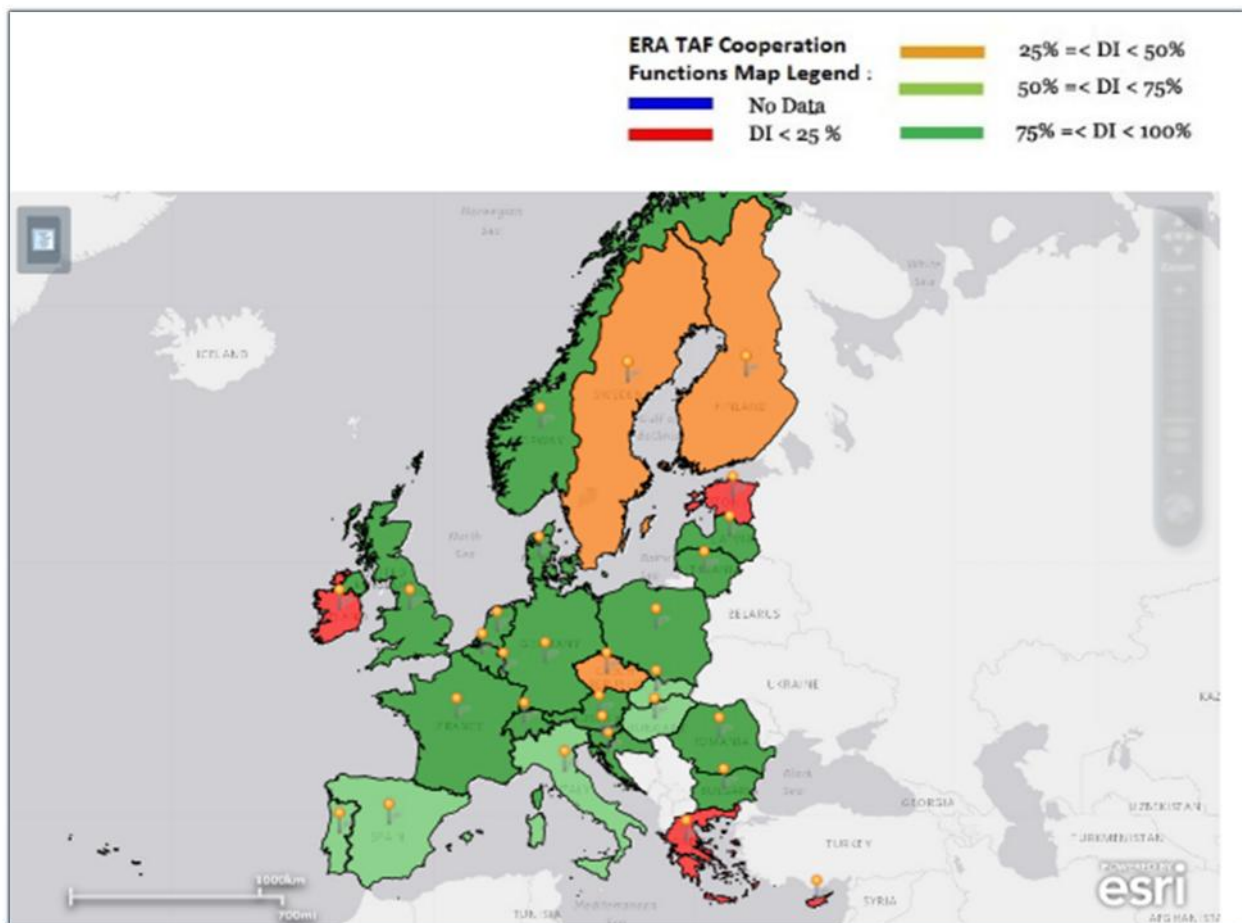


Figure 6: Company Codes function implementation in January 2016.

We can draw from the map the conclusion that in the 2<sup>nd</sup> half of 2015 almost 50% of Infrastructure Managers and Railway Undertakings have already performed the implementation of the **Company Codes** function. Indeed, the data stored in the **Annex 1** indicates an average level of **69% degree of implementation at European level for all companies having reported**.

**The question is: are the new values of the implementation for this function lower compared with the data of the 1<sup>st</sup> Status Report (3) and 2<sup>nd</sup> Status Report (4)?**

Indeed, it can be observed that the complete level of fulfilment for Company Codes function has increased by 2 IMs and by 14 RUs compared to August 2015. Thus, it means that with more than double participation in this query, the completion rate has **increased to 69% compared to 61%** level of fulfilment obtained in the 2<sup>nd</sup> release of the Status Report (4) and it is still below the value of 88% of the 1<sup>st</sup> release of the Status Report (3). In particular, **it can be outlined that the level of Implementation among Wks, 16%, is much lower than for RUs, 70%, and for IMs, 96%**. This means that at European level the deployment of this function is reaching the Executing Phase in an “optional” reference implementation; therefore, most of the countries are either coloured in light green or in green on the map. However, these figures must not hide the effort accomplished by UIP members through the adoption of a company code for RSRD2, grouping 43 Wagon Keeper companies, for the exchange of TAF TSI messages.

To get more information concerning the companies, this data can be retrieved from the **Annex 1 “Maps and Implementation Data”**. Within this raw data provided by the companies, we have collected some observations. Regarding the former incumbent companies, the company codes were already in use before the delivery of the TAF TSI Implementation Master Plan (1) (January 2013). Indeed, it means an advantage in terms of TAF TSI [2] implementation for those companies having the codes already included in UIC RICS code list and inherited by the TAF TSI CRD company codes repository. Other companies, mostly those that they have joined in the last two waves the reporting exercise, reported that they are not yet using the company codes to exchange TAF TSI [2] messages at national level, while most of the companies just use such codes for international traffic and IT tools implementing TAF TSI [2] functionality as Train Information System (TIS) tool hosted by Rail Net Europe (RNE). The comments collected spot the need to better explain to the companies the usefulness of company codes in TAF TSI context, because some companies quoted that there is a lack of information concerning TAF TSI requirements.

In addition, compared to the previous report, some small companies joining at this stage the implementation of TAF TSI, have reported that they are in the process to get the company code applying the procedure described in the ERA-TD-103: TAF TSI - Annex D.2 : Appendix C - Reference Files. Therefore, a new code for these companies will be assigned into the UIC – RICS database and replicated into the CRD hosted by RNE.

#### 4.1.2. *Implementation status in 2nd half of 2015 for Primary Location Codes function*

In every country, the **Average Degree of Implementation (DI)** for the **Primary Location Codes function** is calculated from the data provided by the companies responding the JSG survey in every country without applying a weighting factor. In the coming reports a weighting factor should be applied to every Infrastructure Manager based on the ratio of track-kms managed by the concerned Infrastructure Manager divided by the total track-kms in the country where the Infrastructure Manager operates. . It means that the value per country is the result of an arithmetic mean of a series of degree of implementation pondered with a weighting factor per company operating in this particular country. It results the value per country and therefore the colour attributed to a the country.

$$\text{Average DI} = \left( \sum_{i=1}^n D(i) \right) / n ;$$

Where DI(i) = Degree of Implementation declared by the Infrastructure Manager (i),  
and n = number of Infrastructure Managers reporting in a country.

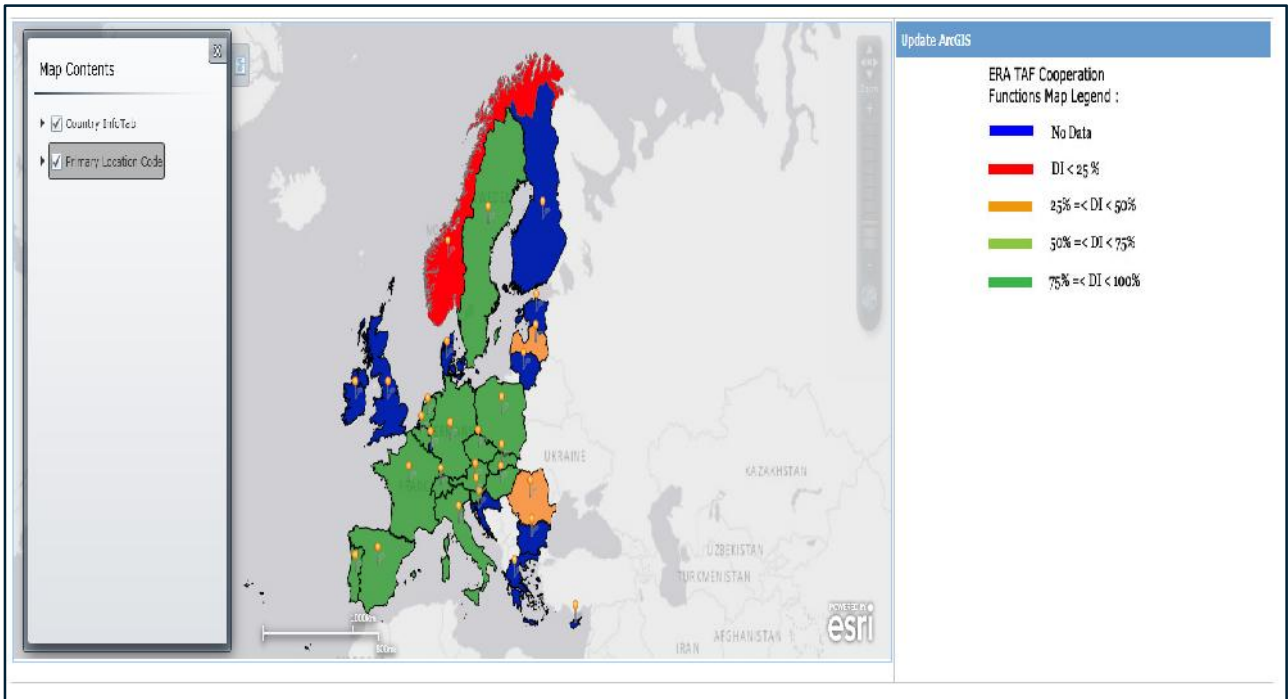


Figure 7: Primary Location Codes function implementation in January 2015.

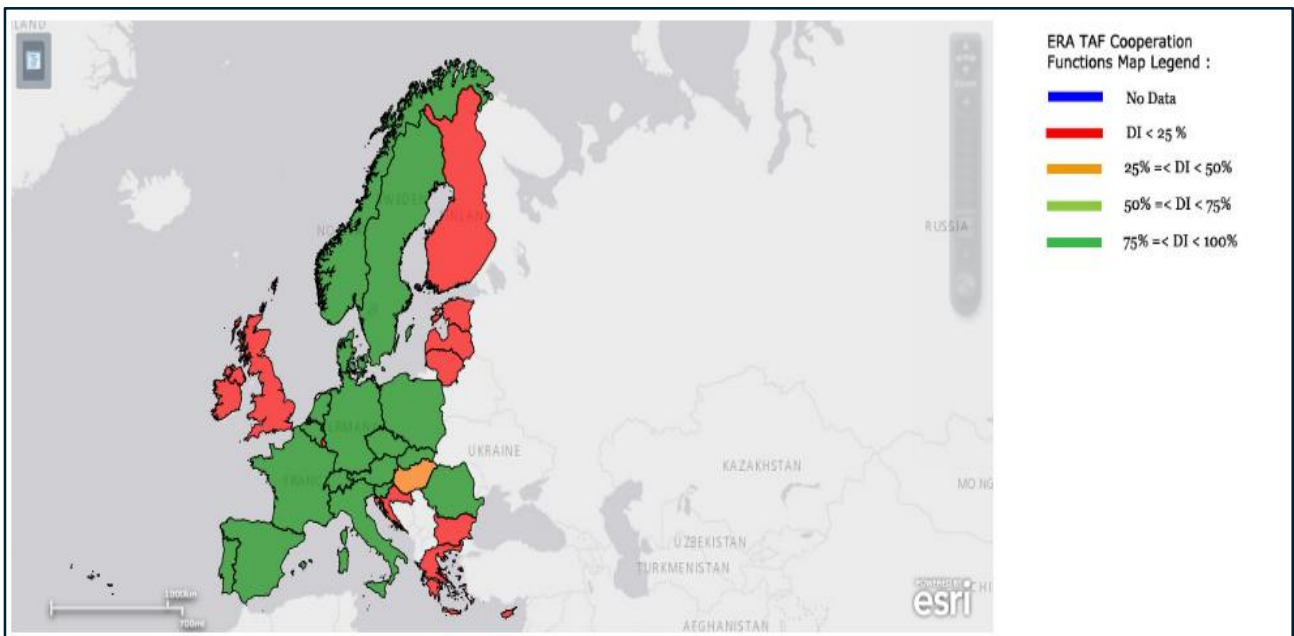


Figure 8: Primary Location Codes function implementation in July 2015.

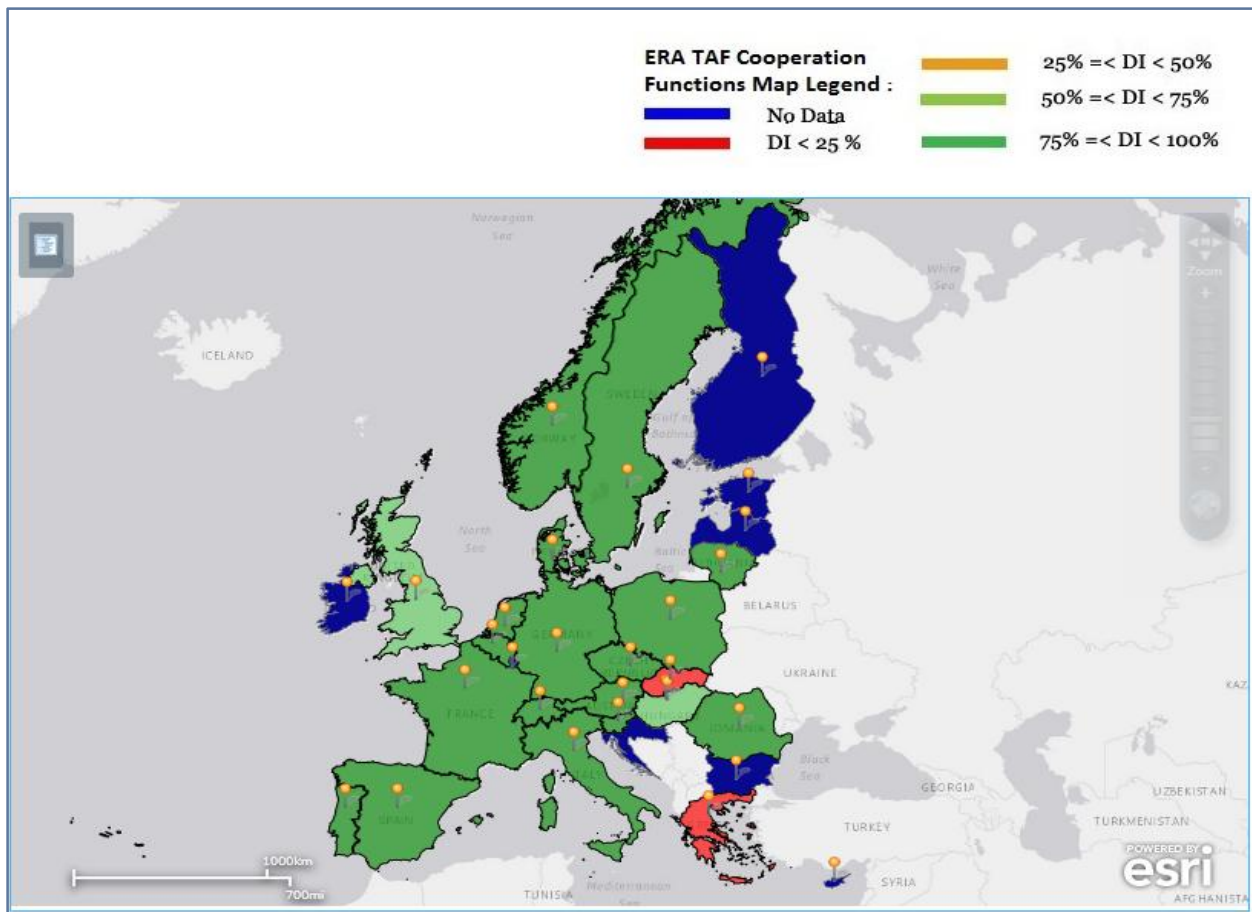


Figure 9: Primary Location Codes function implementation in January 2016.

The map confirms that in the 2<sup>nd</sup> half of 2015 most of the Infrastructure Managers have already performed the implementation of the **Primary Location Codes function**, with an average level of **86% degree of implementation at European level for all Infrastructure Managers having reported**. This means that at European level this function is ready to be in production for the exchange of TAF TSI compliant messages as it was already observed in the 2<sup>nd</sup> Status Report (4). This data has been delivered in almost all the countries by the Infrastructure Managers or Allocation Bodies as entities driving the implementation of the above mentioned function. Moreover, in most of the EU Members States and Switzerland the incumbent Infrastructure Managers have completed the deployment of this function and they have reached the “Closing & Production Phase”. In addition, it cannot be neglected the effort made by the Railway Undertakings the EU member states to cooperate with the Infrastructure Managers to improve the data quality.

In comparison with the **level of fulfilment reported in January 2016 with the accomplishment observed in July 2015 and in January 2015**, we observe a **limited evolution of the implementation, from 86% to 86% with an intermediate value of 93%**, confirming that the complete population of the Primary Location Codes is almost reached by end 2015 when the realisation was scheduled in 2013 in the TAF TSI Master Plan.

To get more information concerning the companies, this data can be retrieved from the **Annex 1 “Maps and Implementation Data”**. Within the raw data provided by the companies, we have collected some observations. Firstly, we can conclude that in most of the cases the primary location codes are already in use for international trains and in some cases for domestic trains as well. Although the Railway Undertakings stated in their report that the publication of the **Primary Location Codes** is an obligation for the Infrastructure Managers, and thereby, it has to be reported only by the IMs (decision adopted in the Telematics Cluster TAF on the 20th of January 2015 in Vienna), the Railway Undertakings are as well working together with the Infrastructure Managers to improve the quality data. Furthermore, some Railway Undertakings pointed out that the treatment of border points is still subject to discussion. Finally, some companies pointed out that the development of the reference files for some Infrastructure Managers is strongly linked to the set-up of the Rail Freight Corridors across Europe.

#### 4.1.3. Implementation status in 2nd half of 2015 for Common Interface function

In every country, the **Average Degree of Implementation (DI)** for the **Common Interface function** is calculated from the data provided by the companies responding the JSG survey in every country without applying any weighting factor. In addition, two different reference populations have been defined to better evaluate the different evolution of the implementation, one reference population is composed of the Infrastructure Managers and the second reference population is composed of the Railway Undertakings and Wagon Keepers. It means that an arithmetic mean of a series of degree of implementation provided by the companies belonging to one of these groups is calculated applying the formula below.

$$\text{Average DI} = (\sum_{i=1}^n D(i)) / n;$$

Where  $DI(i)$  = Degree of Implementation declared by the company (i) starting freight transport activities or intending to develop it in the near future,

and  $n$  = number of companies reporting in a country.

The results lead to the attribution of a colour per country reflecting the average level of deployment in this particular country.



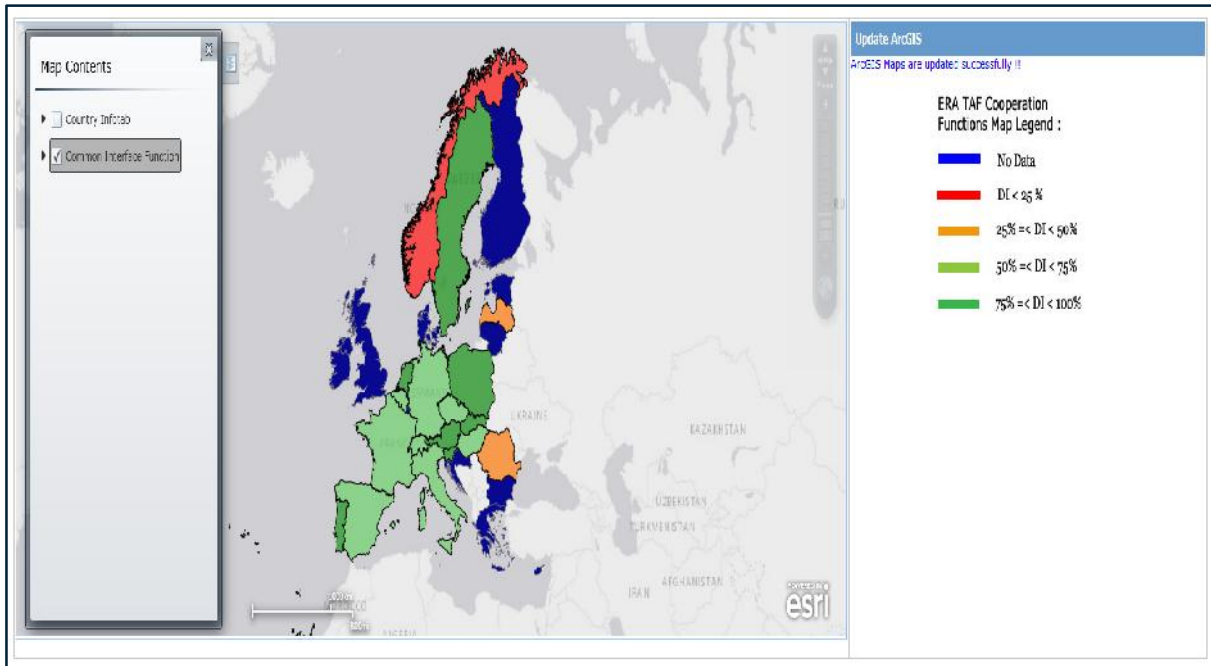


Figure 10: Common Interface function implementation in January 2015.

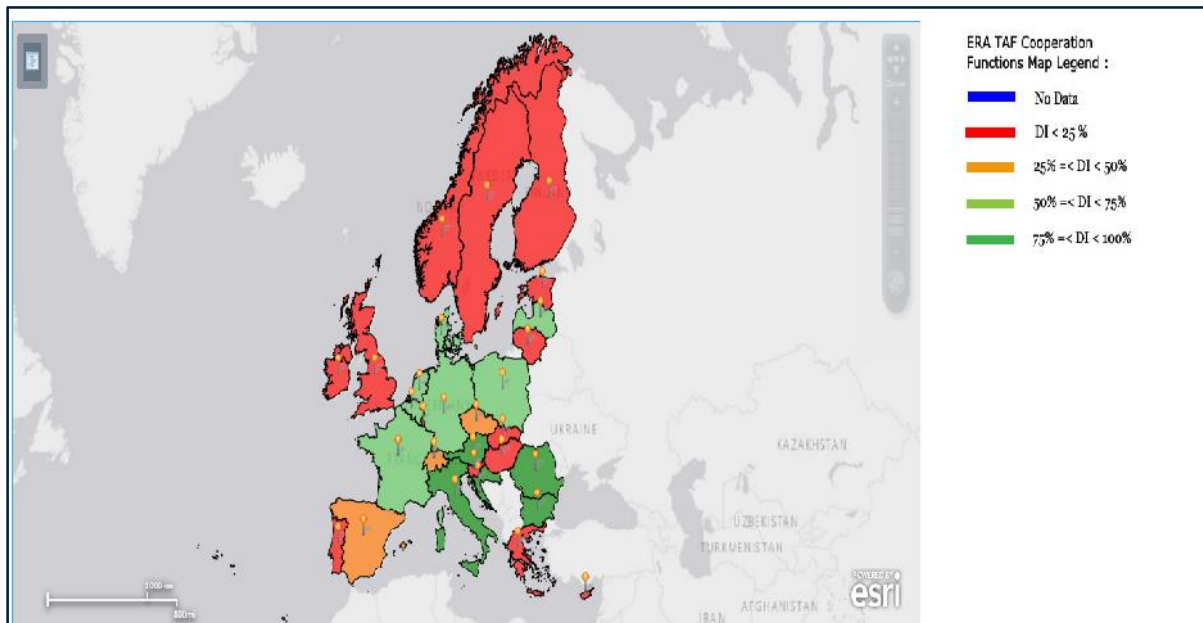


Figure 11: Common Interface function implementation for Railway Undertakings in July 2015.

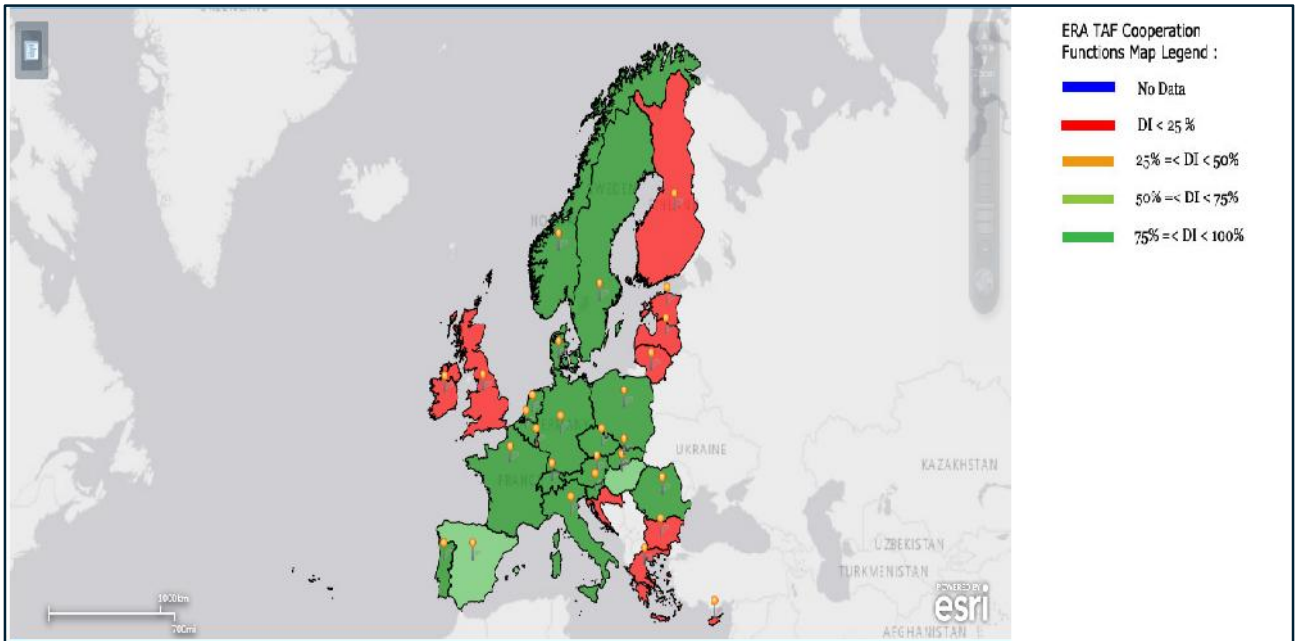


Figure 12: Common Interface function implementation for Infrastructure Managers in July 2015.

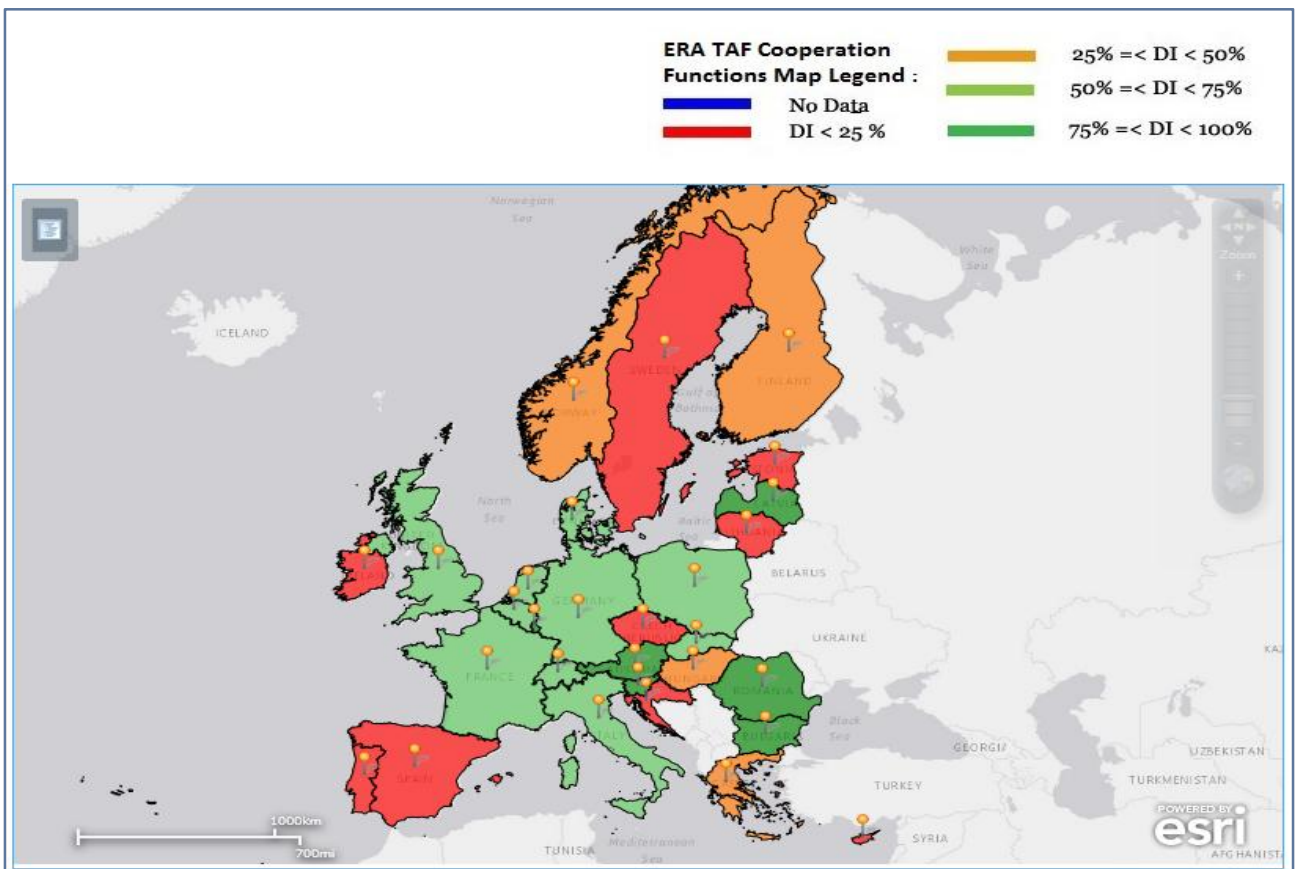


Figure 13: Common Interface function implementation for Railway Undertakings in January 2016.

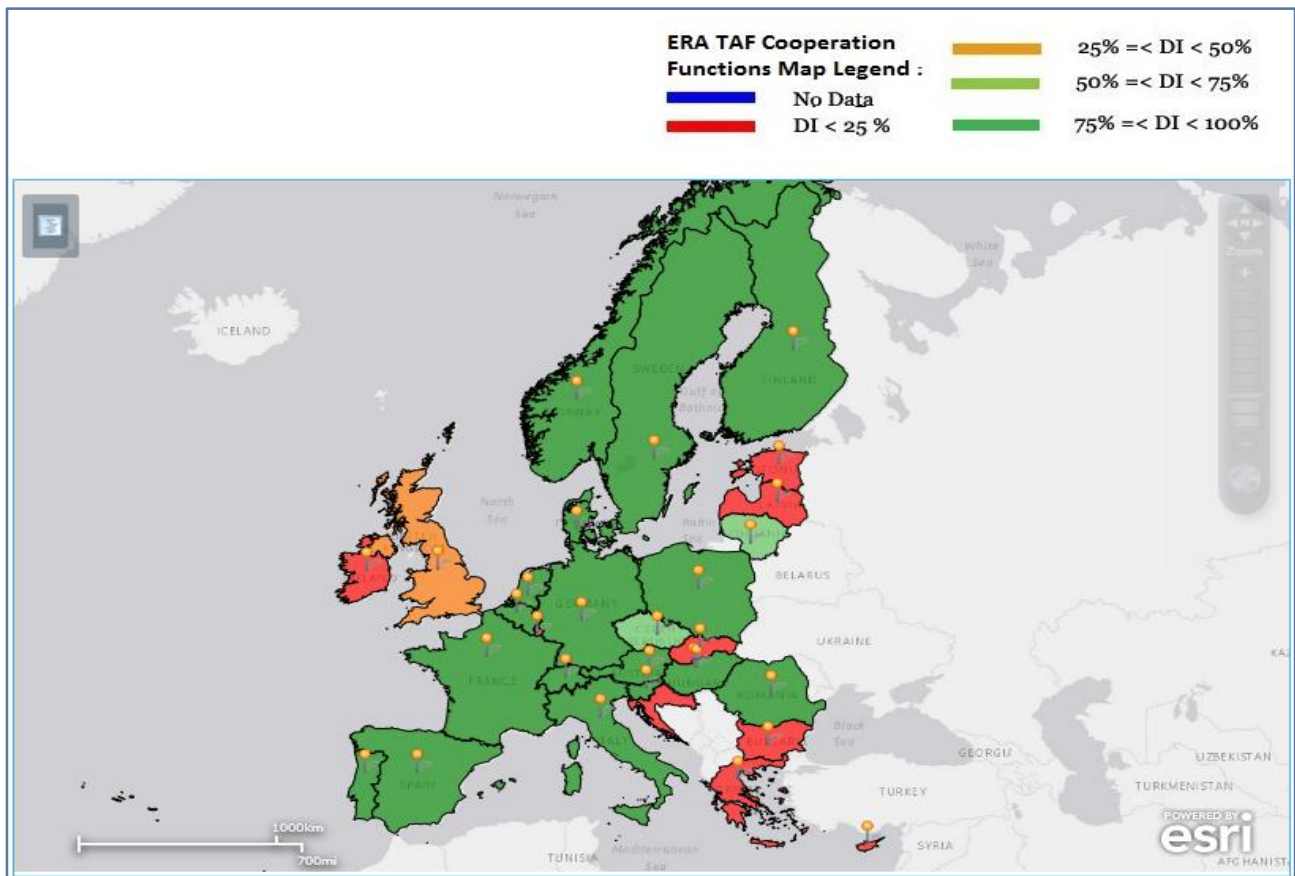


Figure 14: Common Interface function implementation for Infrastructure Managers in January 2016.

The raw data in the **Annex 1 “Maps and Implementation Data”** combined with the map published above shows that in the 2<sup>nd</sup> half of 2015 the majority of RUs is still deploying this function, while about 75 % of IMs have already finished the implementation of the Common Interface. The level of fulfilment reaches the value of **77% for the Infrastructure Managers which responded to the survey**, whereas for **the Railway Undertakings the level of accomplishment is 16 %**, because only 9 companies out of 71 Railway Undertakings responding the survey have implemented the Common Interface. The average level for the whole rail sector is **46% degree of implementation at European level for all companies having responded to the survey performed by JSG**. This means that at European level the deployment of this function is starting the “Planning Phase”, therefore, behind scheduled compared to the calendar committed by the rail sector in the **TAF TSI Master Plan, 95% degree of implementation for the Railway Undertakings and 98% for the Infrastructure Managers**.

Whether this data is compared to the level of fulfilment reported in July 2015 and in January 2015, we can observe a decline of the level of implementation, **from 63% to 56% and finally to 46% in January 2016**. This decline in the degree of implementation can be partially explained by the fact that the number of responders has doubled and many of the new Railway Undertakings joining the TAF TSI implementation are not aware of the existence of Common Interface Function to exchange TAF TSI Compliant messages. Other companies argue that they cannot implement the Common Interface until their reference Infrastructure Manager (15 Infrastructure Managers out of 25 responders Infrastructure Managers have completely implemented the

Common Interface in January 2016) has completed the implementation of the Common Interface. Within the Wagon Keepers the results are pretty similar to the performance shown by the Railway Undertakings, in such a way that only those wagon keepers members of RSRD2 are implementing the Common Interface.

To get more information concerning the companies, this data can be retrieved from the **Annex 1 “Maps and Implementation Data”**. Within this raw data provided by the companies, we have collected some observations from the companies. Some companies outlined that they don't envisage the use of **Common Interface Function** for domestic trains, because they will continue using proprietary interfaces for this traffic. Other Railway Undertakings stated that the implementation of the **Common Interface function** has not been accomplished due to budgetary constraints. Moreover, some companies have reported as well that they are testing the use of the Common Interface to exchange messages with TIS system hosted by RNE for international trains and the exchange of train running messages only for international traffic. It has been reported as well that those companies members of the “Common Components Group –RNE”, they have already available a reference implementation the Common Interface to be used, but not in operation.

#### 4.1.4. *Implementation status in 2nd half of 2015 for Rolling Stock Reference Database function*

In order to reflect the real progress of the implementation of the **Rolling Stock Reference Database function**, an overview at European Level showing the information concerning the deployment per country is considered as the most appropriate. Moreover, the value which reflects the real implementation of this function is the number of wagons stored in the Rolling stock Reference Databases set-up across Europe to fulfil the requirements quoted in the TAF TSI [2] Regulation.

Therefore, it was agreed in the 1<sup>st</sup> TAF TSI Implementation Cooperation Group meeting on 26 February 2015 to use as reference the number of wagons composing the complete fleet of wagons in Europe split down per country. In line with these assumptions, the data has been sorted in the following table estimating the percentage of wagons stored in a **Rolling Stock Reference Database**:

| Country        | Valid registrations VVR / Eurostat | Wagons In GCU | Wagons In RSRD (Data provided by RSRD <sup>2</sup> – UIP) <sup>8</sup> | Percentage Implementation <sup>9</sup> |
|----------------|------------------------------------|---------------|--|--|
| Austria        | 19.706                             | 20.052        | 7.882  | 40%                                    |
| Belgium        | 40.375                             | 10.426        | 17.361   | 43%                                    |
| Bulgaria       | -                                  | 3.492         | 244  | 7%                                     |
| Croatia        |                                    | 5.837         | 5  | 0%                                     |
| Czech Republic | 53.885                             | 40.503        | 12.932   | 24%                                    |
| Denmark        | 2.305                              | 1             | 830  | 36%                                    |
| Estonia        | -                                  | 0             | 0  | 0%                                     |
| Finland        | -                                  | 4             | -  | 25%                                    |
| Norway         | -                                  | 0             | 0  | 0%                                     |
| France         | 113.261                            | 77.319        | 53.232   | 47%                                    |
| Germany        | 102.778                            | 168.866       | 100.722  | 98%                                    |
| Greece         | 4.094                              | 0             | 2.047  | 50%                                    |
| Hungary        | 12.918                             | 11.649        | 646  | 5%                                     |
| Ireland        | -                                  | 0             | 0  | 0%                                     |
| Italy          | 44.482                             | 26.519        | 31.137   | 70%                                    |
| Latvia         | 11.210                             | 0             | 8.676  | 77,4%                                  |
| Lithuania      | -                                  | 0             | 0  | 0%                                     |
| Luxembourg     | 4.216                              | 2.966         | 8432   | 50%                                    |
| Netherlands    | 21.957                             | 18.058        | 7.026  | 32%                                    |
| Poland         | 109.165                            | 70.435        | 22.924   | 21%                                    |
| Portugal       | 5.168                              | 6             | 1.395  | 2%                                     |
| Romania        | 24.076                             | 14.561        | 963  | 4%                                     |
| Slovakia       | 33.359                             | 24.279        | 24.352   | 73%                                    |
| Slovenia       | 3.767                              | 3.468         | 54   | 2%                                     |
| Spain          | 12.760                             | 18.131        | 4.014  | 31%                                    |
| Switzerland    | 27.398                             | 17.211        | 13.425   | 49%                                    |
| Sweden         | 12.760                             | 8.820         | 4.083  | 32%                                    |
| United Kingdom | -                                  | 616           | -  | 23%                                    |

*Table 2 : Degree of Implementation per country of the Rolling Stock Reference Database function.*

<sup>8</sup> The table has been updated with the data provided by UIP-RSRD<sup>2</sup>.

<sup>9</sup> Average per country based on the data provided by the companies on the JSG survey on 10th March 2016 (<http://www.era.europa.eu/tools/TAFTSI/Pages/RU-Rolling-Stock-Reference-Database.aspx>)

Furthermore, in order to define a reference population, the Agency has decided for those countries where there is no data concerning the number of wagons in NVR register to use as reference the GCU (General Contract for Use of Wagons) register as a reference. The data concerning the number of wagons are stored in GCU (<http://www.gcubureau.org/wagons>) . Moreover, due to the need of having a visualization of this data and applying the same process that it has been applied for the above functions, this information has been uploaded in a Geographical Information System (GIS) obtaining the following map of Europe representing the implementation of this function at European level:

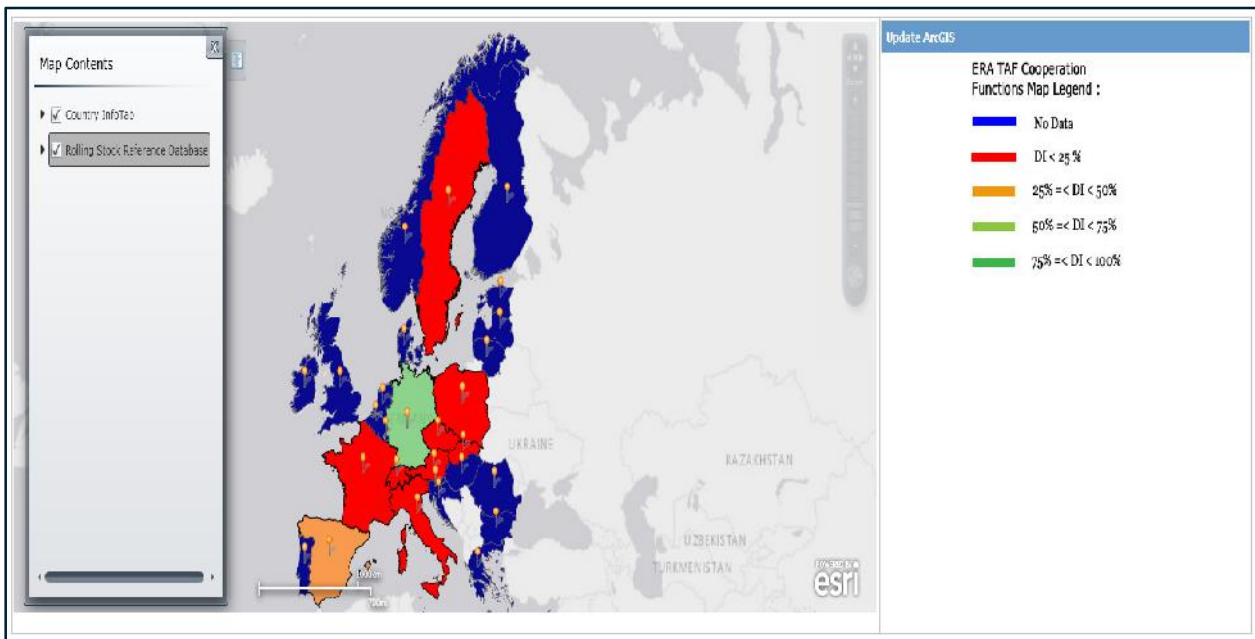


Figure 15: Rolling Stock Reference Database function implementation in January 2015.

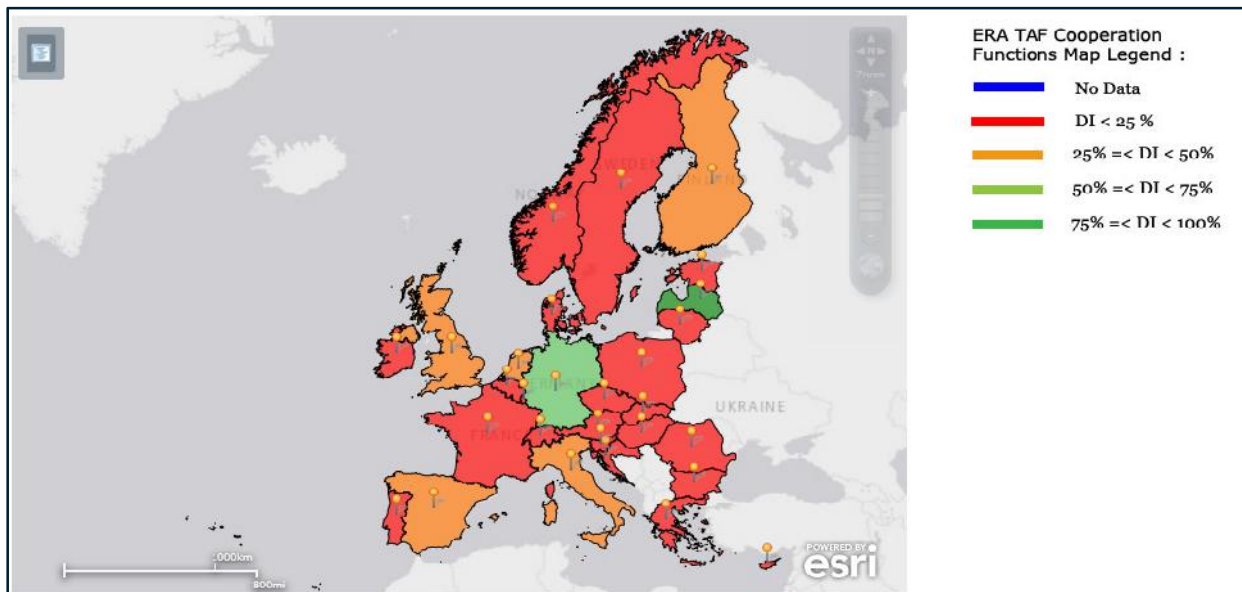


Figure 16: Rolling Stock Reference Database function implementation in July 2015.

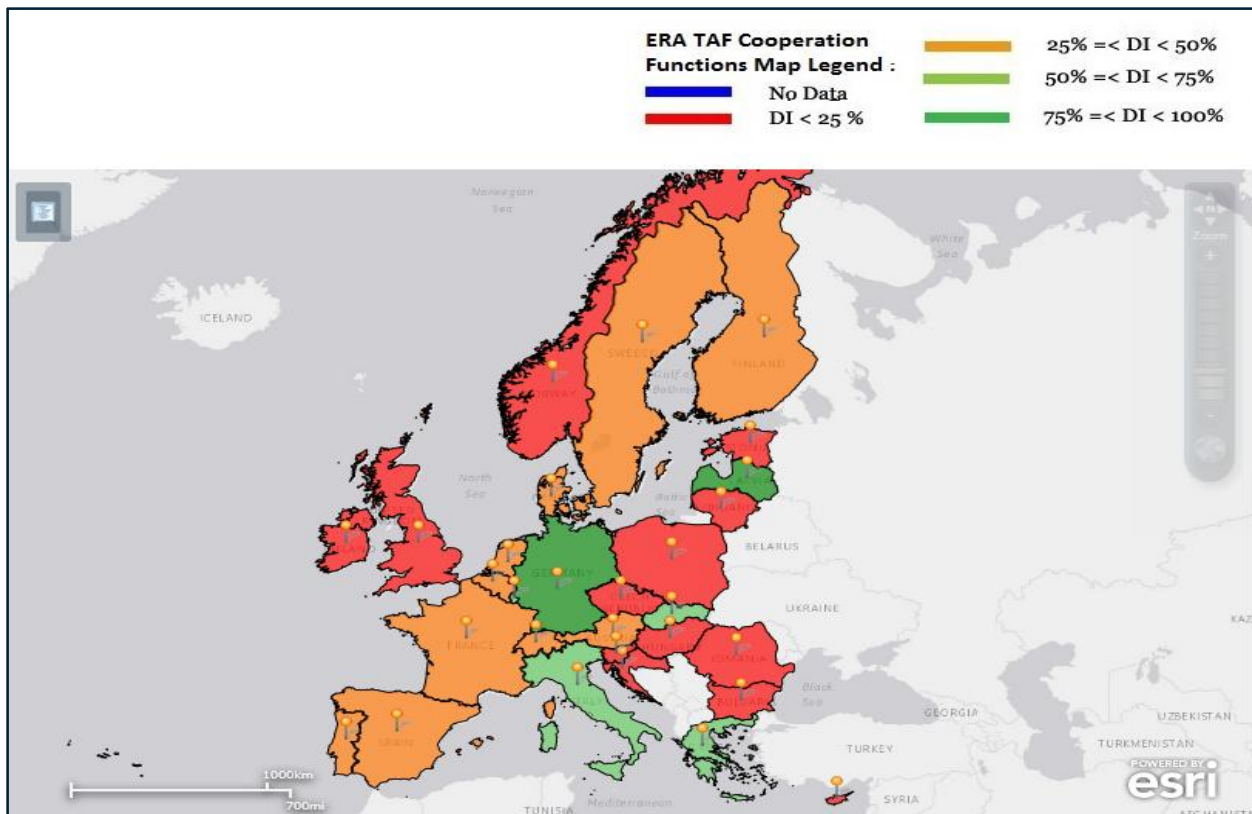


Figure 17: Rolling Stock Reference Database function implementation in January 2016.

The map shows that in the 2<sup>nd</sup> half of 2015 some Wagon Keepers and Railway Undertakings have already completed the implementation of the **Rolling Stock Reference Database function**. Indeed, the arithmetic average **degree of implementation at European level** is **29,6%**. This means that at European level the deployment of this function has reached, in average, the **“Planning Phase”** (Resource Planning, Project Work Planning (Working Break Down Structure), Migration Planning, Outsourcing Plan and Risk Management Planning). Thus, most of the countries are displayed in average on red or orange colour on the map, with some exceptions, where the level of implementation is more advanced and this means a relevant step ahead conducting to the deployment of this function compared to the results obtained in previous implementation reports. In particular, the dark green colour in Latvia and in Germany means that in these two countries most of the companies have already **“in production”** a database implementing this functionality. A level of fulfilment corresponding to the **“Executing Phase”** can be observed in Greece, Luxembourg, Italy and Slovakia, where the companies declared starting the phase of procurement and testing of the IT system deploying this functionality. Moreover, in an increasing number of countries like France, Belgium, Switzerland, Austria, Sweden, Spain, The Netherlands and Finland some companies are already facing the **“Planning Phase”**, displayed on orange colour on the map.

To get more information concerning the performance of a particular company, this data can be retrieved from the **Annex 1 “Maps and Implementation Data”**. The data has been supplied by JSG and the European association of private wagon keepers, UIP. In particular the data concerning the deployment of the RSRD<sup>2</sup> database to fulfil the requirements of the Rolling **Stock Reference Database function** are provided by UIP. For these companies using this tool, the data stored in RSRD<sup>2</sup> is complete wagon data sets (mandatory data) therefore, data completeness is 100% ensured for recorded wagons. These figures do not cover keepers

having indicated that they will use RSRD<sup>2</sup> but which are currently in a stage of collecting required wagon data or preparing the interface to RSRD<sup>2</sup>.

The degree of implementation shows a slight growth compared to the 7% quoted in the previous report issued in April 2015 (1<sup>st</sup> Status Implementation report (3)) and a delay in comparison with the **target Implementation Milestone for realisation of the RSRD function** according to the TAF TSI Master Plan (1), **2015**. However, this does not mean that no company has implemented this function, since only the average data is displayed on the map. Indeed, more than 34 European companies have already in place this functionality through the RSRD<sup>2</sup> tool.

#### 4.1.5. Implementation status in 2nd half of 2015 for Train Running Information Function

In order to have a better view of the real situation about the implementation of the **Train Running Information Function** the 2<sup>nd</sup> half of 2015, the implementation data will be shown in different maps for Railway Undertakings and Infrastructure Managers:

- )] One map to show the realisation level of the **Train Running Information Function** at network level by the Infrastructure Managers (IMs) at country level. This information corresponds to the data provided by 25 Infrastructure Managers (almost 90% of the market in terms of track-kms).
- )] A second map to show the deployment of the **Train Running Information Function** by the Railway Undertakings (RUs) at country level. The values provided by the Railway Undertakings have been weighted to reflect the market share of these companies in their national rail market. This data is based on the response provided, by 56 Railway Undertakings, representing approximately 80% of the market share for RUs in terms of tonne-kms.

To better estimate the degree of implementation, the information provided by the rail companies is compared in both cases with the milestones prescribed in the TAF TSI Master Plan (1). The weighting factor used to weigh the RUs declared data in the JSG survey is based on the figures stated in the report “**Fourth report on monitoring development in the rail market**” issued by the European Commission in June 2014, where **Annex 19** provides the figures concerning “Market shares of railway undertakings (2011-2012)”. While for the Infrastructure Managers a Weighting Factor is not yet used in this report. However, in common reports a Weighting Factor will be applied to the degree of implementation declared by the Infrastructure Managers based on the ratio of track-kms managed by the concerned Infrastructure Manager divided by the total track-kms in the country.

Regarding the Railway Undertakings, an addition of a series of degree of implementation weighted by a Weighting factor is calculated using the following formula:

$$\text{Average DI} = \sum_{i=1}^n D(i) \times W(i);$$

Where DI(i) = Degree of Implementation declared by the company (i) starting freight transport activities or intending to develop it in the near future,

WF(i) = Weighting Factor for company (i) based on “**Fourth report on monitoring development in the rail market**” issued by the European Commission in June 2014



and  $n$  = number of companies reporting in a country.

Concerning the Infrastructure Managers an arithmetic mean of a series of degree of implementation pondered by a Weighting factor is calculated using the following formula:

$$\text{Average DI} = \left( \sum_{i=1}^n D(i) \right) / n ;$$

Where  $DI(i)$  = Degree of Implementation declared by the Infrastructure Manager ( $i$ ),

and  $n$  = number of Infrastructure Managers reporting in a country.

The results lead to the attribution of a colour per country reflecting the average level of deployment in this particular country. Therefore, two sets of maps with the implementation levels are displayed:

- ) Evolution of the level of implementation of the function “**Train Running Information**” for the Infrastructure Managers in the 2<sup>nd</sup> and 3<sup>rd</sup> implementation reports (July 20015 and January 2016).
- ) Evolution of the level of implementation of the function “**Train Running Information**” for the Railway Undertakings in the 2<sup>nd</sup> and 3<sup>rd</sup> implementation reports (July 20015 and January 2016).

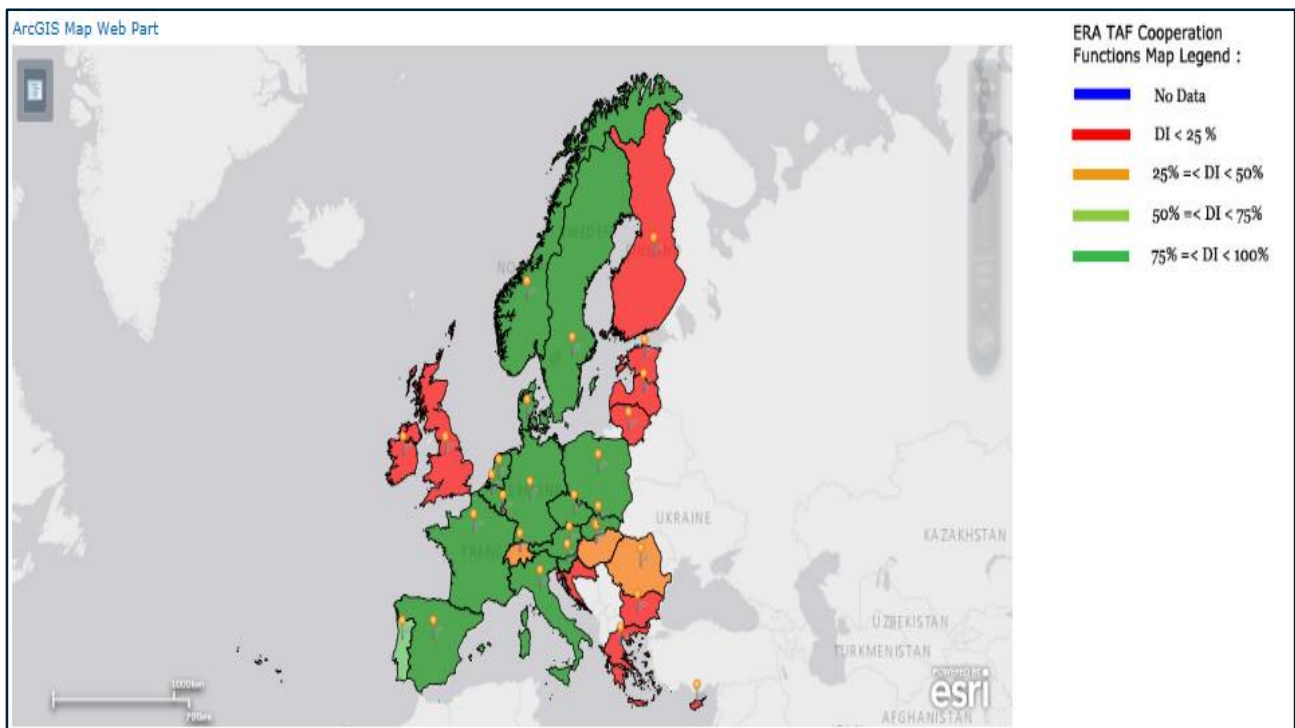


Figure 18: Train Running Information Function implementation for Infrastructure Managers in July 2015.

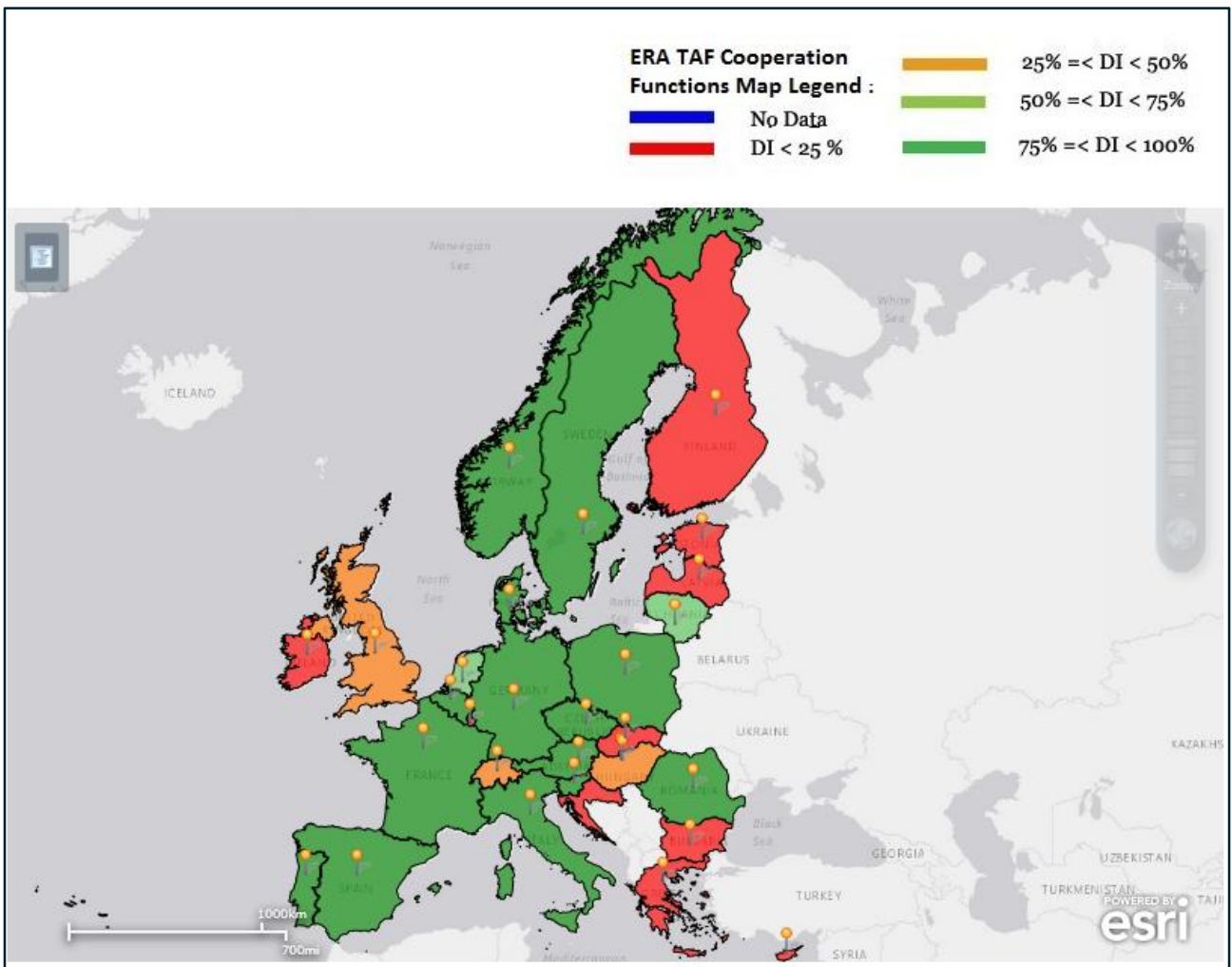


Figure 19: Train Running Information Function implementation for Infrastructure Managers in January 2016.

The data published on the Annex 1 “Maps and Implementation Data” combined with the map published above shows that in the 2<sup>nd</sup> half of 2015 the majority of the **Infrastructure Managers** have already started the deployment of this function having reached a degree of implementation of **63%**. Therefore, the IMs are quite advanced in the deployment of this key TAF function because they are already in average in the Executing Phase.

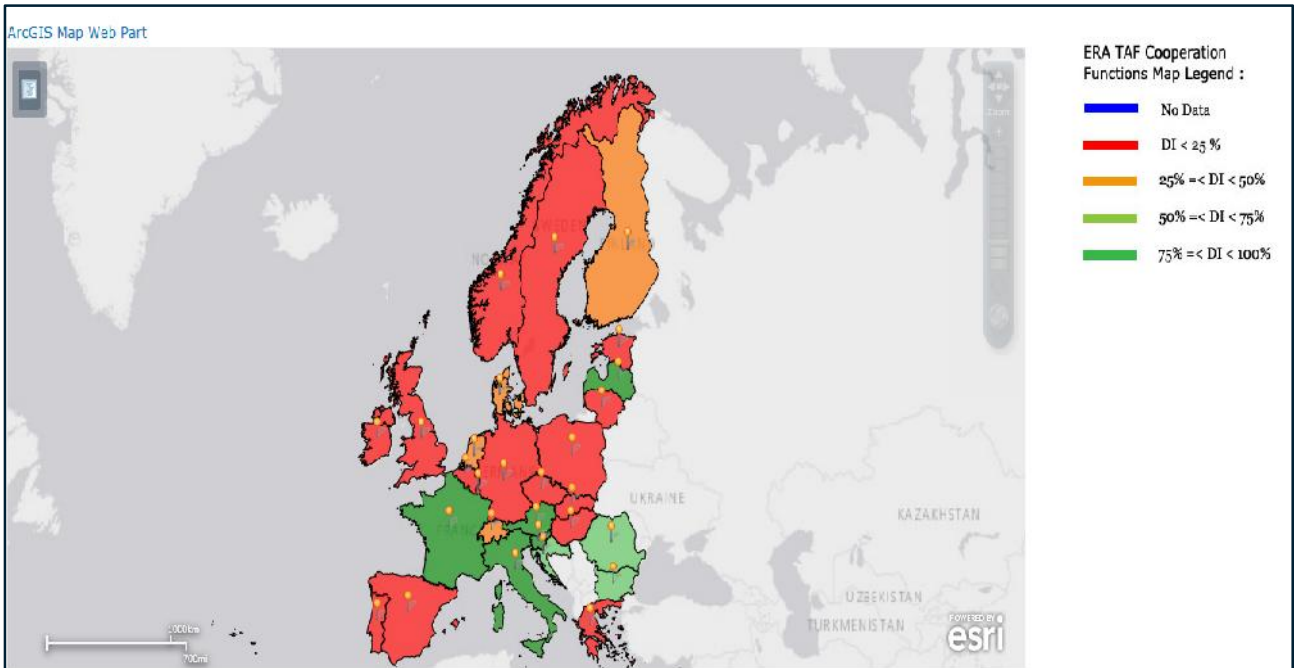


Figure 20: Train Running Information Function implementation for Railway Undertakings in July 2015.

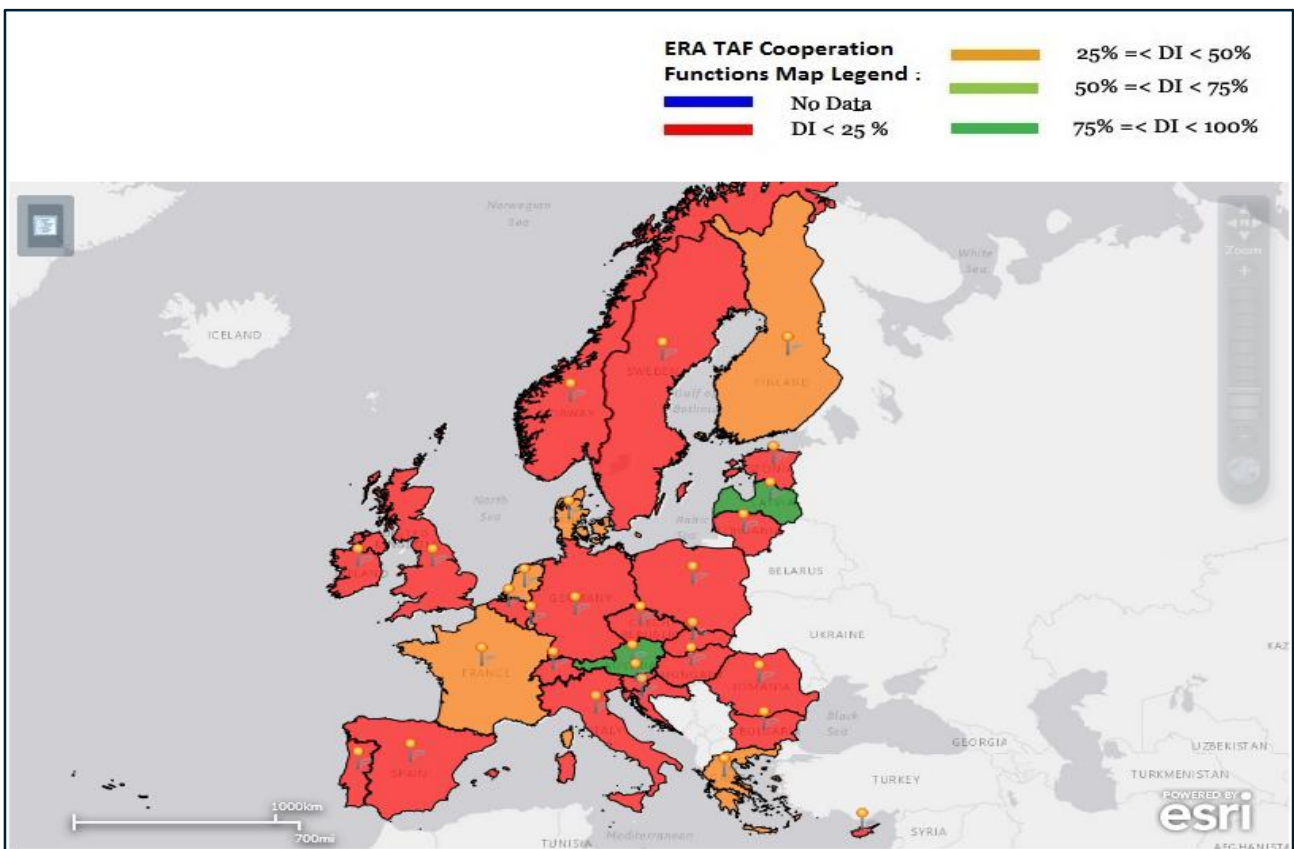


Figure 21: Train Running Information Function implementation for Railway Undertakings in January 2016.

Moreover, concerning the **Railway Undertakings**, the weighted level of implementation is lower compared to the IMs, in particular the degree of implementation of the companies responding the online JSG questionnaire is **11%**, decreasing the level of fulfilment reached in the 1<sup>st</sup> half 2015, **24,20%**.

The average level for the whole rail sector is **37%** degree of implementation at European level for all companies having reported. This means that at European level the deployment of this function is reaching in still at the “Planning Phase”.

In every country, the average level of deployment is calculated from the data provided by the companies responding the JSG survey in that country, thus this average defines the colour attributed to a particular country.

To get more information concerning the companies, this data can be retrieved from the **Annex 1 “Maps and Implementation Data”**. Within this raw data provided by the companies, we have collected some observations from the companies. In most of the cases the companies are testing **Train Running function** with pilot projects. Moreover, the companies agreed in the context of the Telematics Cluster TAF on the 1st of July 2015 in Vienna that the stakeholder IM & RU only reported the Train Running Information Message.

Beyond this, many infrastructures managers quoted in the JSG survey that Train running information is being sent to RNE TIS system and only for international traffic. Moreover, some of them stressed that they will be able to exchange these messages subject to the availability of the Common Interface in production. This brings positive inputs to the Railway Undertakings in order to decide about the implementation of this functionality, because for them the delivery of this message using TAF TSI compliant format depends on the implementation schedule of their reference Infrastructure Managers and they only envisage its use for international traffic.

Overall, the results are quite positive due to the fact the target Implementation milestone according to the TAF TSI Master Plan is 2017.

4.1.6. Implementation status in 2nd half of 2015 for Wagon and Intermodal Unit Operational Database (WIMO) Function

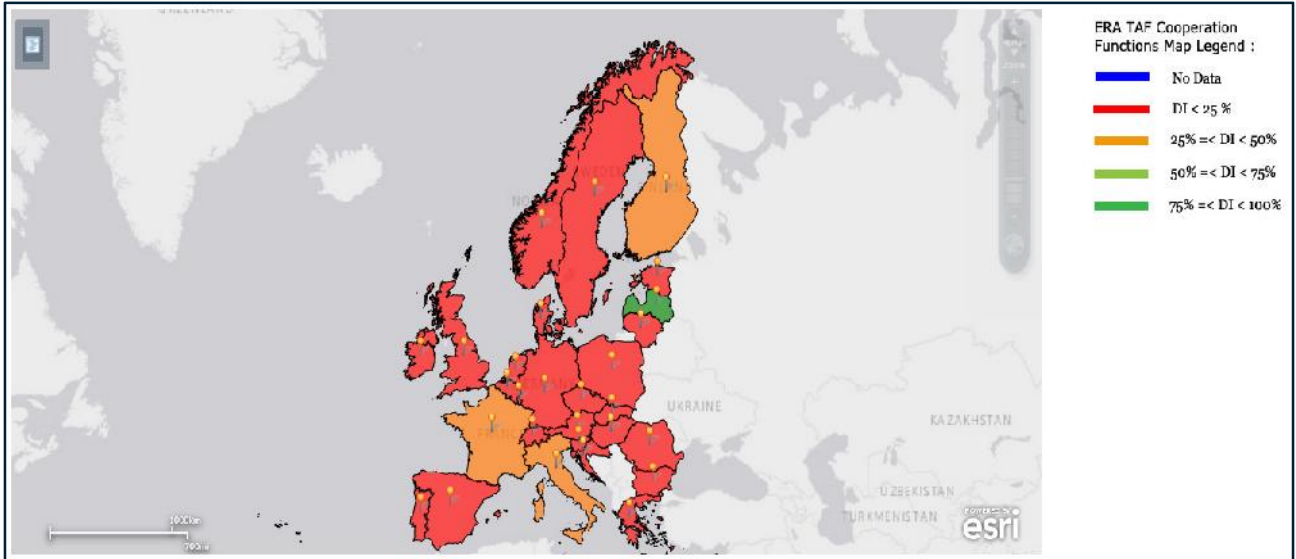


Figure 22: Wagon and Intermodal Unit Operational Database (WIMO) Function implementation for Railway Undertakings in July 2015.

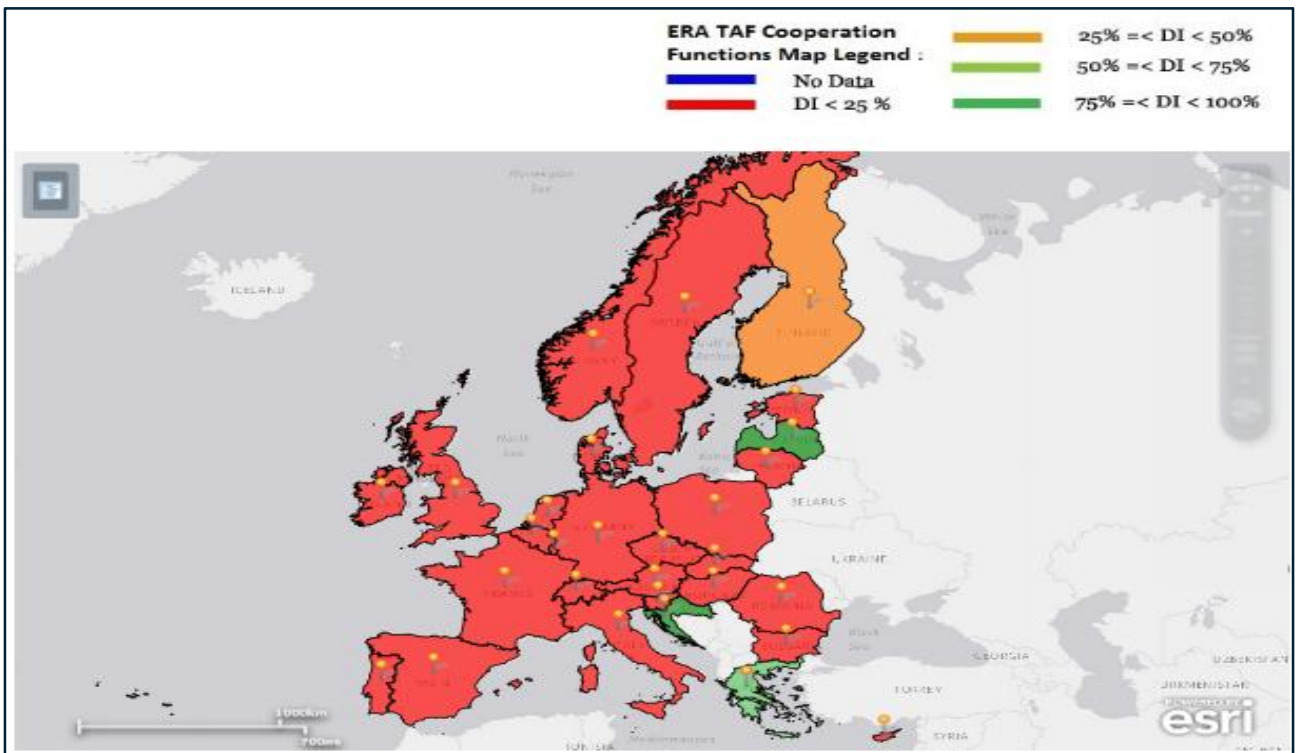


Figure 23: Wagon and Intermodal Unit Operational Database (WIMO) Function implementation for Railway Undertakings in January 2016.

The **Wagon and Intermodal Unit Operational Database (WIMO) Function** is a function to be implemented **only by Railway Undertakings**. Therefore, the map shows that in the 2<sup>nd</sup> half of 2015 the Railway Undertakings have already started the implementation of the **Wagon and Intermodal Unit Operational Database (WIMO) Function**, reaching a **degree of implementation of 7 %** for the companies having answered to the survey performed by the JSG. The degree of implementation has decreased compared to the **11, 28%** of the survey performed in July 2015. This means that at European level the deployment of function is in the “Initiating Phase” and it is considered in line with the target implementation milestone for realisation of the WIMO function according to the TAF TSI Master Plan (1), the year 2016.. Nevertheless, there is a high risk of not meeting the deadline committed by the companies in the TAF TSI Master Plan (1), thereby the Agency and the JSG are mandated by the TAF TSI Steering Committee to better define the compliance with TAF TSI provisions for this particular function.

The baseline to compare the data declared by the Railway Undertakings to better estimate the degree of fulfilment is the TAF TSI Master Plan (1), where the milestones for the implementation of this functionality are described). The weighting factor used for the RUs is based on the figures stated in the report “**Fourth report on monitoring development in the rail market**” issued by the European Commission in June 2014, where **Annex 19** provides the figures concerning “Market shares of railway undertakings (2011-2012)”.

In every country, the **Average Degree of Implementation (DI)** for the **Wagon and Intermodal Unit Operational Database (WIMO) Function** is calculated applying weighting factor (WF) per company to the data provided by the companies responding the JSG survey. It means that an addition of a series of degree of implementation pondered by a Weighting factor is calculated using the following formula:

$$\text{Average DI} = \frac{\sum_{i=1}^n D(i) \times W(i)}{n};$$

Where DI(i) = Degree of Implementation declared by the company (i) starting freight transport activities or intending to develop it in the near future,

WF(i) = Weighting Factor for company (i) based on “**Fourth report on monitoring development in the rail market**” issued by the European Commission in June 2014

and n = number of companies reporting in a country.

The results lead to the attribution of a colour per country reflecting the average level of deployment in this particular country. In addition to these results, the companies have provided some comments concerning the tools in use for the deployment of this functionality. In particular, most of the incumbent former Railway Undertakings stated that they are using or they will use RAILDATA-ISR to implement the **Wagon and Intermodal Unit Operational Database (WIMO) Function**.

4.1.7. Evolution of RU-IM functions per corridor in 2nd half of 2015

In line with the agreements reached in the Kick-Off meeting of the TAF TSI Implementation Co-operation Group, this report includes information concerning the implementation of RU-IM Communication functions per corridor. In particular, this report contains the degree of implementation per corridor for the Train Running Information Function. The data displayed on the map for the corridors is obtained from the data delivered by the Infrastructure Managers for the implementation of Train Running Information Function .

The level of implementation for every corridor is the same as the level of deployment in the country where the corridor is located. That means that the degree of implementation corresponds to the same level shown in the map summarising the level of implementation in chapter 0.1.5. “Implementation status in 2nd half of 2015 for Train Running Information Function” .

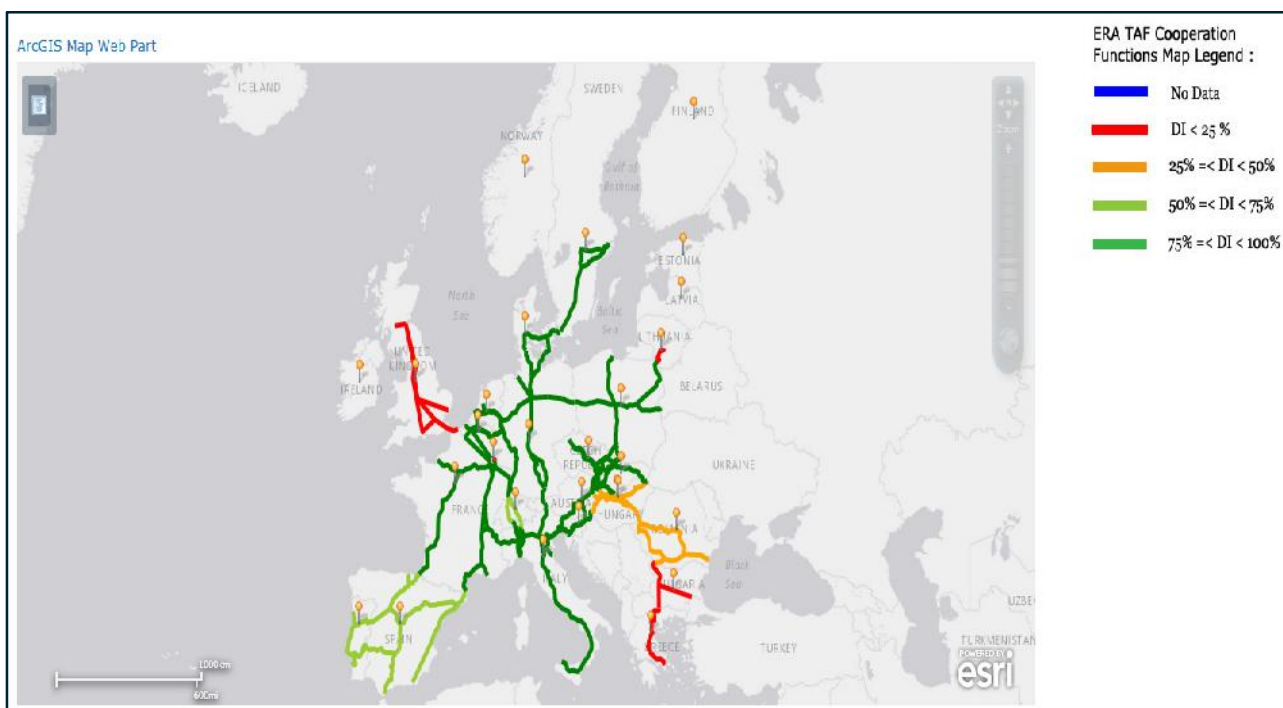


Figure 24: Corridor implementation of Train Running Information Function for Infrastructure Managers in July 2015.

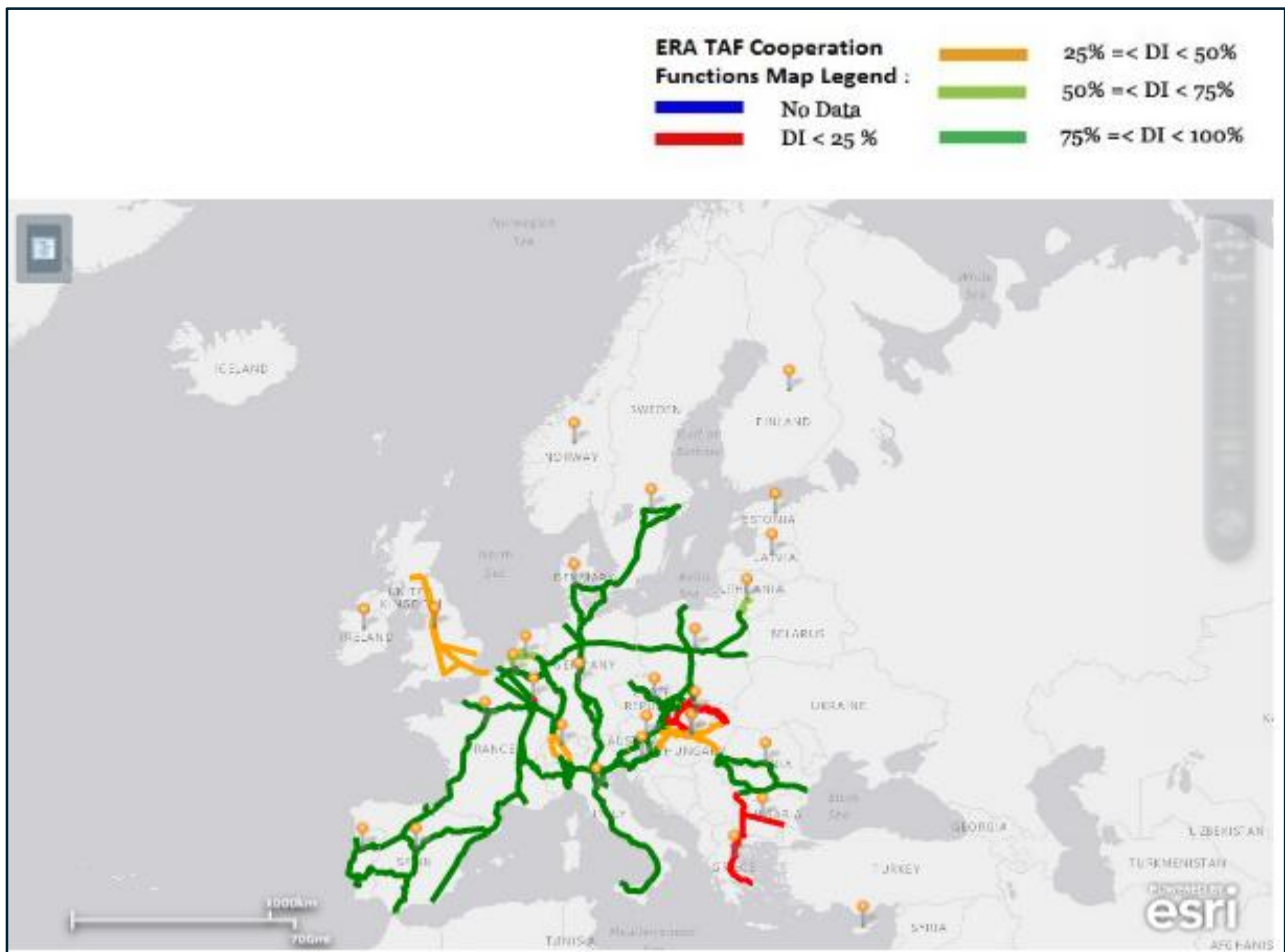


Figure 25: Corridor implementation of Train Running Information Function for Infrastructure Managers in January 2016.

Comparing the implementation per corridors in the 1<sup>st</sup> half 2015 and the 2<sup>nd</sup> half 2015, we can observe a positive evolution, in such a way that we can conclude that in most of the corridors defined by the Regulation (EU) No 1316/2013 the TAF TSI Message Train Running Information can be delivered by the Infrastructure Managers responsible of every corridor section under request by the concerned Railway Undertaking. Nevertheless, in some sections of corridors RFC2 (North Sea Mediterranean) and RFC7 (Orient) more resources should be allocated in the mid-term to meet the implementation target milestone in 2017.



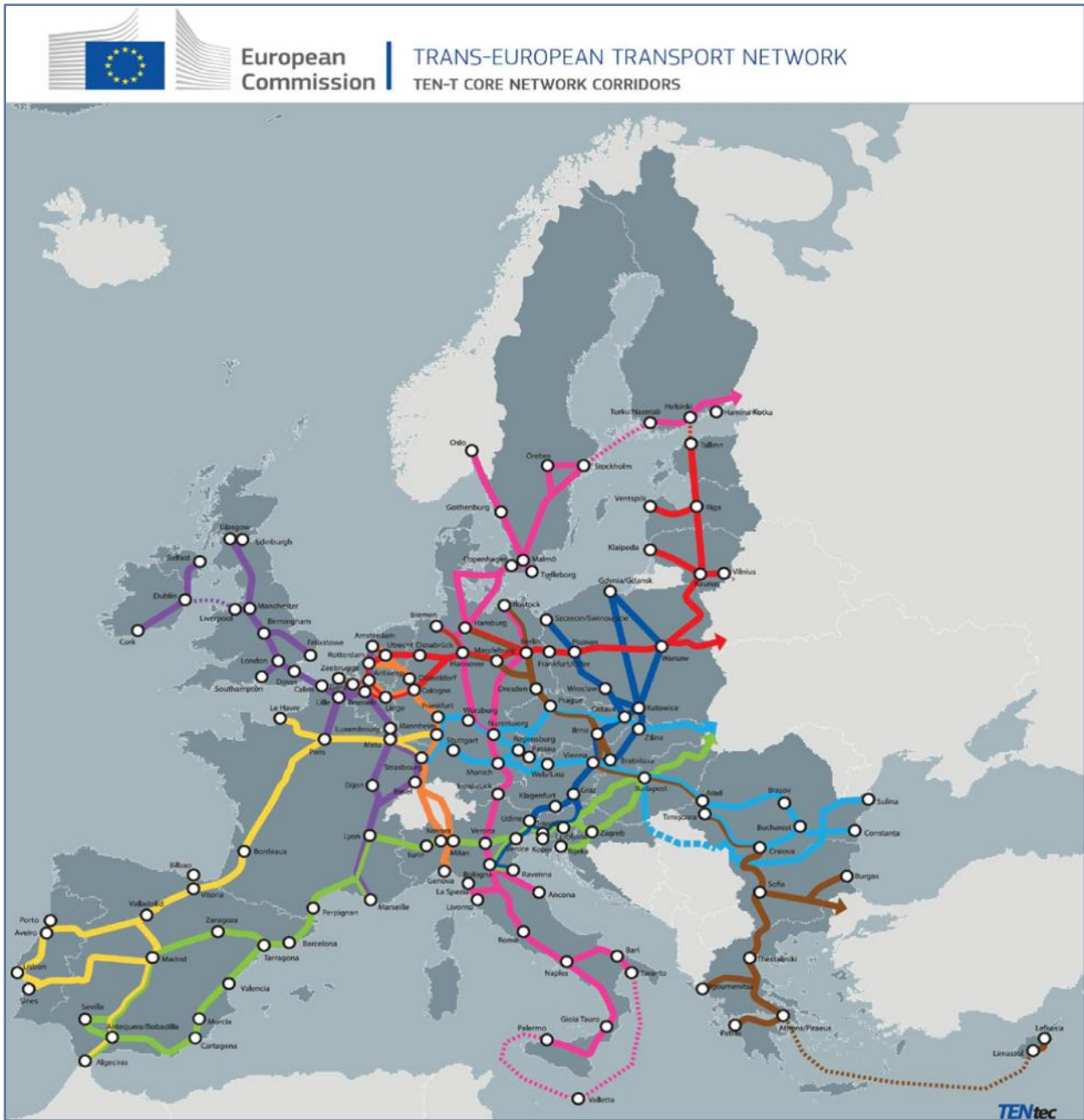


Figure 26: Rail Freight Network Corridors defined by Regulation (EU) No 1316/2013.

## 5. Progress of the Implementation of TAF TSI functions from this report compared with previous reports

Therefore, at a first glance the target milestones quoted in the Master Plan (1) are met in most of the cases for the first functions by 2<sup>nd</sup> half 2015. However, the comparison with the 1<sup>st</sup> and 2<sup>nd</sup> Status reports (3) (4) shows that contrary to the expectations the level of accomplishment has declined for some functions:

|                               | Primary Location Codes Function | Company Codes Function      | Common Interface Function  | Rolling Stock Reference Database Function | Train Running Information Function (IM) | Train Running Information Function (RU) | Wagon and Intermodal Unit Operational Database Function (RU) |
|-------------------------------|---------------------------------|-----------------------------|----------------------------|---|---|---|--|
| 1st Status Report             | 86%                             | 88%                         | 63%                        | 7%  | 0                                       | 0                                       | 0  |
| 2nd Status Report             | 93%                             | 61%                         | 56%                        | 17,28%                                    | 59,07%                                  | 24,2%                                   | 11,28% <sup>10</sup>   |
| 3 <sup>rd</sup> Status Report | 86%<br>[100%] <sup>11</sup>     | 69%<br>[100%] <sup>12</sup> | 46%<br>[97%] <sup>13</sup> | 29,6%<br>[76%] <sup>14</sup>              | 63%<br>[62%] <sup>15</sup>              | 11%<br>[33%] <sup>16</sup>              | 7%<br>[39%] <sup>17</sup>                                    |

Table 3 : Summary of the degree of implementation along the three reports of implementation.

Thus, different trends can be observed:

- J For some functions we have passed from a clear situation of stagnation over two reporting sessions, yellow colour, to a positive evolution for one function, Company Codes, and to the confirmation of a negative trend for two functions, Common Interface and Rolling Stock Reference Database. This negative evolution may be partially justified because the reporting population has been increased in such a way that the statistics may not reflect well the real situation.
- J Bearing in mind that the implementation of the Rolling Stock Reference Database Function was scheduled by end 2015, the gathered data confirmed in the 2<sup>nd</sup> half 2015 an insufficient progress for the implementation of this function. Thereby, although an effort has been made by the companies

<sup>10</sup> Light red color indicates a negative trend, while light green one indicates a positive one.

<sup>11</sup> Target Implementation Milestone in 2015 for Primary Location Codes Function - Master Plan (1)

<sup>12</sup> Target Implementation Milestone in 2015 for Company Codes Function - Master Plan (1)

<sup>13</sup> Target Implementation Milestone in 2015 for Common Interface Function - Master Plan (1)

<sup>14</sup> Target Implementation Milestone in 2015 for Rolling Stock Reference Database Function - Master Plan (1)

<sup>15</sup> Target Implementation Milestone in 2015 for Train Running Information Function (IMs) - Master Plan (1)

<sup>16</sup> Target Implementation Milestone in 2015 for Train Running Information Function (Rus) - Master Plan (1)

<sup>17</sup> Target Implementation Milestone in 2015 for Wagon and Intermodal Unit Operational Database Function - Master Plan (1)

in the 2<sup>nd</sup> half 2015 to cope with the delay, the colour assigned is red, because the deployment of this function is clearly behind schedule and delayed compared to the implementation calendar. Therefore, we can conclude that there is an issue regarding the deployment of this functionality and this issue should be treated in the context of the Agency TAF TSI Implementation Cooperation Group and the TAF TSI Steering Committee.

- J Concerning the deployment of the Common Interface, it can be outlined that there is a clear negative trend. This remark is endorsed with the comments provided by the companies, in particular Railway Undertakings, questioning the usefulness of the Common Interface and moreover manifesting that they are mostly not aware of the TAF TSI requirements concerning this tool.
- J On the other hand, the evolution of the Company Codes Function is rather positive in the 2<sup>nd</sup> half 2015. Indeed, this result is substantiated by the fact that less companies stated that they do not know the procedure to get a company code. That is the argument to attribute to this function a green colour. However, the evolution of this function should remain under surveillance in the Agency TAF TSI Implementation Cooperation Group until it can be confirmed that this is a stable trend.
- J In contrast, the warning already raised in the 2<sup>nd</sup> Status Report (4) for the function Wagon and Intermodal Unit Operational Database Function to be realised by the Railway Undertakings is confirmed with the results of the 3<sup>rd</sup> Reporting campaign and therefore some measures to mitigate the risk of not realisation should be discussed in the frame of the Agency TAF TSI Implementation Cooperation Group.
- J Finally, the comparison between the 1<sup>st</sup> Status report (3), the 2<sup>nd</sup> Status Report (4) and the results got for the 3<sup>rd</sup> one clearly indicates that the evolution of the Primary Location Codes, Train Running Information shows a positive trend between these three temporary snapshots.

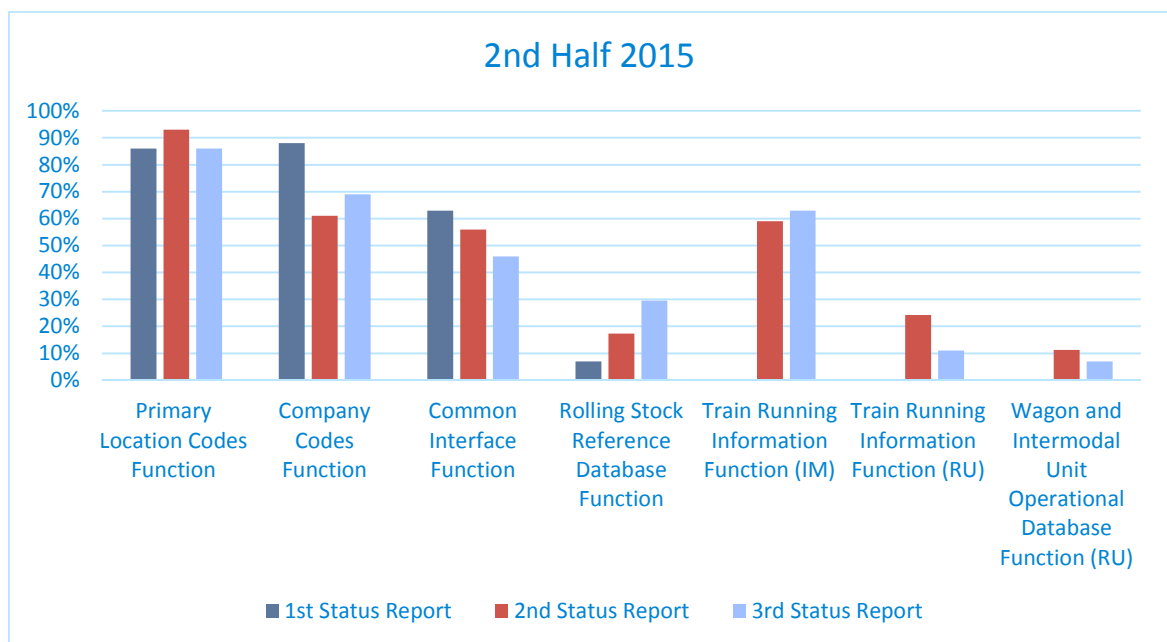


Figure 27: Evolution of the Implementation along the Reporting.

## 6. Conclusions

The third report to evaluate the degree of implementation of Commission Regulation (EU) No 1305/2014, TAF TSI [2], shows a stagnation compared to the reference baseline, the Master Plan (1) to implement TAF TSI [2] delivered by the sector in January 2013.

The TAF TSI Master Plan (1) issued by the rail sector in January 2013 foresees the following level of realisation by **end-2015** for the reported functions:

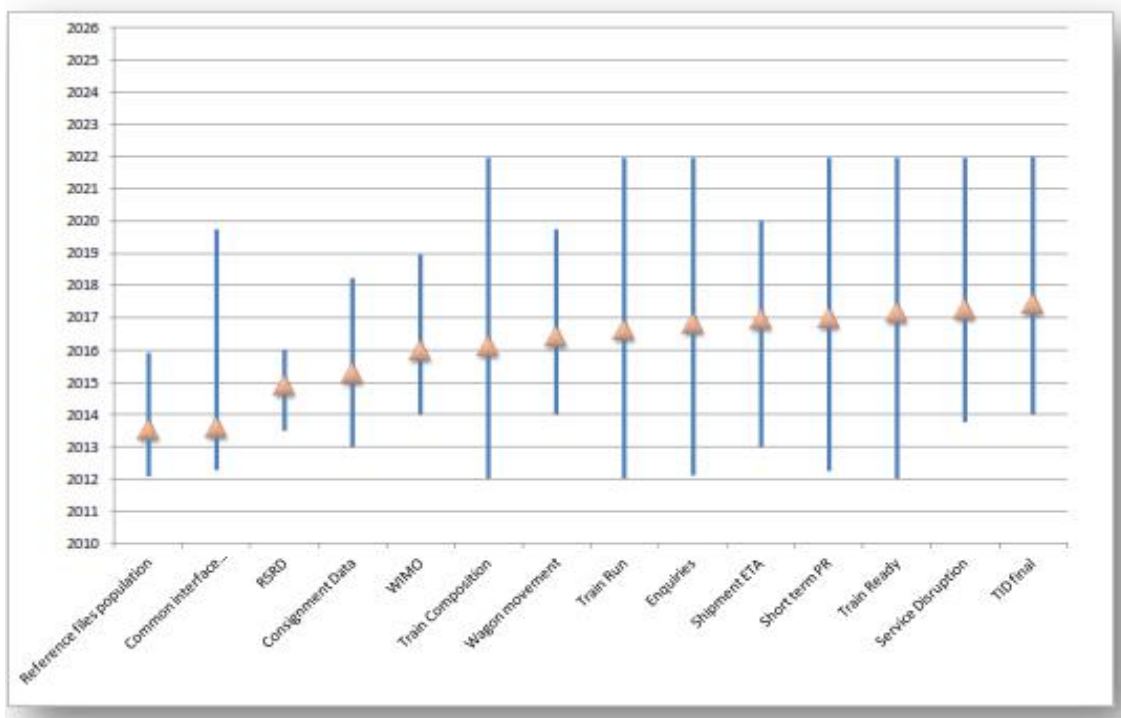


Figure 28: Minimum and Maximum Implementation Dates in the TAF TSI Master Plan delivered in January 2013.

- ) Reference files population (Primary Location Codes Function and Company Codes Function):
  - 98% degree of implementation at European level for Infrastructure Managers and
  - 95% degree of implementation at European level for Infrastructure Managers.
- ) Common Interface Function:
  - 98% degree of implementation at European level for Infrastructure Managers and
  - 95% degree of implementation at European level for Railway Undertakings.
- ) Rolling Stock Reference Database Function: 80% or more of the respondents (Wagon keepers and Railway Undertakings) indicated a final implementation in 2015.
- ) Train Running Information Function:
  - 55% degree of implementation in 2014 and 62% degree of implementation in 2015 at European level for Infrastructure Managers and

- 30% degree of implementation in 2014 and 33% degree of implementation in 2015 at European level for Railway Undertakings.
- ⌋ Wagon and Intermodal Unit Operational Database Function: 28% by 2014 for the Railway Undertakings and 39% by 2015.

The data reported in **January 2016** shows different degrees of implementation per function:

- ⌋ **Company Codes function: 69% degree of implementation at European level.**
- ⌋ **Primary Location Codes function: 86% degree of implementation at European level.**
- ⌋ **Common Interface function: 46% degree of implementation at European level.**
- ⌋ **Rolling Stock Reference Database function: 29,6% degree of implementation at European level.**
- ⌋ **Train Running Information Function:**
  - **For Infrastructure Managers: 63% degree of implementation at European level.**
  - **For Railway Undertakings: 11% degree of implementation at European level.**
- ⌋ **Wagon and Intermodal Unit Operational Database function: 7% degree of implementation at European level.**

The report allows us concluding that the evolution of the **implementation of “Primary location Codes” and “Train Running Information” functions is in line with level required in the TAF TSI Master Plan (1)**. Indeed, for this second function we may state that the implementation is ahead of schedule. In particular, it is quite relevant the data supplied by the Infrastructure Managers, because it clearly illustrates about their commitment to populate the primary location central repository and to test the exchange of data for tracking the movement of the trains, “Train Running Information”. The Infrastructure Managers are in fact the drivers for the deployment of the “Primary Location Codes” and “Train Running Information” functions. This positive evolution will bring benefits in the further development of other TAF TSI [2] functions as the “Service Disruption Information” and “Shipment ETI/ETA” functions. Thus, we can state that the basic elements to deploy the system are technically in place.

Regarding the **“Company Codes” function**, we can observe a **stagnation in the level of fulfilment** at the same time more companies are joining the implementation process for TAF TSI. Thereby, we may conclude that a negligible number of companies has applied to get the company codes in addition to the results of the 2<sup>nd</sup> Status Report (4). In particular, it cannot be neglected the fact that the Wagon Keepers don't perceive the benefits of having Company Codes and most of them don't envisage to have it.

The level of **implementation of the “Common Interface” function is declining** and this decline can be partially justified due to the enlargement of the survey population. In fact, some companies declared that they will be able to generate TAF TSI [2] compliant messages from their legacy systems without further conversion. For this reason, even if the level of deployment for this function is lower than that one for the “Reference Files” functions (Primary Location and Company codes), this is not perceived as problem for the overall deployment of the TAF TSI system. This outcome can be as well justified either on the lack of knowledge about the technical requirements to deploy the TAF TSI [2] messages set, or because most of the companies are starting now to install a local instance of this tool. Nevertheless, the implementation of this function should be closer oversee by the Agency TAF TSI Implementation Cooperation Group to propose measures when needed.

The **results for the “Rolling Stock Reference Database” function shows that the sector needs more resources to develop this functionality**, in particular the Railway Undertakings, who in most of cases may act as Wagon Keepers as well. Indeed, although similar functionality may be in place for most of the Railway Undertakings operating in Europe, only few Railway Undertakings have delivered data for this particular function to the JSG to show the level of deployment. Moreover, whether we may confront these results with the number of wagons stored in the GCU wagon database (with more than 600,000 wagons currently declared across 20 countries in Europe), we can conclude that for the time being almost 30% of the European wagon fleet is fulfilling the legal requirements requested for “Rolling Stock Reference Database” function through the implementation of RSRD<sup>2</sup> database. The delay in the accomplishment of this functionality has been treated in the context of the Agency TAF TSI Implementation Cooperation Group and moreover some National Contact Points, Spain and Switzerland, requested the Agency to bring the issues regarding the metrics to define the achievement of the implementation of this function to the TAF TSI Steering Committee. In addition to the **set of criteria for the wagons excluded of the provisions for the “Rolling Stock Reference Database”**, defined in the 2<sup>nd</sup> Agency TAF TSI Implementation Cooperation Group meeting held on 29<sup>th</sup> and 30<sup>th</sup> September 2015 (5), the wagons excluded from the **“Rolling Stock Reference Database”** are:

- ) those wagons owned by IMs,
- ) wagons owned by small companies subcontracted to perform works on the tracks,
- ) wagons owned by RUs use this rolling stock only for their own purpose and not providing them to third parties,
- ) and wagons owned by wagon keepers using this rolling stock only for their own purpose and not providing them to third parties.

In the Steering Committee meeting held in April 2016, the European Commission DG MOVE (PG) announced a request from Spain (ES) to endorse a position after the Cooperation Group meeting that wagon keepers would be exempted from the TAF TSI implementation. In regards to this request, the European Commission mandated the Agency and JSG to prepare a document to be endorsed in the next Steering Committee meeting about the definition of compliance for this function RSRD.

1. The Agency should cross-check the entities reporting about the RSRD functionality with the VKM register. Sometimes non-keepers, as Infrastructure Managers, might also report about the implementation of this function.
2. The Agency should check sample-check whether the provided implementation status of 100% (fully available) is really reached.

Regarding the **level of accomplishment declared for Wagon and Intermodal Unit Operational Database function in the 2<sup>nd</sup> and 3<sup>rd</sup> Status Reports (3) (4)**, we can draw the conclusion that **a delay can be expected** compared to the commitment in the TAF TSI Master Plan (1). The Agency TAF TSI Implementation Cooperation Group treated this risk and agreed submitting a request to the TAF TSI Steering Committee for discussion and adoption of mitigation measures. In regards to the request, the European Commission mandated the Agency and JSG to launch a discussion in order to assess together with the European rail sector different ways of compliance for this function WIMO and to revert the outcomes of this reflection to both Agency TAF TSI Implementation Cooperation Group and TAF TSI Steering Committee.

Furthermore, the results obtained allow concluding that more support from the EU institutions can be provided to help the companies to implement these functions through different actions as better dissemination and increase of funding.

## 7. Regional Workshops

To provide an appropriate response to the first action requested to EU institutions, the Agency TAF TSI Implementation Cooperation Group adopted in the 2<sup>nd</sup> meeting held on 29<sup>th</sup> and 30<sup>th</sup> September 2015 (5) the decision to launch a campaign of Regional Workshops across European Member States. The first one was organised in Madrid –Spain in close cooperation with the Portuguese and Spanish NCPs in Madrid in June 2015, where 47 companies attended the event. Afterwards, three additional Regional Workshops have been organised:

- J 2<sup>nd</sup> TAF TSI Regional workshop organised in Paris – France on 22<sup>nd</sup> and 23<sup>rd</sup> February 2016, in close cooperation with the NCPs of France, Belgium and Luxembourg. Round 41 companies attended the event and quite positive feedback was provided by the companies in regards the usefulness of the deployment of TAF TSI (simplified access to information, viable processes, easy transition, compatibility with other legal texts (e.g. OPE TSI) and with the safety requirements, convergence between the main actors – RUs, IMs and WKs, better information, facilitated decision making and higher performance, simplified exchanges, increased efficiency, single reference for various processes, standardization of processes, effectiveness, the right balance between regulation and self-regulation, avoiding to model particular cases in the legal texts, a cost-effective implementation, complete and easy monitoring of the rolling stock , competitiveness, safety of rail freight, optimized capacity management , etc.). Moreover, some RUs highlighted the need of further coordination at national level between the IMs and RUs in order to ensure a successful migration. The Agency as well learnt that Investments occur mainly because the existing IT systems are obsolete, and then for the mainly the Infrastructure Managers is a good occasion to ensure, among others, the TAF TSI compliance.

The Wagon Keepers representatives manifested that for them, TAF TSI will bring benefits for loading companies and the ECMs, in particular because of the Wagon movement function and the WIMO database. Moreover, the Railway Undertakings will be able to provide the information requested by their clients in a standardized way. For the wagon keepers, an important added value is to have the information on the mileage. If the exchange of information is strictly bilateral (from one RU to one WK), the need for standardization is not fully justified. As long as we start speaking about multilateral exchanges of information (one RU to more WKs or more RUs to one WK), standardization becomes imperative.

- J 3<sup>rd</sup> TAF TSI Regional workshop organised in Bonn – Germany on 2<sup>nd</sup> and 3<sup>rd</sup> March 2016, in close cooperation with the NCPs of Germany, Austria, The Netherlands, Switzerland, and Belgium. Approximately 140 companies attended the event and quite positive feedback was provided by the companies in regards the usefulness of the deployment of TAF TSI:
  - o The companies expect from TAF an increase of economic efficiency in the freight traffic.
  - o TAF could be used to control kilometres of wagons – this aspect would address safety
  - o The audience is committed to the deployment plan of TAF

Moreover, some companies provide constructive remarks regarding the TAF TSI deployment:

- More Management Attention is necessary for the implementation of TAF.
- TAF implementation implies some costs but it should be considered as a chance to introduce a common communication standard between the actors in the freight rail transport.
- It is rather clear that more actors join the community, more benefits will be drawn by every partner.
- There are already tools available for small users.
- Necessary synchronization of IT migration between RU and IM during the employment of TAF TSI. Some companies consider that this co-ordination task may be played by the NCPs. However, there is no legal provision attributing this task to the National Contact Points.
- In future, DB Netz would like to use TAF for all path requests (including yearly timetable). The main advantage of TAF is standardization.
- VDV asks for a common approach concerning the implementation of TAF within Germany. (There is a lot of other IMs in DE besides DB Netz who have not yet started the implementation of TAF) and the migration should be done in a coordinated way.
- The implementation of the Unique Train Identifier is the last mile to have a complete TAF TSI Implementation.



- J 4<sup>th</sup> TAF TSI Regional workshop organised in Rome – Italy on 7<sup>th</sup> and 8<sup>th</sup> June 2016, in close cooperation with the NCPs of Italy, Slovenia and Croatia. Around 75 companies attended the event and quite positive feedback was provided by the companies in regards the usefulness of the deployment of TAF TSI:
- Current restricted scope to short term path requests should be extended to all phases of path allocation (e.g. incl. yearly timetable construction).
  - The representatives of small and medium sized companies in Italy requested that it should be further clarified who is bound to implement TAF TSI.
  - The representatives of small and medium sized companies in stated that they envisage to use the solution provided by the incumbent Infrastructure Manager to implement TAF TSI for Train Running Information.
  - The largest Railway Undertaking in Italy outlined that they expect benefits from the implementation of TAF TSI functionality such as simplification of processes, fast availability of data, improved data quality, increased capacity to cooperate among actors, possibility to develop joint analyses and reports between actors.
  - In addition, the main Infrastructure Manager in Slovenia and the biggest Railway Undertaking quoted as well that they have launched an implementation project for TAF TSI based on a good cooperation between RU and IM and the use of existing tools at European level allowing the deployment of Path Request and Train Running Information, RNE tools like PCS and TIS combined with the Common Interface meet these requirements.
  - Finally, the main Freight Railway Undertaking in Croatia reported that financial problems caused delays in the implementation, because they don't expect to face technical issues. Furthermore, they requested more support from European entities to back the effort to be done at national level.

Therefore, we can conclude that the Regional Workshops are considered as a quite fruitful dissemination action. This conclusion is underpinned by the comments provided by the National Contact Points:

- J The Information transmitted in the workshops is very useful because it is explained what TAF TSI obligations are and how to implement them.
- J It allows the creation of a national network for TAF TSI.
- J It facilitates the integration/engagement of small-medium size companies in EU forums. In particular, it has been revealed as very useful for small railway undertakings and wagon keepers.
- J It clarifies towards the actors the different roles, responsibilities and obligations.
- J It makes aware small and medium sized companies of tools developed at European level to implement TAF TS and moreover the companies can get pricing and access conditions to become users of these tools.
- J It is considered as efficient forum for exchanging information with bodies leading the TAF TSI deployment at EU level and a great opportunity to solve doubts. This helps companies participating in the workshop to have the opportunity to come into contact with each other and promote joint integration activities.
- J This dissemination activity increases the overall sector activity regarding TAF TSI: report information to the JSG and the TAF TSI implementation.

- ) During the workshop, presentations were held in several different styles and with different focuses. All presentations dealt with topics of TSI-TAF and its implementation. They received, according to the audience, the following positive feedback:
- Basic information about the presented topic understandable.
  - Structure of presentations (partially) clear.

However, the National Contact Points collected as well some constructive inputs to be taken on-board by the Agency for future Regional Workshops:

- ) In order to further improve the quality of the presentations and deliver content which reaches the audience:
- The exposition of the benefits implementing TAF TSI were not well transmitted towards the audience, They struggle to understand the reason why to listen and why to implement / use the points explained in the presentation
  - Focus on the implementers rarely present
  - Content of presentations need to be streamlined, and therefore unnecessary content removed

The points mentioned above fit to all the presentations but especially to the ones held by the Agency. In addition to them, it is crucial to ensure that the other presenters also improve their speeches and presentations following these recommendations.

### 7.1. Impact of the regional Workshops in the Reporting Exercise

Comparing the dates when the Regional workshops were held with the number of companies participating in every reporting session, we may draw the conclusion that the number of companies have increased and a priori one of the factor contributing to this increase is the activity of dissemination performed by the Agency through what is known as Regional workshops for TAF TSI.

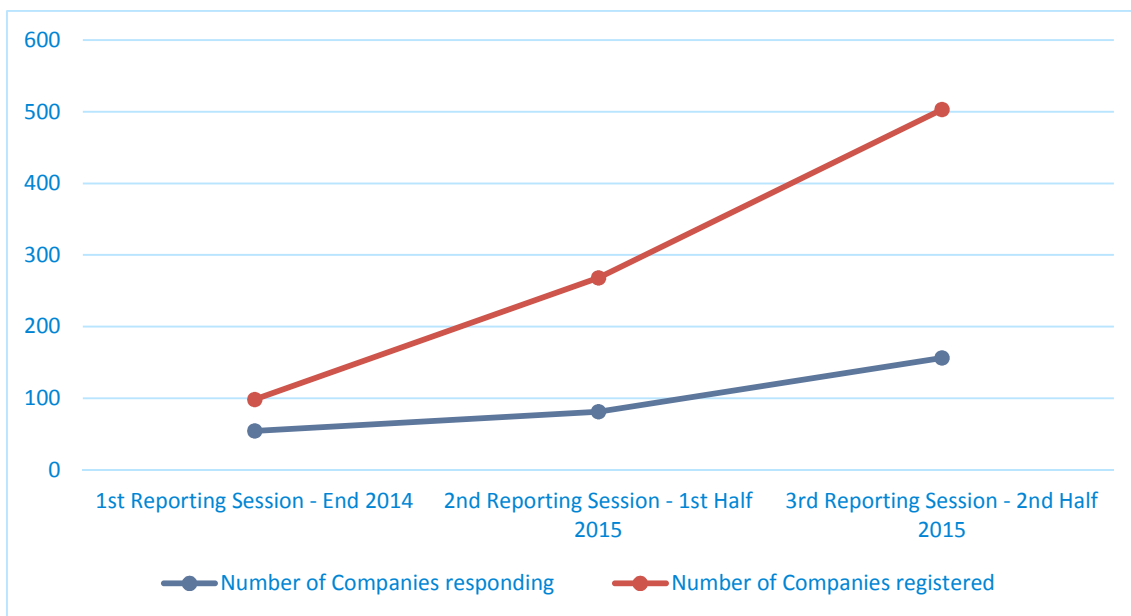


Figure 29: Impact of the Regional workshops on the evolution of companies participating in the reporting exercise

Indeed, the graphic above shows that the number of companies engaged in the reporting has doubled after having the 1<sup>st</sup> Regional workshop. It is not the unique factor contributing to this positive predisposition of the companies, but it is clearly one of the elements easing the engagement of companies, in particular the small and medium size companies not being members of the Stakeholders representing the rail sector at European level as we can observe on the figure below:



Figure 30: Membership of companies attending the Regional Workshops

Therefore, we expect that, due to the high number of attendees to the workshops in Paris, Bonn and Rome, in the coming reports the number of companies reporting about the level of implementation of TAF TSI will steadily grow. Nevertheless, the only input which helps the Agency to make this assumption for the time being is the effect of the Regional Workshop held in Madrid for Portugal and Spain.

## 8. Proposals to support the Reporting Process

This report contains the following proposals endorsed by the Agency TAF TSI Implementation Cooperation Group in the 3<sup>rd</sup> meeting held on 30<sup>th</sup> and 31<sup>st</sup> March 2016:

- ) To have an additional Work Shop dedicated to explain the TAF TSI benefits to CEOs and CIOs of the reporting companies in order to secure budget for TAF functions' implementation. This additional WS should in particular address those companies / countries where business related or process related issues have been reported.
- ) The European Commission to inform regularly in the context of the TAF TSI Implementation Cooperation Group NCPs and TAF TSI Regional workshops the stakeholders representatives about the EC funding supporting the deployment of the Telematics, and in particular for TAF TSI. Moreover, some stakeholders granted by with EU funding, like RNE, are kindly invited to share with NCPs and stakeholders representatives about their own experience as awarded entity with INEA-CEF funds.
- ) The Agency and JSG to share with NCPs the survey template 2 weeks before the reporting campaign starts. This may allow NCPs translating the content of the survey into their national languages

- J The Agency will send JSG Company List to NCPs in advance granting them 15 days for reaction before starting the reporting campaign. The aim is to keep up to date the contact details of the reporting responsible in every company.
- J The Agency committed to deliver the implementation issues reported by the companies in the regional Workshops or gathered via the JSG tool (if possible on GIS maps + raw data) to INEA. This may help to better target the CEF call for 2016 (for Telematics). The Agency will advise INEA to consider those companies / countries reporting budgetary constraints for the implementation of TAF TSI.
- J The Agency must elaborate together with the JSG a proposal to be submitted to TAF Committee to better define compliance for WIMO and RSRD functions.
- J The Agency should continue organising dissemination Regional Workshops to ensure that the number of reporting RUs/IMs/WKs continues increasing.

## 9. Functions to be reported in the next report

It has been agreed in the 3<sup>rd</sup> TAF TSI Implementation Cooperation Group meeting held on 30<sup>th</sup> and 31<sup>st</sup> March 2016 that for the next meeting, to be organised in October 2016, the companies shall deliver data concerning the implementation of the following TAF TSI [2] functions:

- ) Company Codes function
- ) Primary Location Codes function
- ) Common Interface function
- ) Rolling Stock Reference Database function
- ) Train Running Information Function
- ) Wagon and Intermodal Unit Operational Database function

The request to report on the evolution of the implementation for the aforementioned functions is based on the target implementation dates quoted in the TAF TSI Master Plan (1).

## Annex 1: Maps and Implementation Data

Common Functions, RU's functions and RU-IM Communication Functions Maps + Raw data on Agency website: <http://www.era.europa.eu/tools/TAFTSI/Pages/Home.aspx>