EUROPEAN UNION AGENCY FOR RAILWAYS

Making the railway system
work better for society.

ACCOMPANYING REPORT TO THE OPINION OF THE EUROPEAN UNION AGENCY FOR RAILWAYS

for

THE EUROPEAN COMMISSION

regarding

Change of company code to 4-letter-alphanumeric format

Table of Contents

1. Executive summary

For the identification of the companies in the rail sector, a coding scheme, based on 4 digits is in place since around 2000 in the rail sector. Those codes are widely known as RICS codes allocated an maintained by UIC[1]. The codes are as well in use in non EU countries (e.g. countries belonging to OSJD and OTIF) and maintained in cooperation with UIC. Those codes have their legal basis within EU in the regulations for the telematics applications for freight and for passengers (TAF/TAP TSI). The allocation and maintenance of those codes within EU is currently managed by UIC.

Due to the introduction of the organisation register in the Commission Implementing Decision (EU) 2018/1614, a new register for organisations has to be set-up by ERA until 2021. To allow the accommodation of more actors, as for the existing company codes, the format 4 alphanumeric characters (uppercase letters and numbers) is specified in the legislation. These codes are called organisation codes and will be allocated by ERA.

For the sake of interoperability both coding schemes have to be integrated: The specification of 4 alphanumeric letters for the organisation codes allows the integration of the existing numeric codes for telematics applications in this new coding range. This avoids the usage of different company codes for the same company, thus facilitating the interoperable data exchange of those data sets.

For the integration of the existing company codes and the organisation codes, the company codes shall be migrated from 4 digits to 4 alphanumeric characters. Other non-negligible argument for migration is mitigation to avoid limited capacity of available codes (limited to 9999 entries in the current 4N format) to become constraint for the interoperable transport data interchange. ERA has submitted a change request for this change to the TAF/TAP change control working party. The change request covers the changes of the technical documents as well the proposal for a migration plan to an alphanumeric company code.

The technical opinion describes the needed changes in the regulations (EU) 1305/2014 and (EU) 454/2011 to support the migration from the numerical to the alphanumeric characters.

2. Introduction

Based on the Commission Implementing Decision (EU) 2018/1614 of 25 October 2018 laying down specifications for the vehicle registers referred to in Article 47 of Directive (EU) 2016/797 of the European Parliament and of the Council and amending and repealing Commission Decision 2007/756/EC ERA will be responsible from 16. June 2021 for the management of the European vehicle register. One part of this tasks will be the allocation of the organisation codes. The format of these organisation codes will be 4 alphanumeric characters (4AN).

Linked with this change of the allocation process of the organisation codes is the technical change of the current format of the company code – used in TAP/TAF TSI – to a 4-character alphanumeric code instead of the current 4-digit code. If a company has already an 4N company code, this code shall be used as organisation code to avoid the usage and communication of a different code and to ensure backward compatibility.

The document focuses on the following topics: changes of the technical documents as well as migration from the existing 4-digit numeric codes to the 4-character alphanumeric code

[1] See https://uic.org/support-activities/it/rics

3. Context

3.1. Subject

The subject of this opinion is the change of the company code format from 4 numeric to 4 alphanumeric characters for the regulations (EU) 454/2011 (TAP TSI) and (EU) 1305/2014 (TAF TSI).

3.2. Technical scope

The technical scope of this opinion is the unique identification of companies in the telematics TSIs. The usage of those company codes is defined in chapter 4.2.11.1. Reference Files of the regulation (EU) 1305/2014 and chapter 4.2.19.1. Reference files of the regulation (EU) 454/2011.

3.3. Technical background

The technical background is mostly related to implementation impacts of this change and it has been treated by the sector analysis and impact assessment from ERA, see Chapter 4.3.

3.4. Technical requirements

The technical requirements for the change are laid down in the changed technical documents for the TAF and TAP TSI, annexed to this opinion.

3.5. Applicable legal background

According to the provisions of Article 10 of Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004 (Agency Regulation), the European Commission has the possibility to request the opinion of the Agency in particular concerning safety-related and interoperability-related aspects.

According to the regulations (EU) No 1305/2014 (TAF TSI) and (EU) 454/2011 (TAP TSI) the agency has to implement change control management process for the technical documents, annexed to both TSI's.

According to the article 7.2.2 (9) of the regulation (EU) 2019/778 and article 7.5.2 (9) of the regulation (EU) 2019/775 concerning the change control management of the TAF and TAP TSI, the Agency shall send a request to the European commission to request a revision of the TAF TSI and/or request the technical opinion from the Agency, if a change request would require a change of the legal text of the TAF TSI.

The change request CR 449 concerning the Change of company code to 4-letter-alphanumeric format requires to establish a migration plan including a fixed deadline of the implementation of this change. The agency proposes to include the deadline in the chapter 7.1 of the regulation (EU) 2019/778 and regulation (EU) 2019/775. Such approach is supported by the TAF/TAP TSI Change Control Management Board approving the change request CR 449

4. Analysis

4.1. Legal provisions

The legal provisions are defined in the decision (EU) 2018/1614 as follows:

"3.4.2. Organisation codes

3.4.2.1. Definition of organisation code

An organisation code is a unique identifier, consisting of four alphanumeric characters that shall be assigned by the Agency to one organisation.

3.4.2.2. Format of organisation codes

For each of the four alphanumeric characters, any of the 26 letters of ISO 8859-1 alphabet or any number from 0 to 9 may be used. Letters are written in capitals.

3.4.2.3. Allocation of organisation codes

Any organisation accessing EVR or identified therein shall be assigned an organisation code.

The Agency shall publish and keep up-to-date the procedure for the creation and allocation of organisation codes.

A range to be allocated only to companies under scope of TAP and TAF TSI shall be specified in the EVR Guidelines.

3.4.2.4. Publication of the list of organisation codes

The Agency shall make the list of organisation codes publicly available on its website.

Those organisation codes shall be shared between the organisation register and the TSIs for telematics applications.

4.2. Current situation

The TAF and TAP TSI are using the 4-digit numerical company code to identify the involved actors in the railway transport, such as infrastructure managers, railway undertakings and service providers.

The code format is defined in the following documents:

- TAP TSI technical document B.8
- TAF TSI technical document TAF TSI — ANNEX D.2: APPENDIX F — TAF TSI DATA AND MESSAGE MODEL

The allocation and the management of those codes is defined in the following documents:

- TAP TSI Application guide B.56 RU/IM-communication
- TAP TSI Technical Document B.61 (Governance)
- TAF TSI - ANNEX D.2 : APPENDIX C - REFERENCE FILES

The following technical documents use the company code:

- TAP TSI B.1
- TAP TSI B.2
- TAP TSI B.3
- TAP TSI B.4
- TAP TSI B.5
- TAP TSI B.6
- TAP TSI B.7
- TAP TSI B.9
- TAP TSI B.10
- ANNEX A.5: FIGURES AND SEQUENCE DIAGRAMS OF THE TAF TSI MESSAGES
- ANNEX D.2: APPENDIX B - WAGON AND INTERMODAL UNIT - OPERATING DATABASE (WIMO)
- ANNEX D.2: APPENDIX C - REFERENCE FILES
- ANNEX D.2: APPENDIX E - COMMON INTERFACE

Most of the technical documents above have to be changed to incorporate the requirements for the alphanumerical company code. Only few technical documents, such as B.4 and B.5 are already supporting alphanumeric company codes. The TAF and TAP TSI change control management groups discussed these changes of the technical documents above and accepted them.

4.3. Approach for the migration of the company codes

The main task for the change of the format of the company codes from 4-digit company codes into 4-character alphanumeric codes is the migration of the legacy systems using the numeric company codes. Those systems have to be migrated from the existing coding scheme to the new one.

Impact analysis has been performed to find out whether such a migration is possible and the impact it might have on the IT-systems of the railway actors.

The impact on the legacy systems has been analysed carefully by the rail sector in order to avoid difficulties during the migration process.

Following steps were or are being executed to migrate from the 4-digit into the 4-character company coding

#	Step	Resp.	Tasks	Status
1	Analysis of the technical documents for TAF/TAP	ERA	- Analysis of the technical documents of TAF/TAP TSI - Proposal of the detailed changes in the TAF/TAP TSI technical documents - Proposed migration path	Completed
2	Analysis by the sector	Sector	- Analysis of the changed technical documents - Delivering figures for the impact assessment - Migration path proposal	Completed, see Annex 5 and Annex 6
3	Impact assessment by ERA	ERA	- Impact assessment per TAF/TAP TSI technical document with the available options for the migration: 1. Full migration of the technical document to 4-character company code 2. Migration with constraints (e.g. timing for the migration) 3. No migration to the 4-character company code and constraints for the use of company codes for the affected TAP TSI functions - Decision about the preferred option and the migration path	Completed, see Annex 6
4	Acceptance of the CR in TAP TSI CCM	ERA	1. Changed technical documents 2. Migration plan	Completed
5	Acceptance of the technical documents and	ERA	1. Changed technical documents 2. Migration plan	Completed

	the migration plan in change control board			
6	Request the European Commission to request from ERA a technical opinion concerning this change request	ERA/EC	-	Completed
7	Submit the technical opinion to EC	ERA	-	Ongoing
8	Monitoring		- Monitoring of the implementation of the changes concerning the company code	To be defined in the TAF/TAP ICG

TAP TSI CCM WP on 13/05/2020 has agreed that "legal obligation for CC migration would have to be strengthened (…) through relevant update of TSI and Master Plan"

TAF TSI CCB decision on 27/05/2020 supported WP proposal as a recommended step to support the Change Request implementation.

TAF TSI CCB decision on 27/05/2020 supported the Agency proposal as hereby laid down - see Chapter 5.2 Opinion

4.3.1. Handling of existing company codes

For companies having already a 4-digit company code, the existing codes remains unchanged.

4.3.2. Handling of company codes for actors outside EEA

For companies located outside of the European union the code allocation rules are different. Codes are allocated by UIC in cooperation with OSJD. The code format of company codes outside of EU is 4-digits and there is not known if a migration to 4-alphanumeric company codes is envisaged. It cannot be guaranteed, that 4-letter-alphanumeric company codes can be processed by those companies, not located in EEA.

Therefore all actors exchanging data with companies outside of the EEA shall be allowed to receive a 4-digit company code. 4-digit numerical company codes are compatible with the 4-letter alphanumeric coding range and can be accommodated in the modified code structure for TAF and TAP TSI.

5. Conclusions

5.1. Main conclusions

The conclusion of the opinion is that the migration to the 4 alphanumeric characters company code is possible for the telematics applications for freight and for passengers. This migration has to be supported by a migration plan, making the migration legally binding from 1st January 2026.

1. Migration from 4 digit company code to 4 letters alphanumeric company code is possible until 2026 and widely supported by the sector
2. Migration plan supported by the sector
3. impact analysis has shown a very limited costs impact for the rail sector

A solution for a shared code allocation procedure between UIC and the Agency has to be found.

5.2. Opinion

In order to support the implementation measures related to the Change of company code to 4-letter-alphanumeric format, in line with the migration strategy, as proposed by Change Request, the amendments of TAP and TAF TSIs are proposed in a following way Temporary Specific Case is created to mandate the use of legacy format numerical codes until the agreed migration date 31 December 2025. As soon as legislation is published, the agreed technical part of CR will be published in the TAF/TAP baselines. As such, interoperability will be kept until agreed migration date of 31 December 2025.

At the same time in order to protect the data exchange with non EEA actors the permanent specific case is proposed that imposes allocation of 4 digit company codes to the respectable actors.

The TSIs amendment proposal is as follows:

- *Change of the Commission Regulation (EU) No 454/2011 (TAP TSI)*

  7.3. Specific cases

  7.3.1. Introduction

  The following special provisions are permitted in the specific cases below:

  (a) "P" cases: permanent cases;

  (b) "T" cases: temporary cases, where it is planned that the target system is reached in the future.

  (c)'T1' cases: 'temporary' cases, where the target system shall be reached by 31 December 2025.

  7.3.2. List of specific cases

  7.3.2.1 Specific case Company code ("P")

  For actors exchanging data with actors located outside EEA, company codes with 4 digits shall be allocated.

  7.3.2.2 Specific case Company code ('T1')

  The usage of numerical codes according to the reference file of the coding for all infrastructure managers, railway undertakings, station managers, service provider companies (chapter 4.19.1), so called company codes, is mandatory.

- *Change of the Commission Regulation (EU) No 1305/2014 (TAF TSI)*

  7.3. Specific cases

  7.3.1. Introduction

The following special provisions are permitted in the specific cases below:

(a) "P" cases: permanent cases;

(b) "T" cases: temporary cases, where it is planned that the target system is reached in the future.

(c)'T1' cases: 'temporary' cases, where the target system shall be reached by 31 December 2025.

7.3.2. List of specific cases

7.3.2.1 Specific case Company code ("P")

For actors exchanging data with actors located outside EEA, company codes with 4 digits shall be allocated.

7.3.2.2 Specific case Company code ('T1')

The *usage of numerical codes according to the reference file of the coding for all IM, RU, Service provider companies (chapter 4.2.11.1), so called company codes, is mandatory.*

Valenciennes, 07/09/2020

Josef DOPPELBAUER
Executive Director

Annex 1. Abbreviations

Table 1: Table of abbreviations

Abbreviation	*Definition*
CCB	Change Control Board
CR	Change Request
EEA	European Economic Area
EVR	European Vehicle Register
ICG	Implementation Cooperation Group
WP	Working Party

Annex 2. Reference documents

Table 2: Table of reference documents

Ref N°	*Title*	*Reference*	*Version*
1	The Agency's opinion regarding change of company code to 4-letteralphanumeric format	MOVE.DDG2.C.4/CDG	2020/06/26

Annex 3. Reference legislation

Table 3: Table of reference legislation

Ref N°	*Title*	*Reference*	*Version*
1	Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004	OJ L 138, 26.5.2016, p. 1.	N.A.
2	Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety (Recast)	OJ L 138, 26.5.2016, p.102	N.A.
3	Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system (Recast)	OJ L 138, 26.5.2016, p. 44.	N.A.

Annex 4. CR:TELEM00000449 (printout)

Identification Number	TAF_and_TAP
State	Packaged
Headline	Change of company code to 4-letter-alphanumeric
Reference Baseline Release	TSI TAF annex A (modified by decision 2006/62/EC)
Documents and/or References	- TAF TSI - TAP TSI
Error/Enhancement	Enhancement
Problem/Need description	The company code used in TAF TSI and TAP TSI is currently defined as "... the Code is a numerical, four-position, unstructured code". This limits the available codes to 9999 different undertakings. Furthermore the code shall be used in the future by the Agency for other activities as well, such as the Vehicle register or the register of infrastructure.
Supporting document(s) for problem/need description	
Solution Proposal by submitter	
Supporting document(s) for solution proposal	
Agreed Solution	TAF/TAP TSI CCM meeting 13/05/2020: The proposed definition of ERA: <xs:simpleType name="CompanyCode"> <xs:annotation> <xs:documentation>Identifies the RU, IM or other company involved in the Rail Transport Chain</xs:documentation> </xs:annotation> <xs:restriction base="String4-4"> <xs:pattern value="[0-9A-Z]{4}"/> </xs:restriction> </xs:simpleType> WP agreed on the changed technical documents as attached in the supporting documents. WP agreed on the solution proposal for the migration : 1. “The technical documents for TAP/TAF TSI will be changed according to the proposals of the CCM and published in the next maintenance release 2. The numerical company codes for TAF/TAP will be allocated until 2025 3. The implementation date for the company codes will be specified in the master plan for TAP and in chapter 7 for TAF TSI 4. A monitoring of the implementation progress will be established

	in the frame of the implementation cooperation groups (ICG) for TAF and TAP" WP also agreed to submit the CR to CCB, with the following remarks: 1. Publication Option 1 through the maintenance release 2. In such case legal obligation for CC migration would have to be strengthened however through relevant
Supporting document(s) for agreed solution	
Justification/Discussion for Solution	
Supporting document(s) for Justification/Discussion for Solution	
Preliminary Assessment of Benefits	
Supporting document(s) for preliminary Assessment Benefits	
Economic Evaluation	
Supporting document(s) for Economic Evaluation	
Submitting Recognised Organisation	ERA
Contact person name	Stefan Jugelt
Contact Person e-mail adress	stefan.jugelt@era.europa.eu
Endorsed by Recognised Organisation(s)	
Project Information	Implementation of company register at ERA.
Submitter Reference Number	
List of assigned WG(s)	
Severity	Interoperability related and non safety related
Target Baseline	To be decided
Reason for Error/Enhancement reclassification	

Annex 5. Draft changed technical documents*

https://extranet.era.europa.eu/Interop/CCM_TAP/Deliverables/Opinion%20CR%20449%20(Company%20code)/TAP%20TSI%20CR449%20(Company%20code).zip **(TAP TSI)**

https://extranet.era.europa.eu/Interop/CCM_TAP/Deliverables/Opinion%20CR%20449%20(Company%20code)/TAF-TSI-CR449%20(Change%20of%20the%20company%20code).zip **(TAF TSI including the XSD schema)**

*accessible to registered users

Annex 6. Light Impact Assessment

1. Context and problem definition

<table>
<tr><td>3.1. Problem and problem drivers</td><td>According to the TAP/TAF TSI the railway sector has to implement the following reference file “reference file of the coding for all infrastructure managers, railway undertakings, station managers, service provider companies,”

In addition the railway sector has to implement the following reference file “(b) Reference File of the Coding for all IMs, RUs, Service provider companies;”

Those company codes are already in use by the railway undertakings. The so called RICS-codes are currently managed by UIC in cooperation with OSJD and hosted in a common database (CRD) at RNE. The codes are publicly available at UIC and ERA website.

The codes are structured as 4-digit numerical codes.

Based on the COMMISSION IMPLEMENTING DECISION (EU) 2018/1614 the existing company codes shall be used as well for the identification of the organisations for vehicle registration purposes (see attached chapter 3.4.2 of the regulation).

The existing code range of company codes of max. 9999 is not sufficient to cover the complete EU wide rail sector.</td></tr>
<tr><td>3.2. Main assumptions</td><td>A coding of the organisation codes based on 4-letter alphanumeric characters allows the allocation of more than 1.6 million codes in the future. This amount should be sufficient to cover future requirements for the railway actors.

Alphanumeric codes are already in use within the register of infrastructure.

The problem concerns both – telematics applications of passengers and for freight.

The IT systems of the EU RUs/IMs/associations involved in TAF/TAP will be able to manage 4AN CC from beginning 2026.</td></tr>
<tr><td>3.3. Stakeholders affected</td><td>
<table>
<tr><th>Category of stakeholder</th><th>Importance of the problem</th></tr>
<tr><td>Railway Undertakings</td><td>5</td></tr>
<tr><td>Infrastructure Managers</td><td>5</td></tr>
<tr><td>Service Providers</td><td>5</td></tr>
<tr><td>Wagon Keepers</td><td>5</td></tr>
<tr><td>Ticket Vendors</td><td>5</td></tr>
<tr><td>Station Managers</td><td>5</td></tr>
</table>
</td></tr>
</table>

		All stakeholders are affected in the same way.
3.4.	**Evidence and magnitude of the problem**	The evidence is provided via a Change Request 449 from ERA, and supported by the rail sector in the several CCM meetings (e.g. 22.05.19, 13.05.20) The magnitude of the problem cannot be quantified. Companies have to manage several codes for different rail applications (e.g. for vehicle registration, for vehicle data management in TAP/TAF) if the problem is not solved.
3.5.	**Baseline scenario**	The format of the company code used for telematics TSI's (TAF and TAP TSI) – a 4-digit numeric code - is not changed The company code format remains at 4-digits A procedure for administration of company code is needed to ensure the exclusive allocation of 4-digit numeric codes for TAF/TAP TSI functions.
3.6.	**Subsidiarity and proportionality**	Company codes are part of the TAP/TAF TSI

2. Objectives

3.1.	**Strategic and specific objectives**	<Mark, as appropriate, **the strategic objective(s) of the Agency** with which this initiative is coherent.> ☐ Europe becoming the world leader in railway safety ☐ Promoting rail transport to enhance its market share ☐ Improving the efficiency and coherence of the railway legal framework ☐ Optimising the Agency's capabilities ☐ Transparency, monitoring and evaluation ☒ Improve economic efficiency and societal benefits in railways ☐ Fostering the Agency's reputation in the world Specific Objectives: 1. To align the TAF/TAP TSI company codes with the requirements of the EVR regulation (Commission Implementing Decision (EU) 2018/1614 of 25 October 2018) 2. To enhance the coding range from 10000 organizations to more than 1.6 million organisations 3. To preserve interoperability with the already allocated 4-digit numeric company codes for telematics TSI's 4. To allow a stepwise migration to a the new codification scheme for users
3.2.	**Link with**	RI 4.4 – Degree of satisfaction of the various end users

Railway Indicators	

3. Options

3.1. List of options	Option 1 Stepwise migration to alphanumeric company code Option 2 One common transition date for the different rail actors
3.2. Description of options	Option 1: Stepwise migration to alphanumeric company code The format of the company code is changed to 4-alphanumeric characters The existing 4-digit numeric codes will be imported in the new code range and remain compatible with the new coding The migration of the technical document to 4 position alphanumeric organisation / company code The transitionary measures might apply (e.g. timing for the migration) depending on the impact for the different rail actors: • The temporary exclusion of some functional areas (e.g. ticketing) from the code allocation of 4-position alphanumeric codes. In this case for actors of this functional area, the 4-digit company codes have to be used for a transitional period. The milestone for the migration will be defined by ERA, based on the results of the impact assessment • The permanent exclusion of some functional areas (e.g. communication with OSJD-countries) from the code allocation of 4-position alphanumeric codes. In this case for actors of this functional area, the 4-digit company codes have to be used for an indefinite period. Option 2: One common transition date for the different rail actors • The format of the company code is changed to 4-alphanumeric characters • The existing 4-digit numeric codes will be imported in the new code range and remain compatible with the new coding • Migration of the TAF/TAP TSI technical document to 4 position alphanumeric organisation / company code
3.3. Uncertainties/risks	The Joint Sector Group provided the following feedback to ERA (mail from 30/04/20): • All stakeholders support both options equally, however the JSG is clearly in favour of option 2 proposing a common transition date for the transposition to alphanumeric company codes

	• No specific risks for the TAP/TAF TSI scope are identified, as long as ○ The deadline for the transposition is set to 2025. ○ The new codes allocated to TAF/TAP related companies and operating or exchanging information with OSJD (and OTIF) States should continue to receive a 4N CC until an agreement with OSJD (and OTIF) is defined.

4. Impacts of the options

3.1. Impacts of the options (qualitative analysis)

<Describe **qualitatively** all different categories of impacts for each of the analyzed options. Consider, where appropriate, all the economic, social and environmental impacts of the options. Highlight any impacts which are linked specifically to SMEs and potential impacts on competitiveness. Distinguish the impacts between positive and negative, as well as per category of stakeholder.>

Category of stakeholder	*All companies **	
Option 1	Positive impacts	It addresses all specific objectives 1-4 specified in section 2.3.1 Some business areas could profit from introduction of alphanumeric codes before 2026 because their IT tools already support these codes earlier.
	Negative impacts	Higher administrative burdens due to management of transition for the different TAP/TAF business areas. Higher impact for on TSI specifications as there are different deadlines for different business areas
Option 2	Positive impacts	It addresses all specific objectives 1-4 specified in section 2.3.1 Simplified transition regime in TSI It provides the same timeframe for migration for all actors and is fair and non-discriminatory. No specific additional impact for the sector expected, because until 2026 all IT systems support alphanumeric codes
	Negative impacts	No specific negative impacts

* impacted companies – as set out in section 1.3

3.2.	**Impacts of the options (quantitative analysis)**	The costs for the transition to alphanumeric codes are between 5kEUR and 25 kEUR per impacted company, as reported in the feedback from JSG to ERA (mail from 30/04/20). These costs are the same for the two options, however the timing is different. Most companies have already initiated the procurement for the required changes in their IT systems. Some companies have already compliant systems in place.

5. Preferred option

3.1.	**Preferred option(s)**	Both options have the same cost impact and address all specific objectives. The baseline does not address any of the specific objectives. The preferred option for the Joint Sector Group is option 2 due to the unique and transparent deadline for all stakeholders. It has to be ensured, that the this implementation deadline is end of 2025 to to allow a smooth and cost-efficient transition for all stakeholders.
3.2.	**Further work required**	See section 3.3.3

6. Monitoring and evaluation

3.1.	**Monitoring indicators**	Via TAF/TAP TSI implementation cooperation group. A permanent monitoring is set up to follow the implementation progress until 2025.
3.2.	**Future evaluations**	Not required