



# Standardisation and TSI Input Plan

Webinar

*11.01.2023*



## Webinar on the EU-RAIL JU Standardisation and TSI Input Plan (STIP)

### Context and approach

- Context and goal
- STIP process
- Topic assessment and structuring

### Review

- Review process
- Review purpose
- Review questions

### Orientation for review

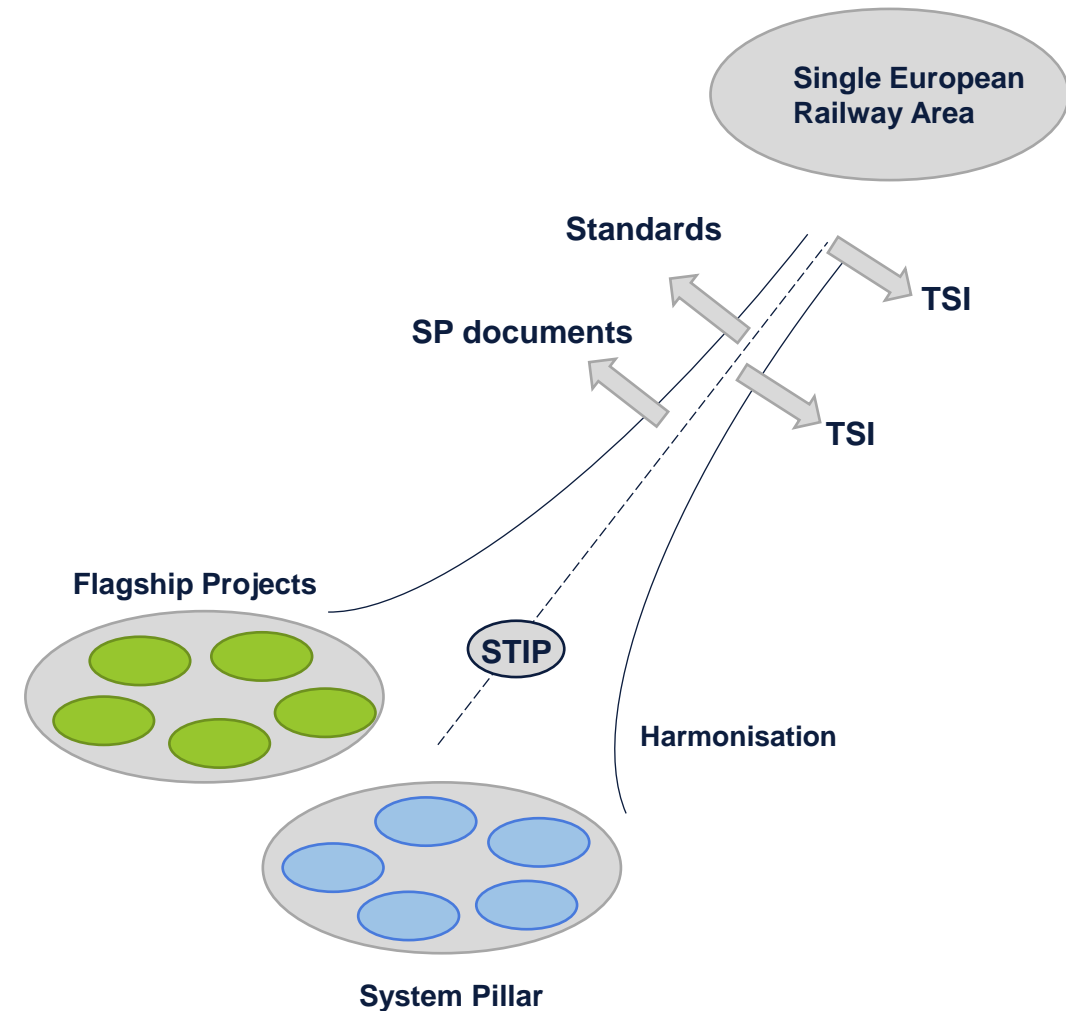
- Use of STIP table
- Analysis and review of topics

# Context and approach



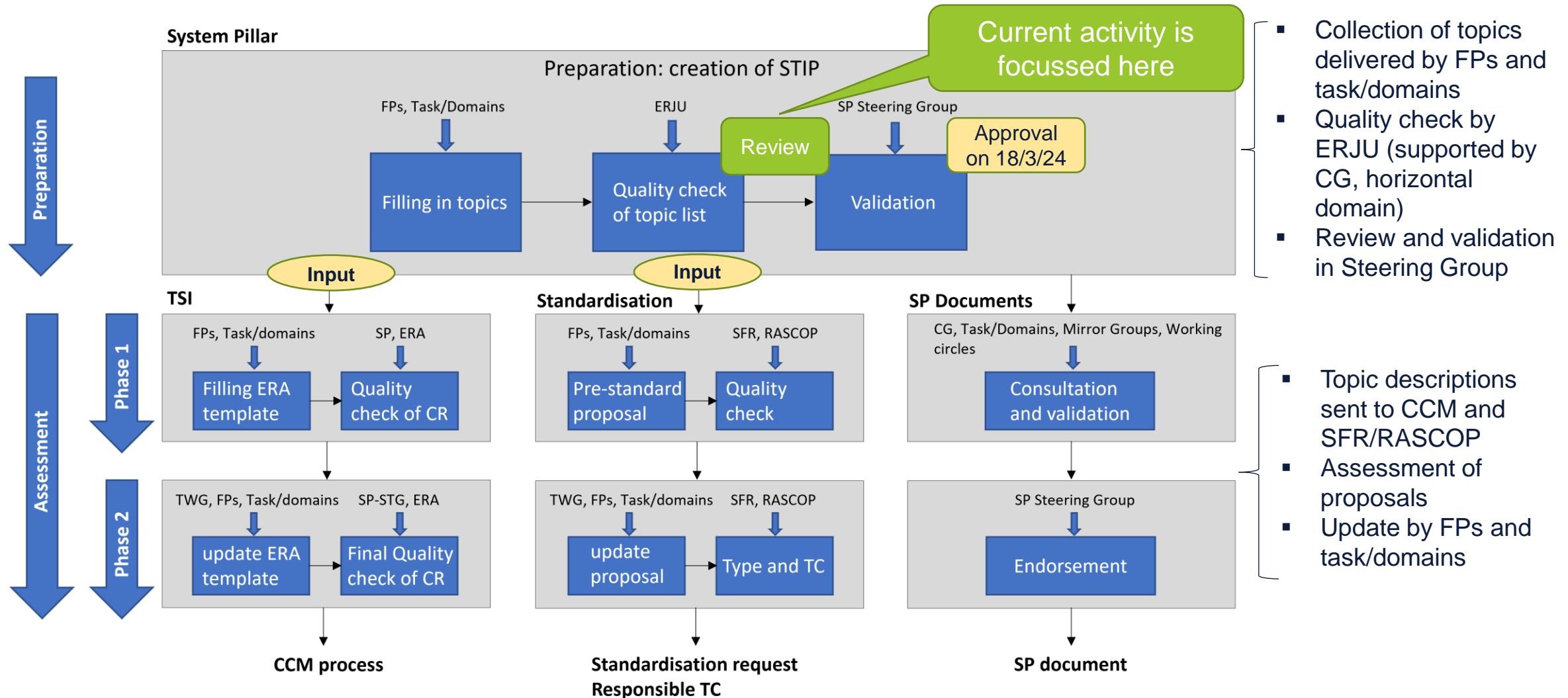
# Context and goal

- Harmonisation of the European Railway system to promote interoperability and faster, more cost-efficient deployment
- Collection of potential topics for harmonisation from EU-RAIL in the coming years (2024 until 2032...)
- Public document aiming at giving overview on harmonisation from EU-RAIL.
- A significant input to the DG MOVE mandate to ERA on the TSI revision and the DG MOVE request to the European Standardisation bodies.



# STIP process

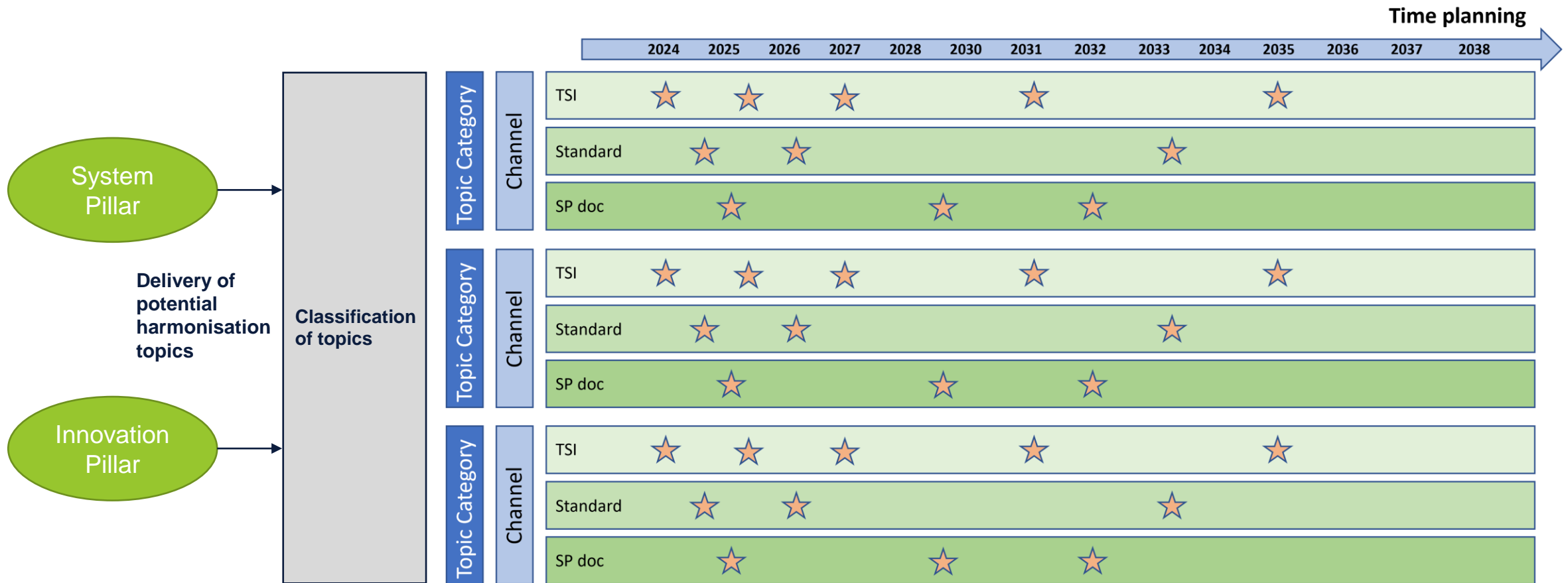
- Preparation and review of the STIP
- Deliver mature input to existing harmonisation processes (TSI, EN standards,...)



# Topic assessment and structuring

Topics in the STIP are structured according to:

- Topic category (technical domain, subsystem, ...)
- Harmonisation channel (TSI, EN standard, SP document, others)
- Time perspective (year of delivery to TSI CCM process/NWIP ESO, SP publication)



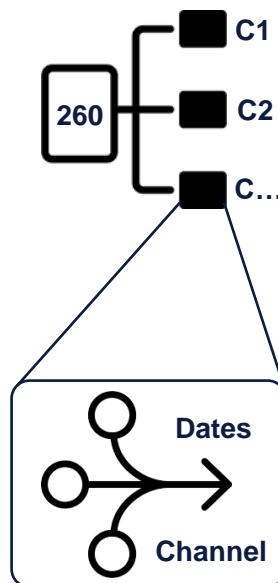
# Topic assessment and structuring

## 1. Classification of topics in categories

- 260 topics received from FPs, and SP
- Consolidated into 26 categories

## 2. Consolidation of topics within each category

- To ensure overall consistency, some topics were amended, merged with other topics or in some cases removed.
- Amendments concern: date of delivery (consistency with other topics), merging of overlapping inputs, modification of channel for consistency



## STIP Categories

C1	Operational harmonisation
C2	Evolvability and maintainability
C3	Enhancement TMS and CMS
C4	Enhancement ATO GoA2
C5	Enhancement ATO GoA3/4
C6	Enhancement ASTP
C7	Enhancement FDFTO
C8	Enhancement FRMCS
C9	Onboard Enhancement
C10	Enhancement Cybersecurity
C11	Enhancement Safety management
C12	Enhancement PRAM
C13	Enhancement Diagnosis, monitoring
C14	Enhancement CDAS
C15	Enhancement Trackside assets
C16	Enhancement Traffic CS and interface to TMS/CMS
C17	Enhancement Field force applications
C18	Enhancement Digital Register CCS/TMS
C19	Enhancement Digital Twin
C20	Enhancement Digital asset management, data spaces and models
C21	Enhancement Driving control, Adhesion management
C22	Enhancement Energy management and supply
C23	Enhancement Bridge dynamics
C24	Enhancement Drones
C25	Enhancement Alternative propulsion, traction energy
C26	Enhancement (other) ETCS Change Requests

# Review





# Review process

## Preparation of STIP V1

- Collection of topic
- Assessment and discussion with domains/FPs
- Consistent STIP (adapt, merge topics if needed)

## Review of STIP V1

- In general, the overall categorisation of the enhancements – is it complete/are there missing elements?
- In detail, the draft timing and content of the changes proposed



The document was sent for comment to:

- EU-RAIL members/SIPB
- SP-STG – including ERA and EC
- FPs
- SP Tasks and Domains
- CEN/CENELEC and SFR
- SRG

# Review purpose

The primary aim of the current review process is to examine the current inputs, in particular

- Is the list of identified categories complete?
- Within the categories, information has been consolidated – is this consolidation correct/is there additional information to be added or taken into account?

This has the aim to improve the current draft with a view to allowing the STIP V1:

- To be a complete and realistic forecast of topics delivered by the System and Innovation Pillar of EU-RAIL
- Taking into account the needs and expectations of the sector
- Allowing a reliable structuring and planning of harmonisation steps

# Review questions

## Review Questions.... ?

Are all relevant topics covered in the technical domains described in the STIP (interfaces)?

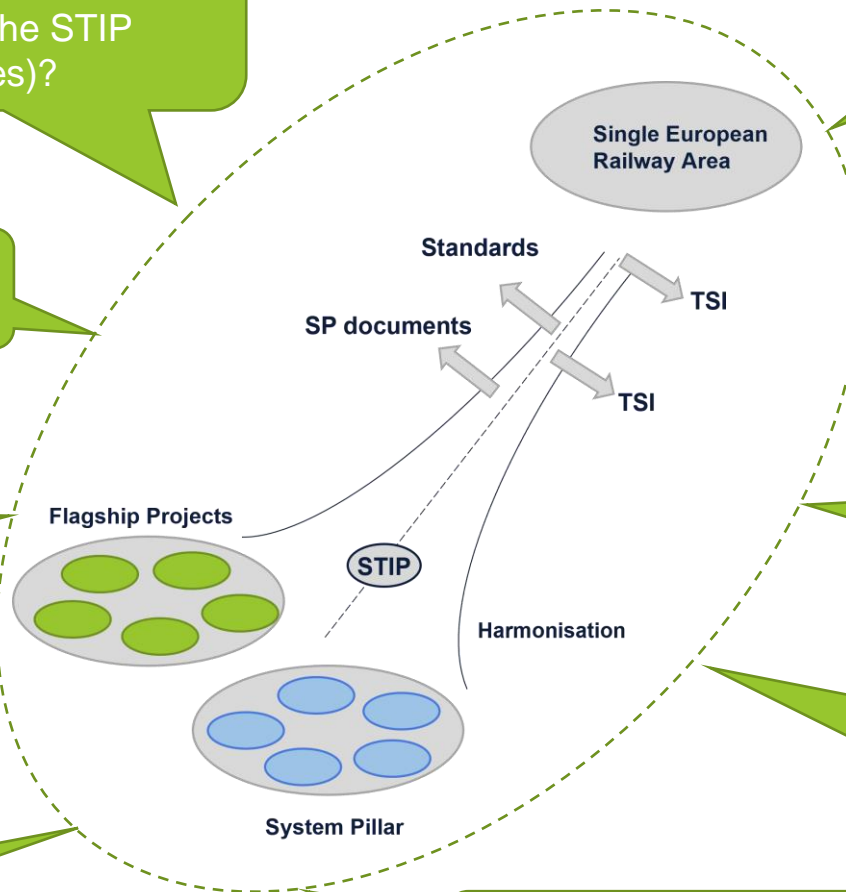
Is the time planning realistic for a mature topic?

Are dependencies between topic sufficiently considered?

Harmonisation channel: Which topics need to be mandatory (TSI)?

Are the ERA needs covered?

## STIP process and topics



Are the depended topics consistent with respect to time planning and harmonisation channel?

Are the topics aligned with deployment strategies (migration plateaus)?

Is the link between SP architecture work and FP demonstrators sufficiently considered?

Are all relevant existing harmonisation document (TSI, standards) considered?

Should topics be merged in one or split in several topics?

# Orientation for Review





# Use of STIP Table

2. Topics in Selected category C4:  
ATO GoA2

+	28	Enhancement ATO GoA2	C4					
	29	Enhancement ATO GoA2		STIP_21	C4	2025	TSI	System requirements and interfaces ATO Trackside
	30				STIP_22	C4	tbd	TSI
-	31	Enhancement ATO GoA3 and GoA4	C5					

Open and close category here







# Analysis and review of topics

## Search/Filter according to:

### Topic category :

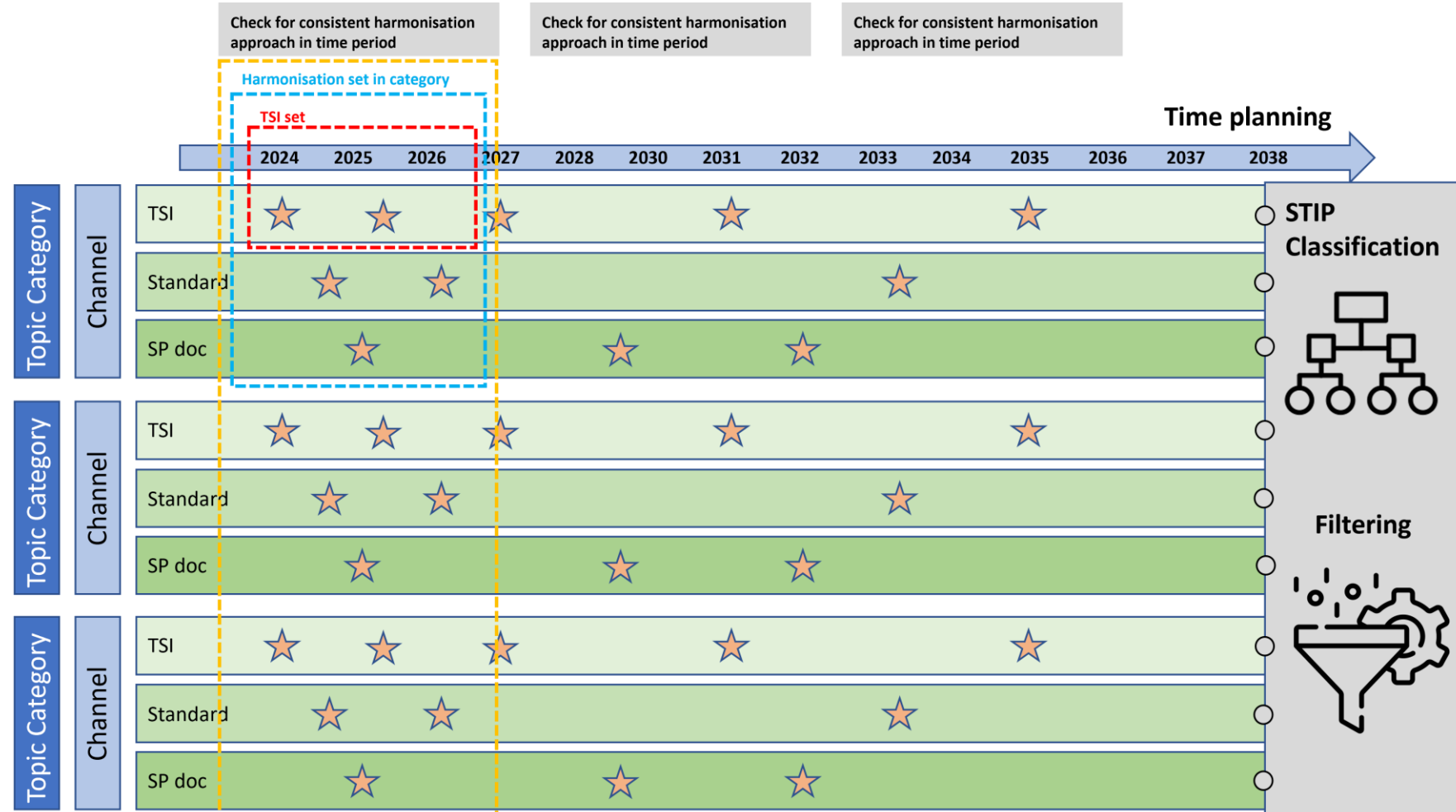
Review and analysis of topics belonging to one domain or subsystem

### Harmonisation channel:

Review and analysis of topics belonging to one harmonisation channel (TSI, EN standards, SP document, etc.)

### Time range (from-to):

Review and analysis of topics which are expected in a defined time period



# Analysis and review of topics

**Topic Search:** Based on time period, category, harmonisation channel and free-text topic search (*tbd: to be defined*)

**FILTER SETTING**



From Year	2023
Category	ALL
Channel	All channels
Topic search	

To Year

Topic ID	Category	Date	Channel	Topic	Entity	Key words	Short description	Link to detailed reference
STIP_1	C1	2026	TSI	Baseline for Piloting: Harmonized CCS related operational processes for ETCS L2, excl. ATO GoA 4	SP Operational Design	Operational Harmonization	First version for pilots: Operational description to allow for pilots Preliminary draft of operational rulebook <ul style="list-style-type: none"> <li>•Elimination of non-harmonized aspects, e.g. in current TSI OPE Annex A and driver's guideline</li> <li>•Precise and binding process description for each operational situation incl. degraded modes and transitions to other areas</li> <li>•Interaction with TMS processes</li> </ul>	
STIP_2	C1	2030	TSI	Harmonized CCS related operational processes for ETCS L2, excl. ATO GoA 4	SP Operational Design	Operational Harmonization	Amendments about (excl. ATO GoA4) <ul style="list-style-type: none"> <li>•Elimination of non-harmonized aspects, e.g. in current TSI OPE Annex A and driver's guideline</li> <li>•Precise and binding process description for each operational situation incl. degraded modes and transitions to other areas</li> <li>•Obligatory CCS-related Rulebooks (incl. processes and system usage) for all major actors, like driver, signaller, track worker</li> </ul>	
STIP_3	C1	2031	TSI	Harmonized CCS related operational processes for ETCS L2 in combination with ATO GoA 4	SP Operational Design	Operational Harmonization	Amendments about (in combination with ATO GoA4) <ul style="list-style-type: none"> <li>•Elimination of non-harmonized aspects, e.g. in current TSI OPE Annex A and driver's guideline</li> <li>•Precise and binding process description for each operational situation incl. degraded modes and transitions to other areas</li> <li>•Obligatory CCS-related Rulebooks (incl. processes and system usage) for all major actors, like driver, signaller, track worker</li> <li>•Interaction with TMS processes</li> </ul>	
STIP_4	C2	tbd	SP document	Standardisation of Computing Environment	Task2, FP2	Standardisation of Computing Environment	Standardisation of Computing Environment (requirements on Modular Platforms, the derived architecture and the specification),	See deliverable: FP2 WP26, D26.3
STIP_5	C2	2024	SP document	CCS Reference Architecture Specification	SP Architecture & Coordination	CCS Reference Architecture	Specification of the CCS Reference Architecture including naming its subsystems and interfaces, including G1 lines (regional)	document shall be based on ARC D2.7 and D.2.8

# Analysis and review of topics

- Delivery of the review until the 9<sup>th</sup> of February
- Review comments are provided for every topic directly in the STIP excel table (Review field)

ID	Cat	Date (input ready for external process)	Channel	Summary					REVIEW	REVIEW
				Topic	Entity	Key words	Short description	Link to detailed reference		Specific Comments
				short title of topic proposal	Which FP, WG, Task/domain team	key words	short description	links to the detailed documentation for the delivered topic		<i>Please give your specific comments to the STIP topics here</i>
STIP_1	C1	2026	TSI	Baseline for Piloting: Harmonized CCS related operational processes for ETCS L2, excl. ATO GoA 4	SP Operational Design	Operational Harmonization	First version for pilots: Operational description to allow for pilots Preliminary draft of operational rulebook •Elimination of non-harmonized aspects, e.g. in current TSI OPE Annex A and driver's guideline •Precise and binding process description for each operational situation incl. degraded modes and transitions to other areas •Interaction with TMS processes			
STIP_2	C1	2030	TSI	Harmonized CCS related operational processes for ETCS L2, excl. ATO GoA 4	SP Operational Design	Operational Harmonization	Amendments about (excl. ATO GoA4) •Elimination of non-harmonized aspects, e.g. in current TSI OPE Annex A and driver's guideline •Precise and binding process description for each operational situation incl. degraded modes and transitions to other areas •Obligatory CCS-related Rulebooks (incl. processes and system usage) for all major actors, like driver, signaller, track worker •Interaction with TMS processes			

Field for review comments in every topic line

# Questions + Discussion

Any questions?



**For any questions please contact:**  
[ian.conlon@rail-research.europa.eu](mailto:ian.conlon@rail-research.europa.eu)  
[soenke.kraft@rail-research.europa.eu](mailto:soenke.kraft@rail-research.europa.eu)

**Thank you**

