

ISSUANCE YEAR

NATIONAL IMPLEMENTATION PLAN
[MEMBER STATE]

Table of contents

1	General context description of the current status	2
1.1	Context description of the Class A systems, ATO and train detection part	2
1.1.1	Current status of deployment for Class A systems, ATO and train detection part 2	
1.1.2	Benefit for capacity, safety, reliability and performance aspects.....	12
1.1.3	Current mandatory onboard requirements.....	13
1.2	Context description of Class B systems	14
1.2.1	Current status for Class B systems	14
1.2.2	Measures taken to ensure open market conditions	18
2	Technical migration strategy	18
2.1	Technical migration strategy for ETCS part	18
2.2	Technical migration strategy for Radio part.....	22
2.3	Technical migration strategy for ATO part	28
2.4	Technical migration strategy for Train Detection part	30
2.5	Migration strategy of specific cases	2
3	Planning.....	2
3.1	Planning for train protection part	2
3.1.1	Dates when ETCS is placed in service	2
3.1.2	Decommissioning of Class B train protection systems	3
3.2	Planning for radio part.....	5
3.2.1	Dates when GSM-R is placed in service	5
3.2.2	Decommissioning of Class B radio systems	5
3.2.3	Dates when FRMCS is placed in service	6
3.2.4	Decommissioning of GSM-R.....	7
3.3	Planning for ATO part.....	8
3.4	Planning for train detection part	9
4	New mandatory onboard requirements	10

1 GENERAL CONTEXT DESCRIPTION OF THE CURRENT STATUS

1.1 Context description of the Class A systems, ATO and train detection part

1.1.1 Current status of deployment for Class A systems, ATO and train detection part

[This section shall include facts and figures on the current status of installed Class A (both train protection and radio), ATO and train detection systems.

This information should be provided including a map and a table of relevant information with the current deployment situation for each of the systems.

The template to be filled in to provide the information in this section is given below.]

- Current status of deployment for Class A train protection system

[If relevant, include here an explanatory text in relation to the current status of ETCS deployment.]

[Include in this gap the map that shows the current status of ETCS deployment. The map include shall clearly identified whether the ETCS is already in operation or only installed but not yet in operation.

Even if only those lines that are at least already installing ETCS are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 1: Current status of ETCS deployment

Table 1: Current status of ETCS deployment

ID	Line	Current status of deployment		Mandatory deadline of ETCS application	Additional information			Note
		Current status	Date when ETCS was placed in service		Length	Level(s)	Baseline and system version	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the ETCS deployment on the line. ETCS in operation/ ETCS installed]</i>	<i>[For lines with ETCS already in operation. Include here the date when ETCS was placed in service.]</i>	<i>[Include here the latest deadline for equipment of the line with ETCS established by EU regulations]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the ETCS level(s) implemented]</i>	<i>[Include here the baseline and the system version of the ETCS implemented]</i>	<i>[If relevant, include here additional comments]</i>

- Current status of deployment for ATO system

[this point is only mandatory in case the ATO deployment has already started]

[If relevant, include here an explanatory text in relation to ATO deployment.]

[Include in this gap the map that shows the current status of ATO deployment. The map include shall clearly identified whether the ATO is already in operation or only installed but not yet in operation.

Even if only those lines that are at least already installing ATO are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 2: Current status of ATO deployment

Table 2: Current status of ATO deployment

ID	Line	Current status of ATO deployment		Additional information			Note
		Current status	Date when ATO was placed in service	Length	Baseline	Other relevant aspects for ATO deployments (For example GoA)	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the ATO deployment on the line. ATO in operation/ ATO installed]</i>	<i>[For lines with ATO already in operation. Include here the date when ATO was placed in service.]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the baseline of the ATO implemented]</i>	<i>[Include here ...]</i>	<i>[If relevant, include here additional comments]</i>

- Current status of deployment for Class A radio system

[If relevant, include here an explanatory text in relation to the current status of Class A radio system.]

[Include in this gap the map that shows the current status GSM-R deployment. The map include shall clearly identified whether the GSM-R is already in service or only installed but not yet in service.

Even if only those lines that are at least already installing GSM-R are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 3: Current status of GSM-R deployment

[Include in this gap the map that shows the current status of FRMCS deployment. The map include shall clearly identified whether the FRMCS is already in service or only installed but not yet in service.

Even if only those lines that are at least already installing FRMCS are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.

Including this map is only mandatory in case the FRMCS deployment has already started.]

Figure 4: Current status of FRMCS deployment

Table 3: Current status of GSM-R deployment

		Current status of GSM-R deployment		Additional information			Note
ID	Line	Current status	Date when GSM-R was placed in service	Length	GSM-R voice/ GSM-R data	Baseline	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of GSM-R deployment on the line. GSM-R in service/ GSM-R installed]</i>	<i>[For lines with GSM-R radio system already in operation. Include here the date when Class A radio system was placed in service.]</i>	<i>[Include here the total length of the line]</i>	<i>[Specify here whether GSM-R voice or data is installed]</i>	<i>[Include here the baseline of the GSM-R implemented]</i>	<i>[If relevant, include here additional comments]</i>

Table 4: Current status of FRMCS deployment

ID	Line	Current status of FRMCS deployment		Additional information			Note
		Current status	Date when FRMCS was placed in service	Length	GSM-R condition	Baseline	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of FRMCS deployment on the line. FRMCS in service/ FRMCS installed]</i>	<i>[For lines with FRMCS radio system already in operation. Include here the date when Class A radio system was placed in service.]</i>	<i>[Include here the total length of the line]</i>	<i>[Specify here the condition of the line in relation to GSM-R. GSM-R in service/ GSM-R not in service]</i>	<i>[Include here the baseline of the FRMCS implemented]</i>	<i>[If relevant, include here additional comments]</i>

[Including Table 4: Current status of FRMCS deployment is only mandatory in case the FRMCS deployment has already started]

- Current status of deployment for TSI compliant train detection system

[If relevant, include here an explanatory text in relation to TSI compliant train detection deployment.]

[Include in this gap the map that shows the current status of TSI compliant train detection deployment. The map include shall clearly identified whether the TSI compliant train detection is already in service, only installed but not yet in service. Even if only those lines that are at least already installing TSI compliant train detection are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 5: Current status of TSI COMPLIANT TRAIN DETECTION deployment

Table 5: Current status of TSI compliant train detection deployment

ID	Line	Current status of TSI compliant train detection deployment		Additional information		Note
		Current status	Date when TSI compliant train detection was placed in service	Length	[Other relevant aspects for TSI Compliant train detection deployments]	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the TSI compliant train detection deployment on the line. TSI compliant train detection in service/ TSI compliant train detection installed]</i>	<i>[For lines with TSI compliant train detection already in service. Include here the date when TSI compliant train detection was placed in service.]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here ...]</i>	<i>[If relevant, include here additional comments]</i>

1.1.2 Benefit for capacity, safety, reliability and performance aspects

[This section shall include information of the benefits provided by TSI compliant Class A (both train protection and radio), ATO and train detection systems in relation to capacity, safety, reliability and performance.

For completeness, the section shall include both the method used to measure the benefits and the facts and figures of the impact.

The template to be filled in to provide the information in this section is given below]

[Include here the description of the methods/indicators used to measure benefits in capacity, safety, reliability and performance.

Table 6: Expected benefits in capacity, safety, reliability and performance

Benefits in:	System impact	Social impact	Stakeholder
Capacity	[Include here the indicators of the impact in the system regarding capacity. For example: % driving time reduction per train, % interval time reduction...]	[Include here the indicators of the social impact regarding capacity. For example: hours of travel time in a year saved by all passengers]	[include here the stakeholder expressing the need and agreements made within the MS for the expressed needs]
Safety	[Include here the indicators of the impact in the system regarding safety. For example: % decrease SPAD]	[Include here the indicators of the social impact regarding safety. For example: Reduction of number of fatalities per year]	[include here the stakeholder expressing the need and agreements made within the MS for the expressed needs]
Reliability	[Include here the indicators of the impact in the system regarding reliability. For example: % reduction of train delay due to malfunctions]	[Include here the indicators of the social impact regarding reliability. For example: reduction of expected number of passengers lost hours.]	[include here the stakeholder expressing the need and agreements made within the MS for the expressed needs]
Performance	[Include here the indicators of the impact in the system	[Include here the indicators of the social impact	[include here the stakeholder expressing the need

	<i>regarding performance.]</i>	<i>regarding performance.]</i>	<i>and agreements made within the MS for the expressed needs]</i>
...	

[The list of benefits and impacts can be adapted depending on the analysis realized by the MS]

1.1.3 Current mandatory onboard requirements

[This section shall include the current legal national reference to the CCS onboard requirements. In case these requirements differ between the different lines of the network, it has to be clearly defined which requirements are applicable in each case.

The template to be filled in to provide the information in this section is given below]

[If relevant, include here an explanatory text in relation to the current legal national reference to the CCS onboard requirements.]

Table 7: Investment plan information

Year	Stakeholder	Action
<i>[Include here the year when the investment will be done]</i>	<i>[Include here which stakeholder(s) will realise the investment]</i>	<i>[Include here which are the action(s) foreseen with this investment]</i>

Table 8: Current CCS on-board requirements

Geographical scope	Legal national reference to the CCS onboard requirements
<i>[Include here the geographical scope in which the specific requirements are currently applicable. For example: Complete network or specific lines.</i>	<i>[Include here the legal reference to the CCS on-board requirements or specify here the applicable requirement.</i>

1.2 Context description of Class B systems

[This section will not be mandatory in those Member States that have already completed Class B decommissioning.]

1.2.1 Current status for Class B systems

[This section shall include a context description of Class B systems current status and their economic lifetime. For completeness, it shall include at least:

- Context description of installed Class B systems.*
- Remaining economic lifetime of existing Class B systems.*

The information of the Class B system currently installed in each line shall be provided including a map and a table of relevant information.

The template to be filled in to provide the information in this section is given below]

- Current status for Class B train protection system

[Include here explanatory text of the different Class B train protection systems currently installed and the remaining economic lifetime of each of them.

[Include in this gap the map that shows which lines currently remain with Class B train protection system installed.

The map include shall clearly identified whether the Class B train protection system is still in operation, installed but not in operation or already being decommissioned. If there is more than one existing Class B train protection system, the map shall also identify the Class B installed in each line.

Even if only those lines that still have a Class B train protection system installed are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 6: Class B train protection system installed

Table 9: Class B train protection systems installed

ID	Line	Current status	Length	Class B train protection system installed	Note
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the Class B train protection system on the line. In operation/ Installed but not in operation/ Being decommissioned]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the Class B train protection system installed]</i>	<i>[If relevant, include here additional comments]</i>

- Current status for Class B radio system

[Include here explanatory text of the different Class B radio systems currently installed and the remaining economic lifetime of each of them.]

[Include in this gap the map that shows which lines currently remain with Class B radio system installed.]

The map include shall clearly identified whether the Class B radio system is still in service, installed but not in service or already being decommissioned. If there is more than one existing Class B radio system, the map shall also identify the Class B installed in each line.

Even if only those lines that still have a Class B radio system installed are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 7: Class B radio systems installed

Table 10: Class B radio systems installed

ID	Line	Current status	Length	Class B radio system installed	Note
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the Class B radio system on the line. In operation/ Installed but not in operation/ Being decommissioned]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the Class B radio system installed]</i>	<i>[If relevant, include here additional comments]</i>

1.2.2 Measures taken to ensure open market conditions

[This section shall include the description of the measure taken to ensure open market conditions for its legacy Class B systems as set out in paragraph 7.2.3

The template to be filled in to provide the information in this section is given below]

[Include here the specific measures taken to ensure open market conditions for the legacy Class B systems installed in the network as set out in paragraph 7.2.3. In the information provided it shall be clearly defined the specific measure for each of the Class B systems installed, i.e. at least the following information shall be included:

- *Type of Class B product and/or specifications that are openly available for integration with any ETCS onboard in existing rolling stock.*
- *Measure taken to ensure availability of the Class B product and/specification.*
- *Confirmation of availability of functional and interface specifications. Including link to the specifications*
- *If for technical or commercial reasons the availability cannot be ensured, specify the mitigation measures.]*

2 TECHNICAL MIGRATION STRATEGY

2.1 Technical migration strategy for ETCS part

[This section shall include information and planning of technical migration strategy of ETCS part, including ETCS Level and system version required per line and per network.

For completeness at least the following information shall be included:

- *Reasons for the decision on the ETCS level and system version in each line or type of line.*
- *Deployment strategy. Overlay on-board or overlay at trackside.*
- *Table which includes for each line the planning dates of deployment, ETCS level, System version, planning dates for Class B decommissioning on the line and other relevant information. The table shall provide the complete information of changes in the following 20 years.*

The lines included in this table together with the lines included in Table 1: Current status of ETCS deployment shall cover all network lines in scope of the TSI including the nodes and last mile connections.

The template to be filled in to provide the information in this section is given below.]

- Description of the solution implemented

[Include here the different solutions implemented and the specific reasons for selecting this solution for the network or for each type of line.]

- Deployment strategy for the implementation of ETCS

*[Include here the details of the migration strategy for the implementation of ETCS.
For example: Overlay onboard or overlay at trackside, foreseen dates when ETCS
only equipped vehicles operation will be allowed...]*

- Planning for ETCS deployment and Class B decommissioning

*[If relevant, include here an explanatory text in relation to planning of ETCS
deployment and Class B decommissioning.]*

Table 11: Planning for ETCS deployment and Class B train protection decommissioning

ID	Line	Planning for ETCS deployment			Planning for Class B train protection decommissioning			Additional deployment information				Note
		Current status	Date when ETCS will be placed in service	Mandatory deadline of ETCS application	Dates when ETCS-only equipped vehicles are allowed to run	Dates when Class B operation is not allowed any more	Dates when Class B is taken out of service	Length	Level(s)	Baseline and system version	Type of action	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line.]</i>	<i>[Include here the current status of the ETCS deployment on the line. Under construction/ not yet under construction]</i>	<i>[Include here the date when ETCS will be placed in service.]</i>	<i>[Include here the latest deadline for equipment of the line with ETCS established by EU regulations]</i>	<i>[include when the vehicles with ETCS only are allowed to run on the line]</i>	<i>[If the line is equipped with a Class B train protection system, include here the date when Class B operation is not allowed anymore.]</i>	<i>[If not similar to the previous column, include here the date when Class B system is taken out of service]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the ETCS level(s) that will be implemented]</i>	<i>[Include here the baseline and the system version of the ETCS that will be implemented]</i>	<i>[Include here the type of ETCS action. New/renew/upgrade]</i>	<i>[If relevant, include here additional comments]</i>

2.2 Technical migration strategy for Radio part

[This section shall include information and planning of the technical migration strategy for Radio part, including information on radio systems (e.g radio circuit switching or packet switching, radio infill options for ETCS).

For completeness at least the following information shall be included:

- *Strategy for the introduction of GSM-R. Overlay on-board or overlay at trackside for Class A radio part introduction.*
- *Strategy for the introduction of the next generation communication system(s).*
- *Table which includes for each line the planning dates of GSM-R deployment and Class B radio part decommissioning, radio circuit switching implemented or only packet switching and other relevant information. The table shall provide the complete information of changes in the following 20 years.*
- *Table which includes for each line the planning dates of FRMCS deployment, if applicable radio infill options, planning for GSM-R decommissioning and other relevant information. The table shall provide the complete information of changes in the following 20 years.*

The lines included in these tables together with the lines included in Table 3: Current status of GSM-R deployment and Table 4: Current status of FRMCS deployment shall cover all network lines in scope of the TSI including the nodes and last mile connections.

The template to be filled in to provide the information in this section is given below.]

- Strategy for the introduction of GSM-R

[Include here the information of the strategy followed for the introduction of GSM-R.

For example: Migration strategy (overlay onboard or at trackside) in relation to the Class B radio part, radio circuit switching implementation or only packet switching...]

- Strategy for the introduction of the next generation communication system(s).

[Include here the details of the migration strategy for the introduction of the next generation of communication systems.

- Planning for GSM-R deployment and Class B radio system decommissioning

[If relevant, include here an explanatory text in relation to planning of GSM-R deployment and Class B radio part decommissioning.]

Table 12: Planning for GSM-R deployment and Class B radio part decommissioning

ID	Line	Planning for GSM-R deployment			Planning for Class B radio decommissioning		Additional information					Note
		Current status	Realization	Date when GSM-R is placed in service	Dates when Class B operation is not allowed any more	Dates when Class B is taken out of service	Length	GSM-R voice/GSM-R data	Baseline	Circuit switching / Packet switching	Type of action	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the GSM-R deployment on the line. Under construction/ not yet under construction]</i>	<i>[Include here the date when the construction started or is expected to start.]</i>	<i>[Include here the date when GSM-R will be placed in service.]</i>	<i>[If the line is equipped with a Class B radio system, include here the date when Class B operation is not</i>	<i>[If not similar to the previous column, include here the date when Class B</i>	<i>[Include here the total length of the line]</i>	<i>[Specify here whether GSM-R voice or data is installed]</i>	<i>[Include here the baseline of the GSM-R to be implemented]</i>	<i>[Include here if radio circuit switching is implemented or only packet switching]</i>	<i>[Include here the type of Radio part action. New/renew/upgrade]</i>	<i>[If relevant, include here additional comments]</i>

					<i>allowed anymor e.]</i>	<i>system is taken out of service]</i>							

- Planning for FRMCS deployment and GSM-R decommissioning

[If relevant, include here an explanatory text in relation to planning of FRMCS deployment and GSM-R decommissioning.]

Table 13: Planning for FRMCS deployment and GSM-R decommissioning

ID	Line	Planning for FRMCS deployment			Planning for GSM-R decommissioning		Additional information				Note
		Current status	Realization	Date when FRMCS is placed in service	Dates when GSM-R operation is not allowed any more	Dates when GSM-R is taken out of service	Length	Baseline	Pre-existing GSM-R condition	Type of action	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the FRMCS deployment on the line. Under construction/ not yet under construction]</i>	<i>[Include here the date when the construction started or is expected to start.]</i>	<i>[Include here the date when FRMCS will be placed in service.]</i>	<i>[If the line is equipped with GSM-R system, include here the date when Class B operation is not allowed anymore.]</i>	<i>[If not similar to the previous column, include here the date when GSM-R system is taken out of service]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the baseline of the FRMCS to be implemented]</i>	<i>[Specify here the condition of the line in relation to GSM-R. GSM-R in service/ GSM-R will be in service before FRMCS/ Pre-</i>	<i>[Include here the type of Radio part action. New/renew/upgrade]</i>	<i>[If relevant, include here additional comments]</i>

						<i>service</i> <i>]</i>			<i>existing</i> <i>GSM-R</i> <i>not</i> <i>foreseen</i> <i>]</i>		

2.3 Technical migration strategy for ATO part

[This section shall include information and planning of technical migration strategy of ATO part, including information on the need for deployment of ATO.]

For completeness at least the following information shall be included:

- *Deployment strategy. Reason for deployment of ATO.*
- *Table which includes for each line the planning dates of ATO deployment and other relevant information. The table shall provide the complete information of changes in the following 20 years. Including this table is only mandatory if the ATO is expected to be implemented in the next 20 years.*

The template to be filled in to provide the information in this section is given below.]

- Deployment strategy for ATO

[Include here the details of the deployment strategy of ATO, including information on the reason for deployment]

- Planning for ATO deployment

[If relevant, include here an explanatory text in relation to planning of ATO deployment.]

Table 14: Planning for ATO deployment

ID	Line	Planning for ATO deployment		Additional information			Note
		Current status	Date when ATO is placed in service	Length	Baseline	Other relevant aspects for ATO deployments (For example GoA)	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the ATO deployment on the line. Under construction/ not yet under construction]</i>	<i>[Include here the date when ATO will be placed in service.]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the baseline of the ATO to be implemented]</i>	<i>[Include here ...]</i>	<i>[If relevant, include here additional comments]</i>

2.4 Technical migration strategy for Train Detection part

[This section shall include information and planning of the technical migration strategy of TSI compliant train detection part.

For completeness at least the following information shall be included:

- *Deployment strategy. Information on the migration to the TSI compliant train detection system.*
- *Table which includes for each line the planning dates of TSI compliant train detection system deployment and other relevant information. The table shall provide the complete information of changes in the following 20 years.*

The template to be filled in to provide the information in this section is given below]

- Deployment strategy for TSI compliant train detection system

[Include here the details of the migration strategy to the TSI compliant train detection system.

- Planning for TSI compliant train detection system deployment

[If relevant, include here an explanatory text in relation to planning of the TSI compliant train detection system deployment.]

Table 15: Planning for TSI compliant train detection deployment

ID	Line	Planning for TSI compliant train detection deployment		Additional information			Note
		Current status	Date when TSI compliant train detection is placed in service	Length	Type of action	[Other relevant aspects for TSI Compliant train detection deployments]	
<i>[Include here the line identification number]</i>	<i>[Include here the name of the line]</i>	<i>[Include here the current status of the TSI compliant train detection deployment on the line. Under construction/ not yet under construction]</i>	<i>[Include here the date when TSI compliant train detection will be placed in service.]</i>	<i>[Include here the total length of the line]</i>	<i>[Include here the type of train detection part action. New/ renew/ upgrade]</i>	<i>[Include here ...]</i>	<i>[If relevant, include here additional comments]</i>

2.5 Migration strategy of specific cases

[This section shall include information and planning of the technical migration strategy for specific cases state on section 7.6 of the CCS TSI.

The template to be filled in to provide the information in this section is given below]

[Include here the details of the migration strategy of the specific cases stated on section 7.6 of CCS TSI.

It shall be clearly defined in the information provided to which specific route or networks are each specific case limited to and if applicable, the relevant dates for the migration.

3 PLANNING

[For all the network maps to be included in this section, the map shall provide a planning overview of changes in the next 20 years.]

3.1 Planning for train protection part

3.1.1 Dates when ETCS is placed in service

[This section shall include a network map providing an overview with dates when ETCS is placed in service.

This section is not mandatory for those Member States which have already completed the ETCS deployment in all lines in scope of the TSI including the nodes and last mile connections and do not foreseen any upgrade, renew or new line in the next 20 years.

The template to be filled in to provide the information in this section is given below.]

[Include in this gap the network map providing the overview of dates when ECTS is placed in service in the next 20 years. The map include shall clearly identified the dates when ECTS is placed in service, the level and the system version.

Even if only those lines on which new, upgraded or renewed ETCS implementation of ETCS is foreseen are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 8: network map. dates when ETCS is placed in service

3.1.2 Decommissioning of Class B train protection systems

[This section shall include a network map providing an overview with dates when Class B operation is not allowed anymore. If not similar, this section shall also include a network map providing and overview with dates where Class B system is taken out of service.

This section is not mandatory for those Member States which have already completed the decommissioning of its Class B protection systems or which have never used a Class B train protection system.

The template to be filled in to provide the information in this section is given below.]

[Include in this gap the network map providing the overview of dates when Class B operation is not allowed anymore in the next 20 years.

Even if only those lines on which is planned to not allow Class B operation anymore are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 9: Network map. dates when Class B operation is not allowed anymore

[Include in this gap the network map providing the overview of dates where Class B system is taken out of service in the next 20 years.

Even if only those lines on which is planned to take out of service Class B train protection are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.

Including this map is not mandatory if similar to the previous one Figure 9: Network map. dates when Class B operation is not allowed anymore]

Figure 10: Network map. Dates where Class B train protection system is taken out of service

3.2 Planning for radio part

3.2.1 Dates when GSM-R is placed in service

[This section shall include a network map providing an overview with dates when GSM-R is placed in service.]

This section is not mandatory for those Member States that have already completed the GSM-R deployment in all lines in scope of the TSI including the nodes and last mile connections.

The template to be filled in to provide the information in this section is given below.]

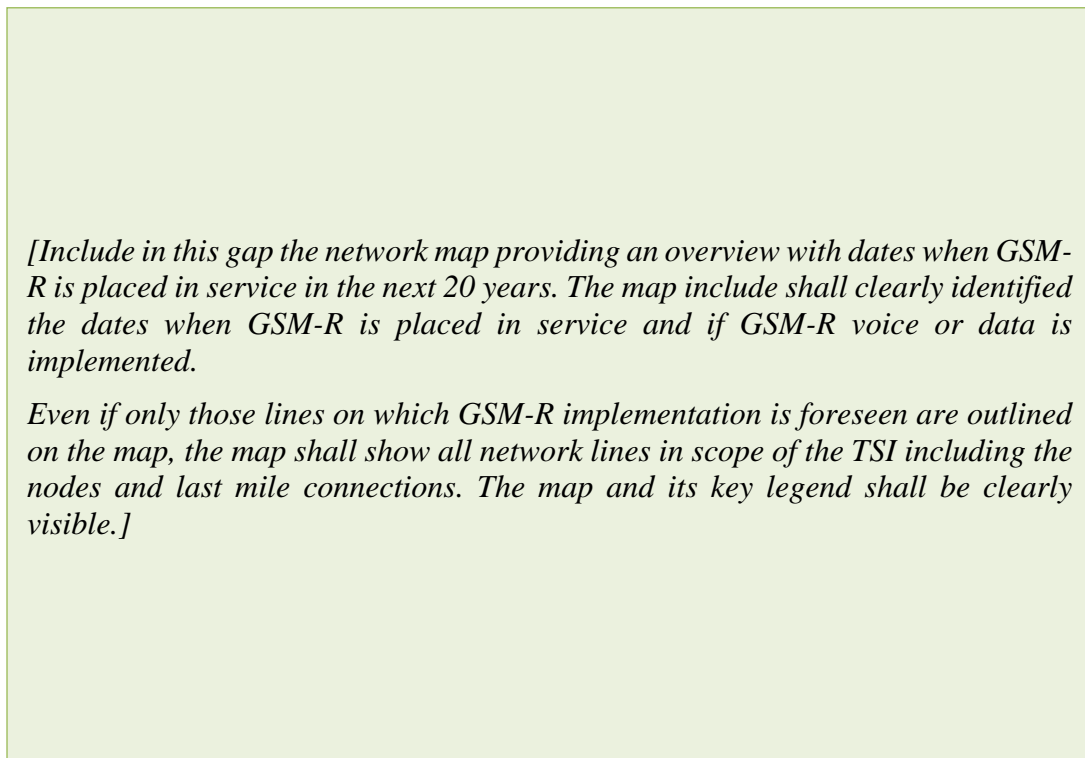


Figure 11: Network map. Dates when GSM-R is placed in service

3.2.2 Decommissioning of Class B radio systems

[This section shall include a network map providing an overview with dates when Class B radio operation is not allowed anymore. If not similar, this section shall also include a network map providing and overview with dates where Class B radio system is taken out of service.]

This section is not mandatory for those Member States which have already completed the decommissioning of its Class B radio systems.

The template to be filled in to provide the information in this section is given below.]

[Include in this gap the network map providing an overview with dates when Class B radio operation is not allowed anymore in the next 20 years.

Even if only those lines on which is planned to not allow Class B radio operation anymore are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 12: Network map. Dates when Class B radio operation is not allowed anymore

[Include in this gap the network map providing and overview with dates where Class B radio system is taken out of service in the next 20 years.

Even if only those lines on which is planned to take out of service Class B radio are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.

Including this map is not mandatory if similar to the previous one Figure 12: Network map. Dates when Class B radio operation is not allowed anymore]

Figure 13: Network map. Dates where Class B radio system is taken out of service

3.2.3 Dates when FRMCS is placed in service

[This section shall include a network map providing an overview with dates when FRMCS is placed in service.

This section is not mandatory for those Member States that do not foresee FRMCS implementation in the next 20 years.

The template to be filled in to provide the information in this section is given below.]

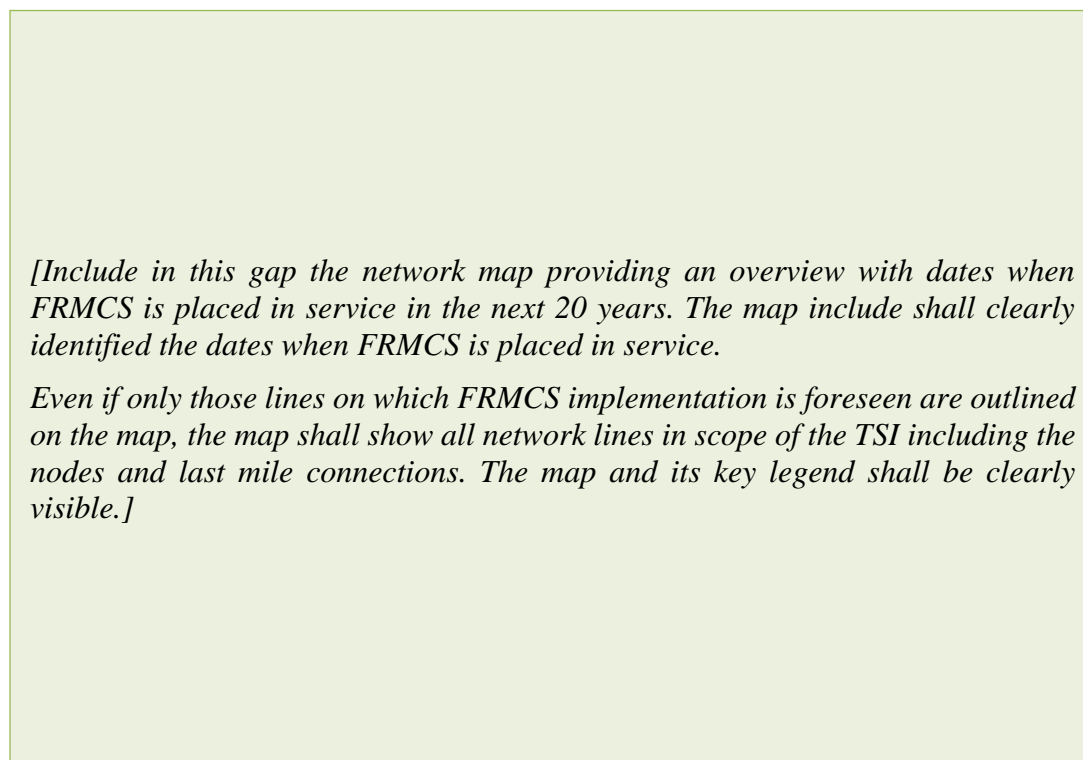


Figure 14: Network map. Dates when FRMCS is placed in service

3.2.4 Decommissioning of GSM-R

[This section shall include a network map providing an overview with dates when GSM-R radio operation is not allowed anymore. If not similar, this section shall also include a network map providing an overview with dates where GSM-R system is taken out of service.

This section is not mandatory for those Member States which do not foresee GSM-R decommissioning in the next 20 years.

The template to be filled in to provide the information in this section is given below]

[Include in this gap the network map providing an overview with dates when GSM-R radio operation is not allowed anymore in the next 20 years.

Even if only those lines on which is planned to not allow GSM-R operation anymore are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 15: Network map. Dates when GSM-R radio operation is not allowed anymore

[Include in this gap the network map providing an overview with dates where GSM-R system is taken out of service in the next 20 years.

Even if only those lines on which is planned to take out of service GSM-R radio are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.

Including this map is not mandatory if similar to the previous one Figure 15: Network map. Dates when GSM-R radio operation is not allowed anymore]

Figure 16: Network map. Dates where GSM-R system is taken out of service

3.3 Planning for ATO part

[This section shall include a network map providing an overview with dates when ATO is placed in service.

This section is not mandatory for those Member States that do not foresee to put ATO into service in the next 20 years.]

The template to be filled in to provide the information in this section is given below.]

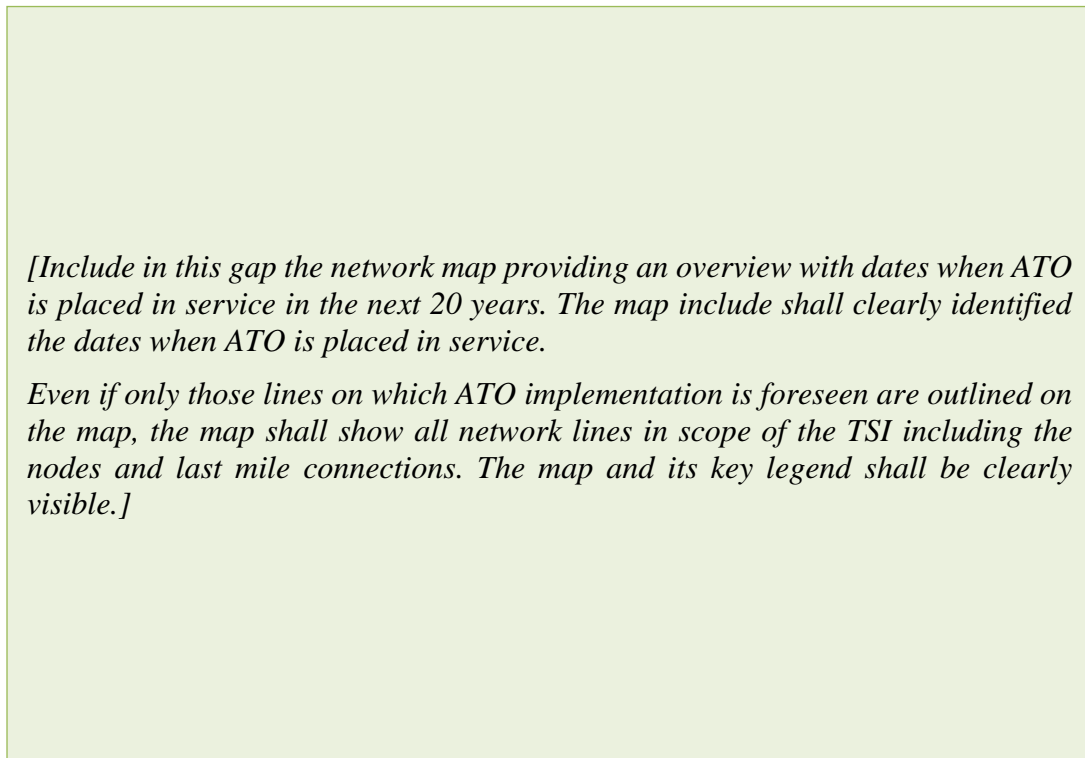


Figure 17: Network map. Dates when ATO is placed in service

3.4 Planning for train detection part

[This section shall include a network map providing an overview with dates when TSI compliant train detection system is placed in service.

The template to be filled in to provide the information in this section is given below.]

[Include in this gap the network map providing an overview with dates when TSI compliant train detection system is placed in service in the next 20 years. The map include shall clearly identified the dates when TSI compliant train detection system is placed in service.

Even if only those lines on which TSI compliant train detection system implementation is foreseen are outlined on the map, the map shall show all network lines in scope of the TSI including the nodes and last mile connections. The map and its key legend shall be clearly visible.]

Figure 18: Network map. Dates when TSI compliant train detection system is placed in service

4 NEW MANDATORY ON-BOARD REQUIREMENTS

[This section shall include information of new mandatory onboard requirements that will be required for operating on the network, ensuring that notifications to RUs are provided at least 5 years in advance.

The template to be filled in to provide the information in this section is given below]

[If relevant, include here an explanatory text in relation to new mandatory onboard requirements that will be required for operating on the network.]

Table 16: New mandatory on-board requirements

Geographical scope	New CCS on-board requirements	Date of application
<i>[Include here the geographical scope in which the specific requirements will be applicable. For example: Complete network or specific lines.</i>	<i>[Include here the legal reference to the new CCS on-board requirements or specify here the new CCS onboard requirements</i>	<i>[Include here date of application of the new CCS on-board requirement. At the earliest, a 5-year period is required.</i>
