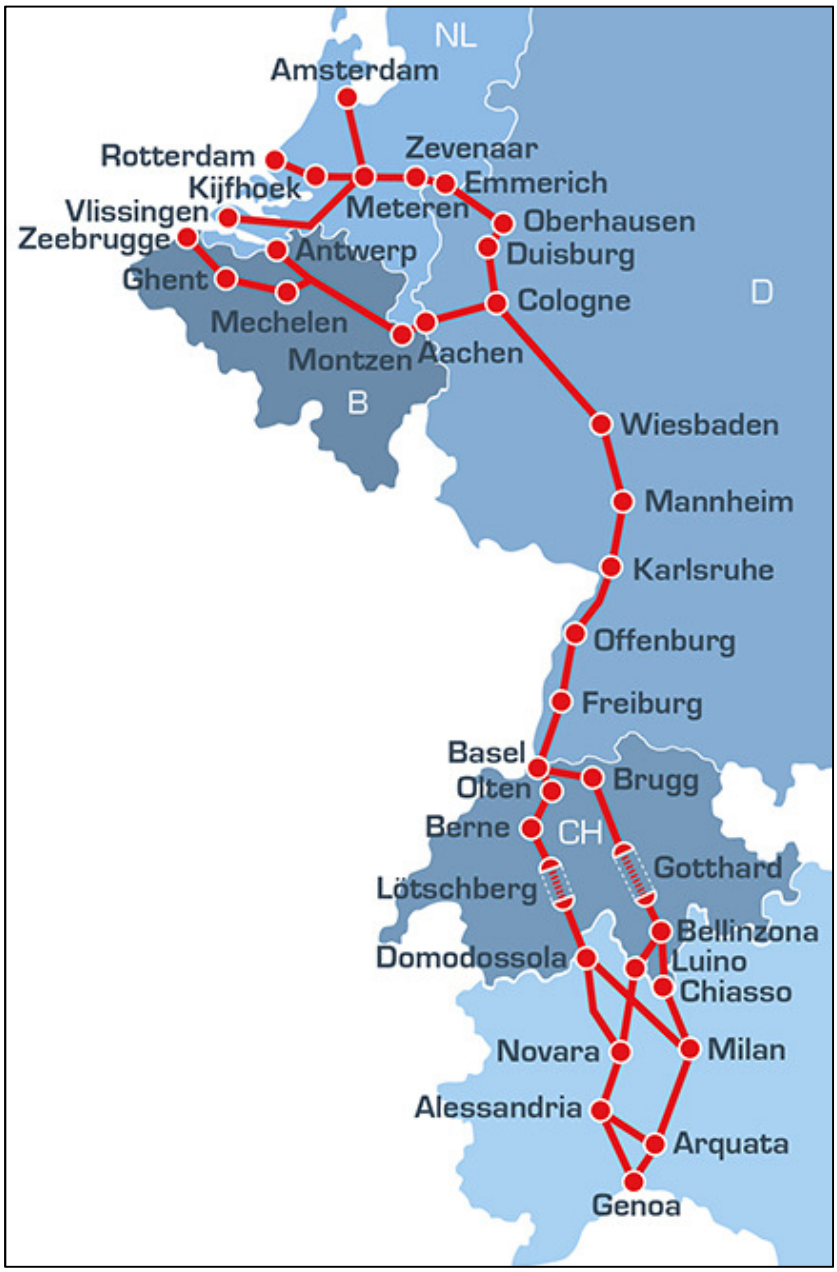
RFC Rhine-Alpine

IMPLEMENTATION PLAN Update 2018

ANNEX 5B: List of Projects



Status: 14 November 2018

Source: CIP, based on information of Infrastructure Managers on RFC Rhine-Alpine

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Germany	ERTMS	ETCS equipment in the node of Basel	ETCS equipment on the DB Netz tracks in the node of Basel	Interoperability	15,00	2018.12	secured
Switzerland	ERTMS	ETCS equipment in the node of Basel (CH)	ETCS equipment on German tracks in CH	Interoperability	15,00	2018.12	secured
Italy	ERTMS	ERTMS Border-Luino and Border-Domodossola	ERTMS installation	Interoperability	20,00	2018.12	secured
Italy	ERTMS	ERTMS Domodossola - Novara (Via Borgomanero)	ERTMS Installation	Interoperability	10,00	2018.12	secured
Netherlands	Infrastructure	Botlekbrug on the Harbourline - Oude Maas river crossing	Adjusting railway bridge and improving connection to Botlek Freightyard	Capacity	N/A	2019.12	secured
Switzerland	Infrastructure	Bellinzona - Luino upgrade	Bellinzona Luino line upgrade 750 m	Train length	108,00	2019.12	secured
Belgium	Infrastructure	Port of Zeebrugge	Various extension works in the port of Zeebrugge	Capacity	4,61[1]	2020.12	planned
Belgium	Infrastructure	Port of Gent	Various extension works in the port of Gent	Capacity	0,51	2020.12	secured
Belgium	Infrastructure	Port of Antwerp: left bank	Various extension and renewal works on the left bank of the port of Antwerp	Capacity	1,00	2020.12	secured
Belgium	Infrastructure	Port of Antwerp: Right bank	Various extension and renewal works on the right bank of the port of Antwerp	Capacity	5,70	2020.12	secured
Belgium	Infrastructure	Kinkempois: extension of fan of sidings	Extension of fan of sidings in the formation yard of Kinkempois	Capacity	19,96	2020.12	secured
Belgium	Infrastructure	Electrification Mol - Dutch border	Electrification of line 19 between Mol and the Dutch border	Capacity	46,30	2020.12	secured

[1] for all Belgian projects: amounts are from 2017 and in € 2017

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Belgium	Infrastructure	Level crossing removal	Level Crossing Removal: 12 level crossing removal mainly on RFC RALP and RFC NSMED lines	Capacity	26,93[2]	2020.12	secured
Italy	Infrastructure	Genoa-Campasso station upgrade	Genoa-Campasso station upgrade in preparation to the new planned connection of the Succursale line to Genova Marittima (port)	Capacity	26,00	2020.12	secured
Switzerland	Infrastructure	Ceneri Base Tunnel	Construction of Ceneri Basel Tunnel	Capacity + Travel time reduction	2.500,00	2020.12	secured
Switzerland	Infrastructure	Eppenberg Tunnel	new tunnel, additional 2 tracks - total 4 tracks Daeniken - Woeschnau	Capacity + Quality	814,00	2020.12	secured
Switzerland	Infrastructure	Replacement control center Chiasso	Construction of a new control center	Capacity + Interoperability + Quality	105,80	2020.12	secured
Switzerland	Infrastructure	Gotthard Corridor Lines Profile upgrade to 4m	Corridor Lines Profile upgrade to 4m	Loading gauge	588,00	2020.12	secured
Belgium	Infrastructure	Port of Gent: construction of 750m tracks	Construction of side tracks of 750m in the port of Gent	Train length	4,58	2021.12	secured
Netherlands	Infrastructure	Redesign Geldermalsen (PHS) and free level track at Geldermalsen - Geldermalsen asl.	sidings at Geldermalsen for 740m freight trains and separate track Geldermalsen - Geldermalsen asl. direction Beesd / Dordrecht	Capacity + Train length	133,00	2021.12	secured
Netherlands	Infrastructure	Theemsweg track	Detour Theemsweg (Harbour Line) to avoid the Calandbrug	Capacity	299,00	2021.12	secured
Italy	Infrastructure	Upgrading to 750 sidings on the pass access lines_1	The project includes overall upgrading works to 750 m sidings for all lines that	Capacity + Train length	267,00	2021.12	planned

[2] Total amount for project - no split per RFC

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
			allow access to the three borders with Switzerland: Domodossola, Luino and Chiasso. Putting into service will be done step by step and will be completed by 2021.				
Italy	ERTMS	ERTMS Milano - Genova	ERTMS Installation	Interoperability	22,00	2021.12	planned
Italy	Infrastructure	Milano Smistamento terminal upgrading	Transfer station upgrading interventions (signalling adjustment work in RFI station, demolitions and independences with the new Alptransit intermodal terminal realization)	Capacity	22,00	2021.12	secured
Italy	Infrastructure	Upgrading of the sidings up to 750 meter on the lines to access the Giovi Pass	Upgrading of the sidings up to 750 meter on the lines to access the Giovi Pass	Capacity + Train length	110,00	2021.12	planned
Switzerland	Infrastructure	Efficiency improvement Chiasso	Extension of sidings up to 750m	Capacity + Train length	112,30	2021.12	secured
Italy	ERTMS	ERTMS Chiasso-Milano Smistamento	ERTMS installation	Interoperability	12,00	2021.12	secured
Italy	Infrastructure	Voltri - Brignole, structural upgrade-Phase 1	Genoa Voltri - Genova Brignole, Structural upgrade of line Including capacity improvement of Voltri Mare shunting yard (dedicated to port traffics)	Capacity	642,00	2021.12	secured
Italy	Infrastructure	Port of Genoa: Rail plan	Various extension works in the Port of Genoa	Capacity + Train length	36,00	2021.12	planned
Switzerland	Infrastructure	Node Bellinzona	Upgrade marshalling yard San Paolo	Train length	149,00	2021.12	secured

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Switzerland	Infrastructure	Improvement Basel RB	New parking areas for locos, longer sidings, capacity improvements Basel RB	Quality + Quality + Train length	26,10	2022.11	secured
Germany	ERTMS	Oberhausen - Basel	ERTMS equipment existing line	Interoperability	650,00	2022.12	secured
Belgium	Infrastructure	Port of Antwerp: Right Bank - Signalling of fan of sidings	Signalling of regularly used fan of sidings on right bank of the port of Antwerp	Capacity	17,00	2022.12	secured
Netherlands	Infrastructure	Redevelopment Waalhaven Zuid freight yard	Increasing capacilty and track length	Capacity	65,00	2022.12	planned
Italy	Infrastructure	Upgrate to PC80 loading gauge on railway access to the Terzo Valico /succursale	Upgrate to PC80 loading gauge on railway access to the Terzo Valico	Capacity	120,00	2022.12	planned
Belgium	ERTMS	ETCS equipment	Equipment of the remaining part of the Belgian network with ETCS	Interoperability	1.299,34[3]	2022.12	Secured
Italy	Infrastructure	Terzo Valico (Giovi pass) new line construction	Terzo Valico (Giovi pass) new line construction connecting the port of Genoa with Tortona	Capacity	6200,00	2023.09	planned
Belgium	Infrastructure	Junction Oude Landen	Construction of junction at Oude Landen (L27A) to provide a better access to the port of Antwerp	Capacity	80,01	2023.12	secured
Belgium	Infrastructure	Side tracks 750m	Construction of side tracks 750m in Belgium apart from major projects where this is already included in other works	Train length	12,99	2023.12	secured
Belgium	Infrastructure	Second access to the Port of Antwerp	Study on construction of new line between Antwerp North and Lier to provide a better access to the Port of Antwerp	Capacity	3,80	2023.12	secured

[3] Total amount for project - no split per RFC

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Switzerland	Infrastructure	Basel - Bellinzona - Chiasso Headway reduction	Block headway 3', Bellinzona, incl 750 m Bellinzona - Chiasso	Train length + Capacity	25,00	2023.12	secured
Switzerland	Infrastructure	Rupperswil-Maegenwil	Capacity expansion	Capacity	138,50	2023.12	secured
Belgium	Infrastructure	Junction Schellebelle	Construction of junction in Schellebelle (L50A)	Capacity	18,42	2024.12	planned
Germany	Infrastructure	Tunnel Rastatt	Construction project Tunnel Rastatt and new line Karlsruhe - Rastatt	Capacity	755,00	2024.12	secured
Belgium	Infrastructure	Third and 4th track Gent - Brugge	Building of 3rd and 4th track between Brugge and Gent (L50A)	Capacity	206,50	2024.12	secured
Switzerland	Infrastructure	3rd track Giubiasco-Bellinzona	3rd track Giubiasco-Bellinzona	Quality	146,10	2025.11	secured
Belgium	Infrastructure	Study L59 3rd track between Lokeren and Sint Niklaas	Studies and first works related to the construc-tion of a third track between Lokeren and Sint-Niklaas and the removal of level crossings	Capacity	33,82	2025.12	secured
Belgium	Infrastructure	Masterplan port of Zeebrugge	Extension and modernisation of Zeebrugge Formation with a new hub of 24 tracks in Zwankendamme and a fan of sidings in Zeebrugge and the removal of the level crossing in Lissewege	Capacity	81,68	2025.12	secured
Belgium	Infrastructure	Second track Neerpelt - Balen werkplaats	Studies, construction and electrification of a 2nd track on L19 between Neerpelt and Balen-werkplaats	Capacity	43,80	2025.12	secured
Switzerland	Infrastructure	Fly over Muttenz	Construction fly over between Basel and Muttenz	Quality	261,00	2025.12	secured
Switzerland	Infrastructure	Disentanglement Liestal	Liestal - Construction of crossover possibilities	Capacity	290,00	2025.12	secured

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Netherlands	ERTMS	ERTMS Haarlem en omgeving	Implementing ERTMS around Haarlem	Interoperability	N/A	2026.03	planned
Netherlands	ERTMS	ERTMS Kijfhoek - Roosendaal grens	Implementing ERTMS between Kijfhoek and Roosendaal border	Interoperability	N/A	2026.09	planned
Germany	Infrastructure	Border Emmerich - Oberhausen	3rd track - A relevant date/year for going-live can only be given once the building permits are granted	Capacity	2.341,20	2026.12	planned
Germany	ERTMS	Border NL/D - Oberhausen	ERTMS equipment existing line A relevant date/year for going-live can only be given once the building permits are granted	Interoperability	N/A	2026.12	planned
Netherlands	Infrastructure	4 tracks 's Hertogenbosch - Vught aansl. and free crossing Vught	Adding a fourth track between 's Hertogenbosch and Vught aansl. Construction of a free level crossing at Vught aansl.	Capacity	N/A	2026.12	planned
Netherlands	Infrastructure	South-West curve Meteren	new connection Betuweline (Kijfhoek) to 's-Hertogenbosch	Capacity	N/A	2026.12	planned
Italy	Infrastructure	Power supply system upgrade	Power supply system upgrade (only Chiasso Line)	Capacity	21,00	2026.12	secured
Italy	Infrastructure	Upgrading Milano node	Including: development-oriented interventions on the railway transport lines; construction of a bypass of Rho station (PRG RHO); Headways upgrading (lines Milano P. Garibaldi - Milano Greco/Lambrate and Monza - Greco Pirelli - Milano Lambrate); PRG Monza; PRG + ACC Milano Porta garibaldi; PRG + ACC Milano Lambrate; High capacity headways	Capacity	830,00	2026.12	planned

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Italy	Signalling	Technological Upgrading	Upgrading measures regarding command and control systems in the stations and other traffic management systems (Chiasso - Milano e Domodossola - Milano)	Capacity	168,00	2026.12	planned
Italy	Signalling	Technological Upgrading Tortona-Milano	Speed upgrading, includes old technologies upgrade concerning control system in stations and headways (preparatory for ERTMS) and infrastructural upgrading interventions	Capacity	156,00	2026.12	planned
Switzerland	Infrastructure	Fly over Pratteln	Level free crossing	Capacity	425,00	2027.11	to be decided
Netherlands	ERTMS	ERTMS Roosendaal - Den Bosch	Implementing ERTMS between Roosendaal and 's Hertogenbosch	Interoperability	N/A	2027.12	planned
Netherlands	ERTMS	ERTMS Utrecht - Meteren	Implementing ERTMS between Utrecht Centraal and Betuweroute Meteren	Interoperability	N/A	2028.09	planned
Netherlands	Infrastructure	Free level crossing at Amsterdam Dijksgracht	free entrance to Amsterdam Westhaven	Capacity	N/A	2028.12	planned
Belgium	Infrastructure	By-pass Mechelen - Complex Otterbeek	By-pass Mechelen - Complex Otterbeek	Capacity	85,72	2028.12	planned
Switzerland	Infrastructure	Loetschberg Base Tunnel, 2nd track middle part	Equipment Ferden-Mitholz (2nd tube) with tracks and catenary. Optionally, the excava-tion of a second tube between Mitholz and Frutigen is evaluated. Strategic infrastruc-ture development project of Switzer-land. Part of the National Network STEP AS 2025 and for the National Offering STEP AS 2030. The decision by Parliament is expec-ted in early 2019. Start of realization not before 2022. Commissioning not before 2029.	Capacity + Interoperability + Quality	620,00	2029.01	to be decided

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Netherlands	ERTMS	ERTMS Eindhoven - Venlo border	Implementing ERTMS between Eindhoven and Venlo border	Interoperability	N/A	2029.03	planned
Netherlands	ERTMS	ERTMS Meteren - Eindhoven	Implementing ERTMS between Meteren and Eindhoven	Interoperability	N/A	2029.06	planned
Italy	Infrastructure	Oleggio-Arona installing second track	Second track on the section Oleggio - Arona	Capacity + Interoperability	160,00	2030.12	planned
Italy	Infrastructure	Tortona-Voghera quadrupling of line	Upgrade to 4 tracks of the section Tortona-Voghera	Capacity	600,00	2030.12	planned
Italy	ERTMS	ERTMS Completion Corridor Rhine - Alpine	Step by step completion of the whole corridor ERTMS Installation	Interoperability	82,00	2030.12	planned
Italy	Infrastructure	Tortona-Voghera quadrupling of line	Upgrade to 4 tracks of the section Tortona-Voghera	Capacity	600,00	2030.12	planned
Italy	Infrastructure	Upgrading to PC 80 profile on the access lines to the borders	The project includes several actions aiming at upgrading to PC80 the profile of the lines to access the three Swiss border sections from Novara and Milan. The single projects have different time horizons for go-live and also different status of planning. The section Milan-Chiasso is foreseen to go live in the end of 2018 and the Luino lines in 2020 while the remaining sections are a time scenario up to end of 2030.	Interoperability	503,00	2030.12	planned
Italy	ERTMS	ERTMS Completion Corridor Rhine - Alpine	Step by step completion of the whole corridor ERTMS Installation	Interoperability	82,00	2030.12	planned

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Italy	Infrastructure	MI Rogoredo-Pieve Emanuele track quadrupling	Upgrade to 4 tracks between Milano Rogoredo and Pavia (26 km), with the construction of the Pieve Emanuele station. Milano Rogoredo station is already compliant with the new line requirements. Phases of the intervention: 1) 4th track between Milano Rogoredo and Pieve Emanuele, 2) 4th track to Pavia and PRG implementation in the Pavia Station	Capacity	900,00	2030.12	planned
Italy	Infrastructure	Upgrading Gallarate-Parabiago-Rho section	Infrastructural and technological upgrade of the Domodossola - Milano line, section Gallarate - Rho. It involves: - the installation of a fourth track alongside the railway line between the stations of Rho and Parabiago, - technology upgrade for capacity increase, - Link Y in Busto Arsizio	Capacity	728,00	2030.12	planned
Germany	Infrastructure	NBS Frankfurt – Mannheim	Construction of new High-Speed Line	Capacity	To be clarified	after 2030	to be decided
Belgium	Infrastructure	Third track Brugge - Dudzele	Building of a third track between Brugge and Dudzele (L51, L51A and L51C)	Capacity	68,87	2031.12	planned
Switzerland	Infrastructure	Guemligen - Muensingen	Guemligen - Muensingen: construction disentanglement Wankdorf South and Guemlingen South (instead of a 3rd track)	Capacity	652,00	2031.12	secured
Italy	Infrastructure	Seregno - Bergamo - Treviglio, Gronda Est	Bypass Milano node	Capacity	1.000,00	2035.12	planned
Italy	Infrastructure	Chiasso-Monza installation of 3rd + 4th track	Chiasso-Monza installation of 3rd + 4th track	Capacity	1.412,00	2035.12	planned
Italy	Infrastructure	Vignale-Oleggio-Arona installation second track	Doubling of the section	Capacity	535,00	2035.12	planned

Country	Project Category	Project Name	Description	Benefit	Total budget (in mio €)	Go Live Date	Decision Status
Germany	Infrastructure	ABS Grenze D/NL Kaldenkirchen - Viersen - Rheydt	Double track Kaldenkirchen - Duelken and Rheydt - Rheydt-Odenkirchen, Curve of Viersen (incorporating German part of Iron Rhine)	Capacity	N/A	2035.12	to be decided
Germany	Infrastructure	ABS/NBS Karlsruhe-Basel, Offenburg - Basel	Construction 3rd + 4th track and upgrade existing tracks Karlsruhe-Basel	Capacity	9.382,90	2041.12	planned
Netherlands	ERTMS	ERTMS Amsterdam Centraal	Implementing ERTMS around Amsterdam Centraal	Interoperability	N/A	open	planned
Netherlands	Infrastructure	Venlo PHS 740 Meter Trains	Extending 1 or 2 freight tracks to support handling 740 meter trains	Capacity	N/A	open	to be decided
Netherlands	Infrastructure	Improving and upgrading capacity Hamont/Budel border - border NL/DE	study routing freight trains Antwerp - Ruhr area	Capacity	N/A	open	planned
Netherlands	Infrastructure	Harbourline - 25 kV connection Betuweline	change catanary supply 1,5 kV to 25 kV	Quality	N/A	open	to be decided
Netherlands	Infrastructure	Improving capacity Sophiatunnel from 6 trains/hour to 10 trains/hour	Investigating capacity and to recommend measures to increase the capacity.	Capacity	N/A	open	to be decided