



Completing the European Railway Network

CEF FUNDED RAILWAY PROJECTS SINCE 2014



BACKGROUND INFORMATION

‘Completing the European Railway network: CEF funded railway projects since 2014’ is produced by the Directorate-General for Mobility and Transport (DG MOVE) of the European Commission for information purposes and cannot be interpreted as an official position of the European Commission. The scope of the analysis was based on works only and mixed projects (works and studies). Pure studies have been excluded from the analysis.

Any questions or suggestions relating to the analysis should be addressed to:

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ATLANTIC CORRIDOR

**CEF RAILWAYS PROJECTS
SINCE 2014**

15

Projects

4

Member States

2.342 bn €

Total Investments

1.064 M€

CEF Support

**NEW CEF RAILWAYS PROJECTS
IN 2020**

3

Projects

2

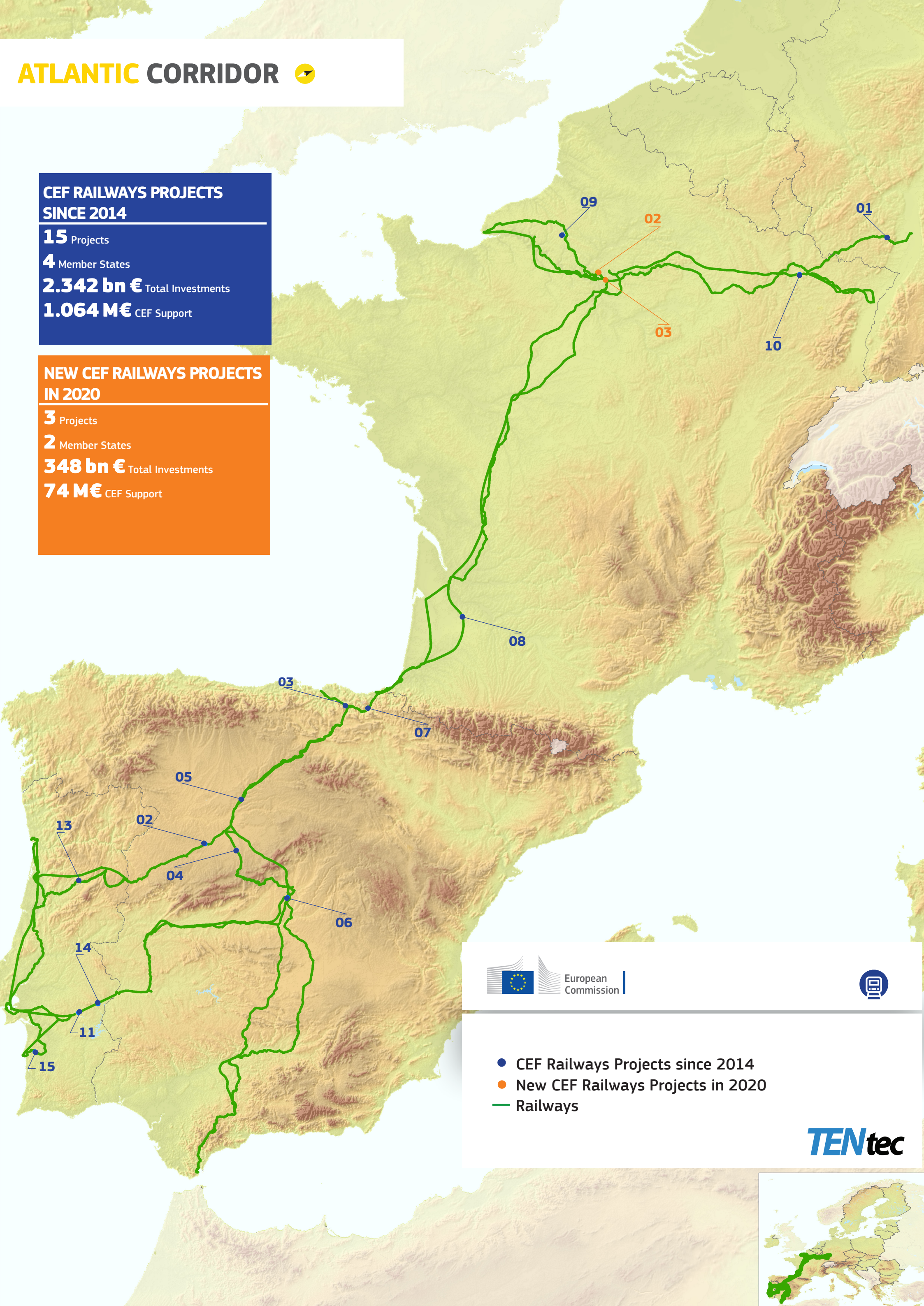
Member States

348 bn €

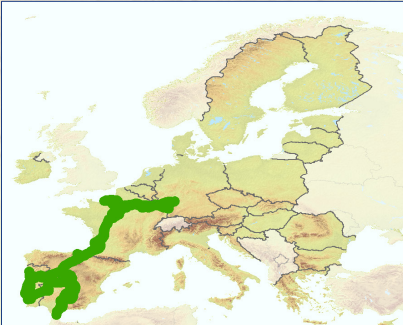
Total Investments

74 M€


CEF Support



- CEF Railways Projects since 2014
- New CEF Railways Projects in 2020
- Railways



CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE 	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	Upgraded line 23 Saarbrücken – Ludwigshafen (POS Nord), Upgrade of the Neustadt – Boehl-Iggelheim and Landstuhl – Kaiserlautern route sections for v = 200 km/h, implementation of ETCS (European Train Control System)	116,35	24,43
2	ATLANTIC CORRIDOR: RAILWAY CONNECTION AVEIRO – SALAMANCA – MEDINA DEL CAMPO. WORKS OF ENERGY FACILITIES IN CONVENTIONAL RAILWAY LINE MEDINA DEL CAMPO-SALAMANCA-FUENTES DE OÑORO AND SERVICES TO FOLLOW-UP WORKS	48,98	19,59
3	Bilbao-Pamplona-Zaragoza-Sagunto. Section Bilbao-Vitoria HSRL. Works on the platform subsections Elorrio-Atxondo, Atxondo-Abadiño and services for follow-up works	90,38	10,53
4	Upgrade of Spanish High Speed Lines to version 2.3.0.d. of ERTMS (ETCS+GSMR) 2nd Phase	8,38	4,19
5	ERTMS deployment on the section Valladolid – Burgos	15,57	7,78
6	ATLANTIC CORRIDOR. SUPPLY, ELECTRICAL FACILITIES AND ACOUSTIC WORKS ON THE SECTION CHAMARTÍN-ATOCHA-TORREJÓN DE VELASCO OF THE HSRL MADRID-LISBOA AND MADRID-BOBADILLA	38,16	9,91
7	ATLANTIC CORRIDOR: SECTION BERGARA-SAN SEBASTIAN-BAYONNE. STUDIES AND WORKS AND SERVICES FOR FOLLOW-UP WORKS. PHASE 1	610,45	244,5
8	Rail2Bordeaux - Rail connections to the port of Bordeaux, maritime node of the Atlantic Corridor	40,55	6,48
9	Modernisation de la ligne Serqueux-Gisors	229,63	71,03
10	ETCS Deployment on the French part of the Antwerp-Basel route (including section Metz-Strasbourg)	110,99	55,5
11	Ligação Ferroviária Sines/Elvas (Espanha): Troço Évora-Caia e Estação Técnica ao km 118 da Linha do Sul (Railway connection Sines/Elvas (Spain): Évora-Caia Section and Technical Station at km 118 of the South Line)	315,45	127,72
12	Design and equipment of ERTMS for six border crossing corridor sections as well as two gap closings on German TEN core network corridors	51,74	17,52
13	Beira Alta line (Pampilhosa-Vilar Formoso): detailed design and works	547,74	375,86
14	Ligação Ferroviária Sines/Elvas (Espanha): Troço Évora-Caia - 2.ª Fase	73,06	55,84
15	Ligação Ferroviária Sines/Elvas (Espanha): Troço Sines-Ermidas-Grândola (Obra)	44,14	33,74

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	ERTMS prototyping for TRAXX MS2 and TRAXX AC3 locomotives	7,56	2,70
02	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
03	Line for Airport And Research Area (LARA)	319,49	63,90

* The projects highlighted in light blue are related to mobile assets, such as rolling stock and on-board equipment and are not shown on the map

BALTIC ADRIATIC CORRIDOR ⚡

**CEF RAILWAYS PROJECTS
SINCE 2014**

23

Projects

5

Member States

3.818 M €

Total Investments

1.882 M €

CEF Support

**NEW CEF RAILWAYS
PROJECTS IN 2020**

4

Projects

3

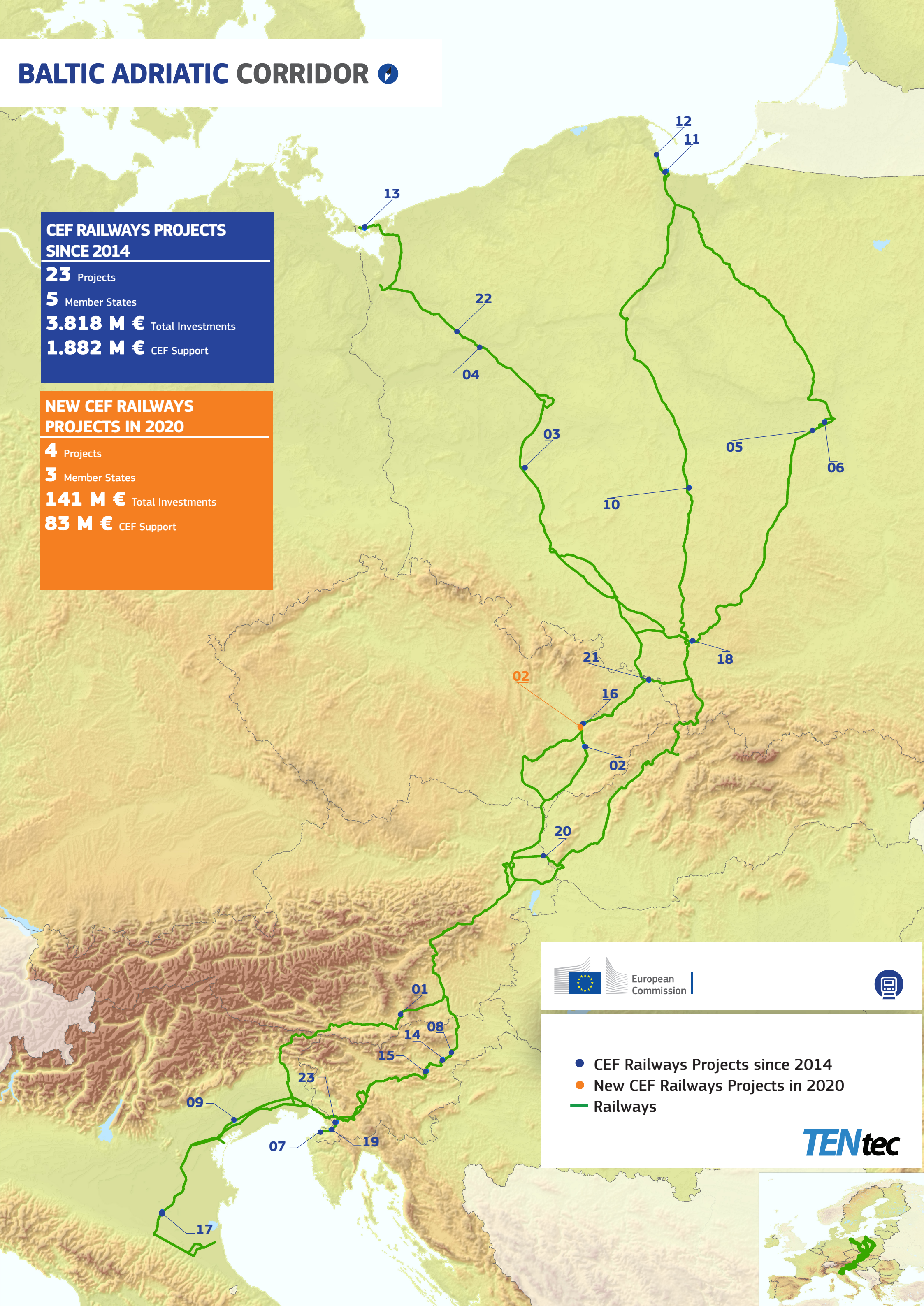
Member States



141 M €

Total Investments

83 M €

CEF Support

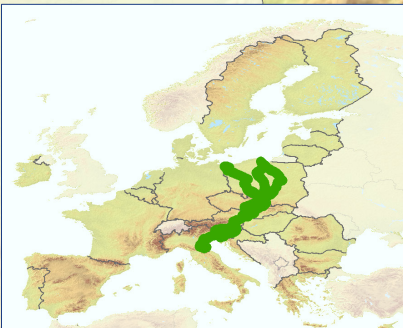






- CEF Railways Projects since 2014
- New CEF Railways Projects in 2020
- Railways

TENtec



CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE ↗	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Baltic-Adriatic Corridor—Rail: Koralm railway line (Graz – Klagenfurt); package of implementation measures being carried out from 2014 to establish a new line (removal of a bottleneck)	191,93	55,18
02	ETCS Petrovice u Karviné – Ostrava – Přerov – Břeclav	24,14	20,52
03	Works on the E 59 railway line on the Wrocław – Poznań section, stage IV, border of Dolnosląskie Voivodeship – Czempin section.	364,83	226,5
04	Works on the E 59 railway line, Poznań Główny-Szczecin Dąbie section.	531,61	407,53
05	Works on railway line Warszawa Włochy - Grodzisk Mazowiecki (line no. 447)	82,69	50,35
06	Works on the Warsaw ring railway (section Warszawa Gołębki/Warszawa Zachodnia - Warszawa Gdańska).	80,64	45,96
07	Bottleneck rehabilitation in the area of Bivje on the Divača–Koper railway line	24,19	14,19
08	Upgrading of the railway line Poljčane - Slovenska Bistrica	42,14	11,94
09	ERTMS trackside equipment on Italian sections of the ERTMS/Core Network Corridors in compliance with the Breakthrough Program	91,42	45,71
10	Works on railway lines no. 14 and 811 on the section Łódź Kaliska - Zduńska Wola- Ostrów Wielkopolski, stage I: Łódź Kaliska-Zduńska Wola	113,09	43,16
11	Improving rail access to the Gdansk port	141,51	108,54
12	Improving rail access to the Gdynia port	190,87	162,24
13	Improving rail access to the Szczecin and Świnoujście seaports.	143,67	119,9
14	Deployment of ERTMS/ETCS on the Dobova-Zidani Most and Pragersko-Maribor-Šentilj railway lines	7,50	6,37
15	Upgrade of the Zidani Most - Celje railway line	158,63	90,58
16	Upgrade of the Přerov railway junction, phase 2	42,36	33,14
17	ERTMS on strategic sections of 3 CNCs	54,50	27,25
18	Works on primary passenger lines (E30 and E65) within the Silesian Province, stage I: E65 railway line, Będzin – Katowice – Tychy – Czechowice Dziedzice – Zebrzydowice; LOT C Most Wisła – Czechowice Dziedzice – Zabrzeg section	111,71	94,95
19	Second track “Divača-Koper” – Surveys, executive design, construction of access roads and structures for bridging Glinščica Valley	52,16	44,33
20	Upgrading and electrification from Vienna Stadlau to the Slovakian Border near Marchegg (bottleneck removal)	328,77	65,75
21	Removing selected bottlenecks on pre-identified sections of the Core Network Corridors	191,42	38,28
22	Works on the E 59 railway line on the Wronki - Słonice section	302,74	60,55
23	Second track “Divača-Koper” – Construction of tunnels T1-T7	545,13	109,03

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Deployment of on-board ETCS in selected prototypes	18,73	6,30
02	Junction Prerov, 2nd construction - Technologies and selected infrastructure	68,68	57,32
03	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
04	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35

* The projects highlighted in light blue are related to mobile assets, such as rolling stock and on-board equipment and are not shown on the map

NORTH SEA-MEDITERRANEAN CORRIDOR

CEF RAILWAYS PROJECTS SINCE 2014

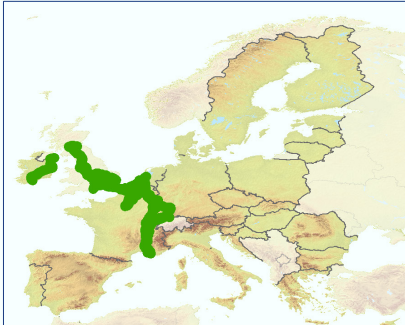
15 Projects
6 Member States
1.024 M € Total Investments
273 M € CEF Support

NEW CEF RAILWAYS PROJECTS IN 2020

8 Projects
5 Member States
573 M € Total Investments
143 M € CEF Support



- CEF Railways Projects since 2014
- New CEF Railways Projects in 2020
- Railways



CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE ↗	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	Bottleneck Alleviation and Cross Border Connectivity Works on a section of the North-Sea – Mediterranean Core Corridor Knockmore to Lurgan Rail Line	32,28	6,31
2	“EuroCap-Rail”. Luxembourg rail network. Works regarding the construction of a new section providing a direct link between Luxembourg Station and Bettembourg Station.	212,47	25,95
3	Removing the bottleneck on the rail freight corridor between mainport Rotterdam and the European hinterland by realising the Theemsweg railway section.	10,12	2
4	ETCS Deployment on the French part of the Antwerp-Basel route	11,02	1,68
5	Improvement of the railway connection between Hatrival and Luxemburg, part of the cross-border rail link between Brussels and Luxemburg situated on the North Sea – Mediterranean CNC (EuroCap-rail)	88,88	35,55
6	City Centre Re-signaling Project	43,60	10,94
7	Detailed technical studies and construction works for the purpose of removing the bottleneck at the Strasbourg node	79,20	24,60
8	Core Network - Lyon urban node - elimination of the railway bottleneck	20,88	5,57
9	Lyon urban node – Elimination of the railway bottleneck (preparatory works)	13,95	2,79
10	ETCS L2 track-side deployment on 2 cross border sections of the Core network Corridors	4,71	2,36
11	Core Network - Elimination of Lyon railway bottleneck	153,80	30,76
12	ETCS L2 track-side deployment on 4 sections of the Core Network Corridors	6,85	3,43
13	Modernisation of Med Europe combined transport terminal	13,67	2,73
14	Improvement of multimodal logistics platforms at the port of Marseille for sustainable combined transport in Europe	15,05	1,2
15	Upgrade of combined transport Rotterdam World Gateway terminal	27,95	5,59

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Development of prototypes for the upgrade of vehicles with ETCS SRS2.3.0d on-board equipment to ETCS SRS 3.6.0 - Level 2	6,73	2,40
02	Increasing performance on 4 freight sections on all Core network Corridors in Belgium	64,30	19,29
03	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
04	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
05	Works on the handling of the Mulhouse rail node to improve the North Sea - Mediterranean Corridor	43,96	13,19
06	Line for Airport And Research Area (LARA)	319,49	63,90
07	EuroCap-Rail. Construction of a new section providing a direct link between Luxembourg Station and Bettembourg Station.	56,50	16,95
08	Rotterdam and EU hinterland connection: Theemsweg railway section superstructure.	28,96	8,69

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ORIENT EAST MEDITERRANEAN CORRIDOR



CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE ↗	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Development of Sofia Railway Junction: Sofia - Voluyak Railway Section	104,21	76,07
02	Modernization of the railway section Sofia - Elin Pelin	67,98	57,79
03	ETCS Petrovice u Karviné – Ostrava – Přerov – Břeclav	24,14	20,52
04	Optimization of the line Praha Hostivar – Praha hl.n., 2nd part – Praha Hostivar – Praha hl.n.	134,30	110,31
05	New Kattwyk Railway Bridge – Building of landside Links and Re-construction of the Leading Lights	28,97	8,47
06	Construction of railway infrastructure in section Rododafni (Km 91,5) - Psathopirgos (Km 113) of the new railway line Athens - Patras, part of Orient/East-Med corridor	290,60	141,75
07	Completion of the new, double, high speed, electrified railway line Tithorea-Lianonkladi-Domokos, 106km long	430,33	235,79
08	Connection of the railway line Budapest-Arad to the multi-modal hub at Budapest Airport	17,46	14,84
09	Modernization of the railway section Kostenets – Septemvri	178,26	130,49
10	Reconstruction of the Negrelli Viaduct	47,43	36,65
11	ETCS Kolin - Praha Junction (including)	8,76	5,3
12	Construction of railway infrastructure in section Psathopirgos-Patras(Bozaitika), of axis Athens-Patras, part of OEM Corridor	112,00	78,54
13	Stage 2 of deployment of the GSM-R system on the TEN-T Railway Core Network in Hungary	58,23	49,49
14	Upgrade of the Budapest South Railway Bridge	114,24	97,11
15	Development of Plovdiv Railway Node	103,48	87,96
16	Modernisation of the Čelákovice railway station	29,37	17,37
17	Upgrade of the Lanžhot-SK border railway line	20,91	16,11
18	Upgrade of the Mstětice - Praha-Vysočany railway line	158,30	131,5
19	Upgrade of the Lysá nad Labem - Čelákovice railway line	51,15	42,49
20	TAF/TAP–TSI implementation in Greece: Design and development of scalable TAF/TAP – TSI systems	3,53	2,3
21	Upgrade of the Athens (RS)–Tris Gefires railway section	56,28	40,36
22	Removing selected bottlenecks on pre-identified sections of the Core Network Corridors	191,42	38,28

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Modernization of Traction Substations Vratsa and Pernik located on the Orient/East-Med Core Network Corridor	14,34	12,19
02	Deployment of on-board ETCS in selected prototypes	18,73	6,30
03	Modernization of the Pardubice Railway Junction	148,15	125,93
04	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
05	Improvement of the cross-border railway line between Czech Republic and Germany	40,77	8,15
06	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
07	Elimination of bottlenecks and improving cross-border interoperability between Budapest and Hegyeshalom (- Vienna)	55,41	47,10

* The projects highlighted in light blue are related to mobile assets, such as rolling stock and on-board equipment and are not shown on the map

RHINE ALPINE CORRIDOR

CEF RAILWAYS PROJECTS SINCE 2014

12 Projects

4 Member States

1.572 M € Total Investments

592 M € CEF Support

NEW CEF RAILWAYS PROJECTS IN 2020

9 Projects

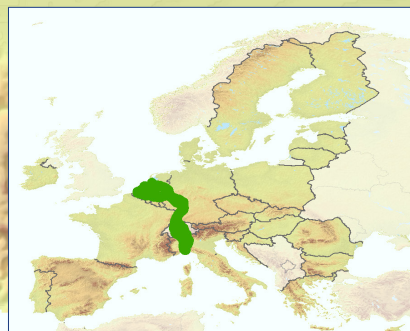
5 Member States

534 M € Total Investments

169 M € CEF Support

- CEF Railways Projects since 2014
- New CEF Railways Projects in 2020
- Railways

TENtec



CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE ↗	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Deployment of ETCS Level 1 on the rail section Ans - Angleur	4,74	2,37
02	ERTMS Deployment on the German part of the Core Network Corridor Rhine - Alpine	109,23	51,67
03	Upgraded line / New-build line (ABS/NBS) Karlsruhe - Basel with partial upgrade measures on the existing line	828,61	315,25
04	Upgraded line (ABS) (Amsterdam) D/NL border - Emmerich - Oberhausen	67,48	25,88
05	ERTMS Deployment on the Italian part of the Rhine - Alpine Core Network Corridor	27,38	13,69
06	Upgrading of the Chiasso - Milano railway line	135,79	40,9
07	Removing the bottleneck on the rail freight corridor between mainport Rotterdam and the European hinterland by realising the Theemsweg railway section.	199,64	59,89
08	Design and equipment of ERTMS for six border crossing corridor sections as well as two gap closings on German TEN core network corridors	51,74	17,52
09	2EUStates2cross	71,70	28,68
10	ERTMS on strategic sections of 3 CNCs	54,50	27,25
11	ETCS L2 track-side deployment on 4 sections of the Core Network Corridors	6,85	3,43
12	Technological migration of the tunnel safety systems of the North-South railway tunnel in Antwerp	14,48	5,79

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Development of prototypes for the upgrade of vehicles with ETCS SRS2.3.0d on-board equipment to ETCS SRS 3.6.0 - Level 2	6,73	2,40
02	Increasing performance on 4 freight sections on all Core network Corridors in Belgium	64,30	19,29
03	Increasing the capacity on CNC Rhine-Alpine and North Sea Med by adding a 3rd and 4th track between Bruges and Ghent	105,49	31,65
04	ERTMS prototyping for TRAXX MS2 and TRAXX AC3 locomotives	7,56	2,70
05	ABS Grenze D/NL - Emmerich - Oberhausen Baustufe 4	55,93	22,37
06	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
07	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
08	MXP-NLINE	211,34	63,40
09	Rotterdam and EU hinterland connection: Theemsweg railway section superstructure.	28,96	8,69

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SCANDINAVIAN MEDITERRANEAN CORRIDOR



CEF RAILWAYS PROJECTS SINCE 2014

10 Projects
5 Member States
4.694 M € Total Investments
1.723 M € CEF Support

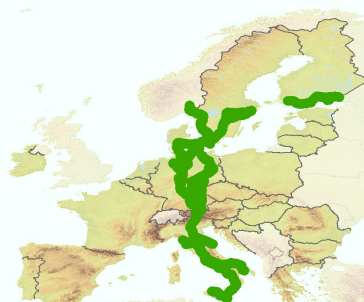
NEW CEF RAILWAYS PROJECTS IN 2020

7 Projects
4 Member States
380 M € Total Investments
119 M € CEF Support



- CEF Railways Projects since 2014
- New CEF Railways Projects in 2020
- Railways

TENtec



CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE ↗	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	New Kattwyk Railway Bridge – Building of landside Links and Re-construction of the Leading Lights	28,97	8,47
2	ERTMS Trackside deployment along the section Copenhagen H – Køge Nord – Ringsted in East Denmark	22,00	7,8
3	Brenner Base Tunnel - Works	2196,60	878,64
4	The Fehmarnbelt Tunnel - The fixed rail link between Scandinavia and Germany	1472,50	589
5	The freight line through Bergslagen. Hallsberg - Degerön, section Stenkumla - Dunsjö	42,01	12,59
6	Design and equipment of ERTMS for six border crossing corridor sections as well as two gap closings on German TEN core network corridors	51,74	17,52
7	ERTMS trackside equipment on Italian sections of the ERTMS/Core Network Corridors in compliance with the Breakthrough Program	91,42	45,71
8	Implementing the Scan-Med Corridor - upgrading the Danish railway access line to the Fehmarnbelt tunnel (Phase 1)	587,56	117,51
9	Gothenburg Port Line - removal of bottleneck finalizing up-grade to double track	182,00	36,41
10	ERTMS deployment on the SCANMED Corridor (Verona – Bologna section)	18,94	9,47

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
01	Investing in the ETCS on-board deployment for interoperable freight traffic along the Scan-Med Corridor	5,02	1,80
02	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
03	Establishment of the New Storstrøm Bridge - works	141,80	42,54
04	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
05	Removal of a major bottleneck between Flackarp and Arlöv on the Swedish Southern Main Line.	78,80	23,64
06	ERTMS On-board prototyping in Sweden 2020-2023	27,49	9,70
07	The West Link - Kvarnberget railway tunnel	73,69	22,11

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RHINE DANUBE CORRIDOR


CEF RAILWAYS PROJECTS SINCE 2014

27 Projects
6 Member States
7.237 M € Total Investments
2.776 M € CEF Support

NEW CEF RAILWAYS PROJECTS IN 2020

9 Projects
5 Member States
618 M € Total Investments
364 M € CEF Support



No.	PROPOSAL TITLE 	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	Upgrading of the Freilassing – D/A border - Salzburg section of the TEN core network corridor Rhine – Danube	36,85	14,74
2	Upgraded line / New-build line (ABS/NBS) Karlsruhe - Basel with partial upgrade measures on the existing line	828,61	163,93
3	THE REHABILITATION OF THE BRASOV – SIMERIA RAILWAY COMPONENT OF THE RHIN - DANUBE CORRIDOR, FOR CIRCULATION WITH MAXIMUM SPEEDs OF 160 KM/H; SECTION: BRA-SOV – SIGHISOARA. SUBSECTIONS: 1. BRASOV – APATA and 3. CATA – SIGHISOARA.	797,34	415,22
4	Connection of the railway line Budapest-Arad to the multi-modal hub at Budapest Airport	17,46	14,84
5	ERTMS Deployment on the German part of the Core Network Corridor Rhine - Alpine	109,23	9,13
6	Junction Plzen, 3rd construction - transposition of the Domazlice line	49,92	35,76
7	Junction Plzen, 2nd construction - reconstruction of passenger station, including bridges Mikulasska	41,85	22,61
8	Optimization of the line Beroun (incl.) – Kraluv Dvur	72,73	54,95
9	Upgrade and new build of Stuttgart-Wendlingen line, including Stuttgart 21	1981,39	589,98
10	New-build line Wendlingen-Ulm	1442,90	432,87
11	ETCS Beroun-Plzeň-Cheb	31,94	27,15
12	ETCS Prerov - Ceska Trebova	13,99	11,89
13	Stage 2 of deployment of the GSM-R system on the TEN-T Railway Core Network in Hungary	58,23	8,41
14	Upgrade of the Budapest South Railway Bridge	114,24	97,11
15	Rehabilitation of the Braşov – Sighisoara railway section, sub-section Apaţa – Caţa	538,30	372,14
16	Upgrade of the Praha Smíchov - Černošice railway line	128,90	97,40
17	Upgrade of the Valašské Meziříčí - Hustopeče nad Bečvou railway line	55,07	46,30
18	Modernisation of Cheb railway station	18,39	15,35
19	Design and equipment of ERTMS for six border crossing corridor sections as well as two gap closings on German TEN core network corridors	51,74	1,25
20	Modernisation of selected sections of the railway line Pardubice -Česká Třebová	17,10	10,29
21	Implementation of GSM-R into ŽSR infrastucture, section of Varín - Košice - Čierna nad Tisou state border	29,54	25,11
22	Modernisation of the Čelákovice railway station	29,37	17,37
23	Upgrade of the Přerov railway junction, phase 2	42,36	33,14
24	Upgrade of the Lysá nad Labem - Čelákovice railway line	51,15	42,49
25	Upgrade of the Mstětice - Praha-Vysočany railway line	158,30	131,50
26	Removing selected bottlenecks on pre-identified sections of the Core Network Corridors	191,42	19,14
27	Upgrading and electrification from Vienna Stadlau to the Slovakian Border near Marchegg (bottleneck removal)	328,77	65,75

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	Deployment of on-board ETCS in selected prototypes	18,73	6,30
2	Junction Prerov, 2nd construction - Technologies and selected infrastructure	68,68	57,32
3	Modernization of the Pardubice Railway Junction	148,15	125,93
4	ERTMS prototyping for TRAXX MS2 and TRAXX AC3 locomotives	7,56	2,70
5	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
6	Upgrade and new build of Stuttgart-Wendlingen line, including Stuttgart 21 - Action PFA 1.3a und PFA 1.4	214,85	64,45
7	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
8	Modernization of the railway line Bucuresti Nord - International Airport Henri Coanda Bucuresti	59,21	48,37
9	ŽSR, Modernisation of the corridor, state border CZ/SK - Cadca - Krásno nad Kysucou (outside), railway line, stage 3	46,92	39,88

**The projects highlighted in light blue are related to mobile assets, such as rolling stock and on-board equipment and are not shown on the map*

NORTH SEA-BALTIC CORRIDOR



- CEF Railways Projects since 2014
- New CEF Railways Projects in 2020
- Railways

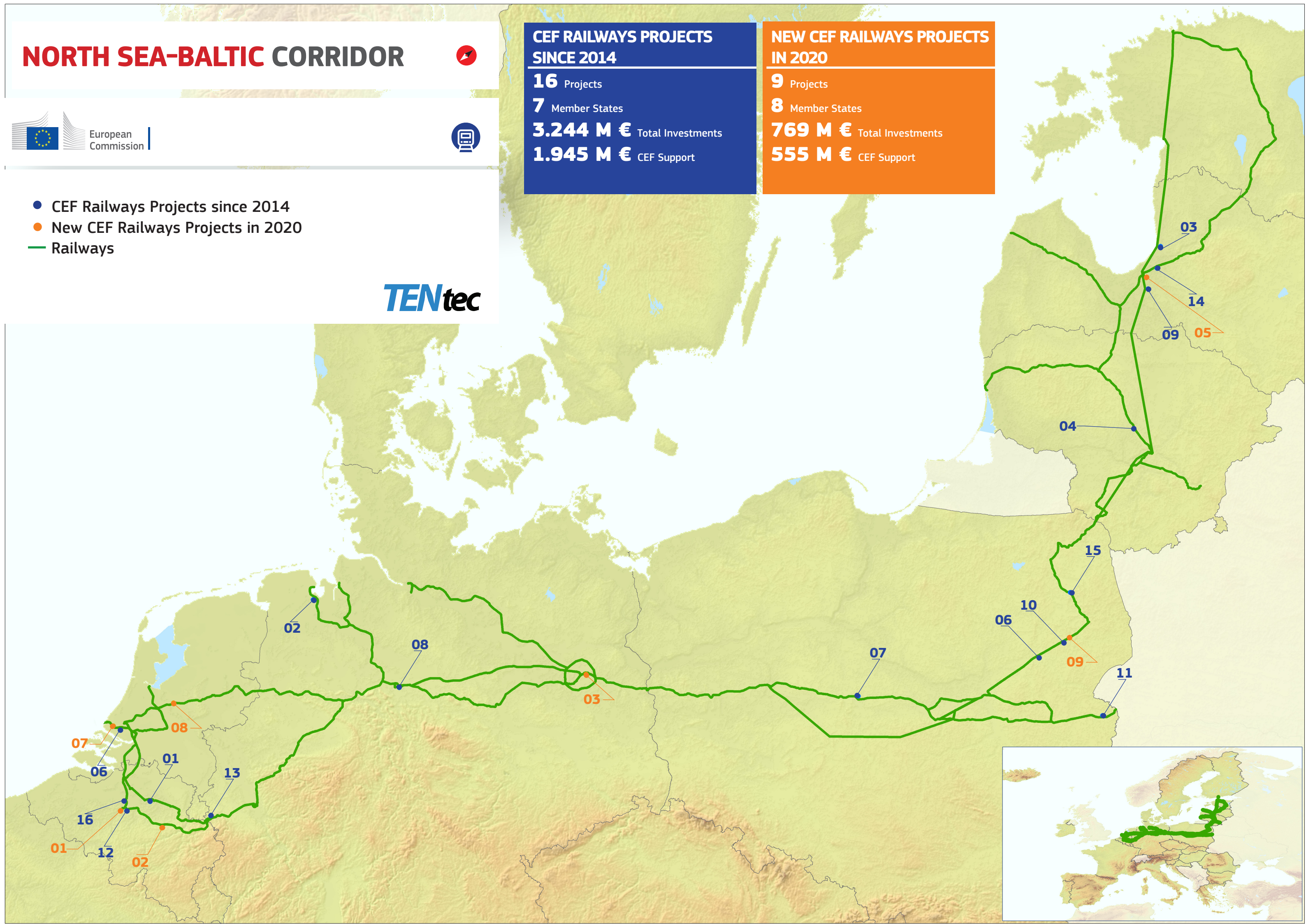
TENtec

CEF RAILWAYS PROJECTS SINCE 2014

16 Projects
7 Member States
3.244 M € Total Investments
1.945 M € CEF Support

NEW CEF RAILWAYS PROJECTS IN 2020

9 Projects
8 Member States
769 M € Total Investments
555 M € CEF Support



CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE ↗	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	Deployment of ETCS Level 1 on the rail section Ans - Angleur	4,74	2,37
2	Upgraded Line Oldenburg – Wilhelmshaven with electrification, track and subsurface strengthening and construction of new subsections	100,10	35,13
3	Development of a 1435 mm standard gauge railway line in the Rail Baltic/Rail Baltica (RB) corridor through Estonia, Latvia and Lithuania	540,43	442,24
4	Bridging the missing links of the Rail Baltic/Rail Baltica EU gauge railway on line Polish and Lithuanian state border - Kaunas and preparation for the development of the EU gauge railway line Kaunas - Lithuanian and Latvian state border	124,59	75,45
5	Removing the bottleneck on the rail freight corridor between mainport Rotterdam and the European hinterland by realising the Theemsweg railway section.	199,64	59,89
6	Works on the E75 railway line Sadowne – Czyżew section, along with the remaining works on the Warszawa Rembertów - Sadowne section	244,02	179,21
7	Works on the E 20 railway line, Warsaw – Poznań section – remaining works, Sochaczew – Swarzędz section	614,31	347,82
8	Design and equipment of ERTMS for six border crossing corridor sections as well as two gap closings on German TEN core network corridors	51,74	17,52
9	Development of a 1435 mm standard gauge railway line in the Rail Baltic/Rail Baltica (RB) corridor through Estonia, Latvia and Lithuania (Part II)	224,99	130,19
10	Works on the E75 railway line, Czyżew - Białystok section	397,38	283,25
11	Works on the E 20 railway line, Siedlce - Terespol section, stage III - LCS Terespol	131,01	84,51
12	ETCS L2 track-side deployment on 2 cross border sections of the Core network Corridors	4,71	2,36
13	2EUStates2cross	71,70	28,68
14	Rail Baltica - 1435 mm standard gauge railway line development in Estonia, Latvia and Lithuania (Part III)	129,97	110,47
15	Works on the E75 railway line, Białystok – Suwałki – Trakiszki (state border) section, Stage I Białystok - Elk section	398,04	142,14
16	ETCS L2 track-side deployment on 4 sections of the Core Network Corridors	6,85	3,43

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	Development of prototypes for the upgrade of vehicles with ETCS SRS2.3.0d on-board equipment to ETCS SRS 3.6.0 - Level 2	6,73	2,40
2	Increasing performance on 4 freight sections on all Core network Corridors in Belgium	64,30	19,29
3	ERTMS prototyping for TRAXX MS2 and TRAXX AC3 locomotives	7,56	2,70
4	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
5	Rail Baltica - 1435 mm standard gauge railway line development in Estonia, Latvia and Lithuania (Part V)	128,12	108,90
6	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
7	Rotterdam and EU hinterland connection: Theemsweg railway section superstructure.	28,96	8,69
8	Upgrading Amersfoort East side rail yard on the pre-identified core North Sea Baltic section	26,54	7,96
9	Works on the E75 railway line, Czyzew-Białystok section (phase II)	453,79	385,72

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MEDITERRANEAN CORRIDOR



CEF RAILWAYS PROJECTS SINCE 2014

25 Projects

6 Member States

5.017 M € Total Investments

2.464 M € CEF Support

NEW CEF RAILWAYS PROJECTS IN 2020

6 Projects

5 Member States

459 M € Total Investments

153 M € CEF Support

CEF RAILWAYS PROJECTS SINCE 2014

No.	PROPOSAL TITLE ↗	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
2	MEDITERRANEAN CORRIDOR. SECTION VALENCIA - TARRAGONA – BARCELONA. IMPLEMENTATION OF UIC GAUGE (PHASE 1)	311,23	100,83
3	ERTMS DEPLOYMENT ON BARCELONA COMMUTER LINES	10,40	5,2
4	Upgrade of Spanish High Speed Lines to version 2.3.0.d. of ERTMS (ETCS+GSMR) 2nd Phase	8,38	4,19
5	ATLANTIC CORRIDOR. SUPPLY, ELECTRICAL FACILITIES AND ACOUSTIC WORKS ON THE SECTION CHAMARTÍN-ATOCHA-TORREJÓN DE VELASCO OF THE HSRL MADRID-LISBOA AND MADRID-BOBADILLA	38,16	9,91
6	Cross Border Section of the New Lyon-Turin Rail Link Mont Cenis Base Tunnel (TBM)	1915,05	813,78
7	Upgrading the Kelenföld-Pusztaszabolcs railway line, Stage I (Upgrading the Kelenföld-Százhalombatta section and installation of ETCS level 2)	160,98	136,83
8	Connection of the railway line Budapest-Arad to the multi-modal hub at Budapest Airport	17,46	14,84
9	ERTMS Deployment on the Italian part of the Rhine - Alpine Core Network Corridor	27,38	13,69
10	Bottleneck rehabilitation in the area of Bivje on the Divača–Koper railway line	24,19	14,19
11	Upgrading of the railway line Poljčane - Slovenska Bistrica	42,14	11,94
12	Core Network - Lyon urban node - elimination of the railway bottleneck	20,88	5,58
13	Upgrade of existing and construction of second track on the Křiževci - Koprivnica - state border railway line section	283,94	241,35
14	Upgrade of the Százhalombatta - Pusztaszabolcs railway section, including installation of ETCS Level 2	272,40	231,54
15	Stage 2 of deployment of the GSM-R system on the TEN-T Railway Core Network in Hungary	58,23	49,49
16	Upgrade of the Budapest South Railway Bridge	114,24	97,11
17	Upgrade of the Budapest, Rákos – Hatvan railway section, including installation of ETCS Level 2	350,10	297,59
18	ERTMS trackside equipment on Italian sections of the ERTMS/Core Network Corridors in compliance with the Breakthrough Program	91,42	47,71
19	Deployment of ERTMS/ETCS on the Dobova-Zidani Most and Pragersko-Maribor-Šentilj railway lines	7,50	6,37
20	Upgrade of the Zidani Most - Celje railway line	158,63	90,58
21	Lyon urban node – Elimination of the railway bottleneck (preparatory works)	13,95	2,8
22	ERTMS on strategic sections of 3 CNCs	54,50	27,25
23	Second track “Divača-Koper” – Surveys, executive design, construction of access roads and structures for bridging Glinščica Valley	52,16	44,34
24	Implementation of UIC gauge in Mediterranean Corridor. Section Castellbisbal- NudoVilaseca	284,96	56,99
25	Core Network - Elimination of Lyon railway bottleneck	153,80	30,76
26	Second track “Divača-Koper” – Construction of tunnels T1-T7	545,13	109,03

NEW CEF RAILWAY PROJECTS IN 2020

No.	PROPOSAL TITLE	INVESTMENT COSTS (M EURO)	CEF FUNDING (M EURO)
1	On-board deployment of ETCS Baseline 3 for Siemens locomotives operating on the TEN-T	32,64	11,55
2	Mediterranean Corridor. Section Valencia-Sagunto-Castellón. Implementation of UIC gauge. Phase 2.	103,76	41,50
3	Development of 12 ERTMS Baseline 3 prototypes for the improvement of rail interoperability on 9 TEN-T Corridors	20,86	7,35
4	Improvement of railway infrastructure-establishment of monitoring systems for safety, security and technical controls	17,07	14,51
5	MXP-NLINE	211,34	63,40
6	RAIL-TO-AIR - Enhancing the RAIL interconnection between TORino urban node, AIRport and related hinterland	73,24	14,65

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