European Commission

CEF support to

Rhine – Danube Corridor

May 2020

Innovation and Networks Executive Agency

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1. Introduction

The Rhine-Danube Core Network Corridor is the transport backbone linking Central and South-Eastern Europe. Running from the Strasbourg area and South-West Germany to the Romanian ports of the Black Sea and the Slovak-Ukrainian border (in two distinct branches), it comprises intermediate sections in nine Member States, and connects them to neighbouring countries Serbia, Bosnia-Herzegovina, Moldova and Ukraine. Except for France, Germany and Austria, the other six Member States (Czech Republic, Slovakia, Hungary, Croatia, Bulgaria and Romania) have also access to the ESIF Fund. Several segments of the Rhine-Danube Core Network Corridor are shared with the Orient-East Med Corridor. The Corridor includes around 5,800 km of rail network, 4,500 km of roads and 3,900 km of waterways.

Since the adoption of the first Rhine-Danube Core Network Corridor Work Plan in 2014, in line with the TEN-T and CEF Regulations, the European Coordinator Ms Karla Peijs has taken concrete steps to define the main work priority areas and facilitate the establishment of a truly multi-modal and seamless transport Corridor by 2030.

So far, 232 projects have been completed on the Corridor, for an overall cost of € 14 billion. By the time of the publication of the latest Work Plan, a total number of 736 projects and global investment needs close to € 100 billion have been identified. The Connecting Europe Facility is an important contributor to the objectives of the Coordinator's Work Plan. The current portfolio of Actions in the Rhine Danube Corridor comprises 101 grant agreements allocating €3.4 billion of CEF Transport funding (corresponding to total investments of €6.9 billion). It is important to note that due to implementation delays, the scope, budget and corresponding CEF funding of certain Actions have been reduced as described further in this report.

CEF Transport funding in the Rhine-Danube corridor concentrates on railway Actions (35 Actions), with an EU contribution of €2.91 billion to date (86% of the total allocated to the Corridor). These Actions are ongoing in all beneficiary countries and address the main priorities highlighted by the Coordinator, including tackling the limitations to the allowed axle loads or access by 740metre long freight convoys, reduced operational speeds and the absence of the European Rail Traffic Management System (ERTMS).

The overall CEF inland waterways (IWW) portfolio amounts to €241.2 million (CEF contribution for 27 Actions). The focus of the Work Plan lies on existing difficulties that limit admissible draughts or hinder the achievement of target fairway depths. Consequently, waterside infrastructure related projects have been at the heart of CEF interventions. However, it has been highlighted by the Coordinator that IWW do not receive the same level of support from all different Member States, which has a clear impact on associated investment decisions.

CEF Actions in the road sector (CEF contribution of €190.8 million for 35 Actions) pertain to cross-border bridges, safe and secure infrastructure (rest and parking areas), innovation (alternative fuels) and Intelligent Transport Systems. These kinds of interventions in the road sectors have been extensively discussed on several occasions between the Coordinator and national, regional and local authorities as well as the relevant stakeholders, in view to identifying the most urgent and indispensable interventions.

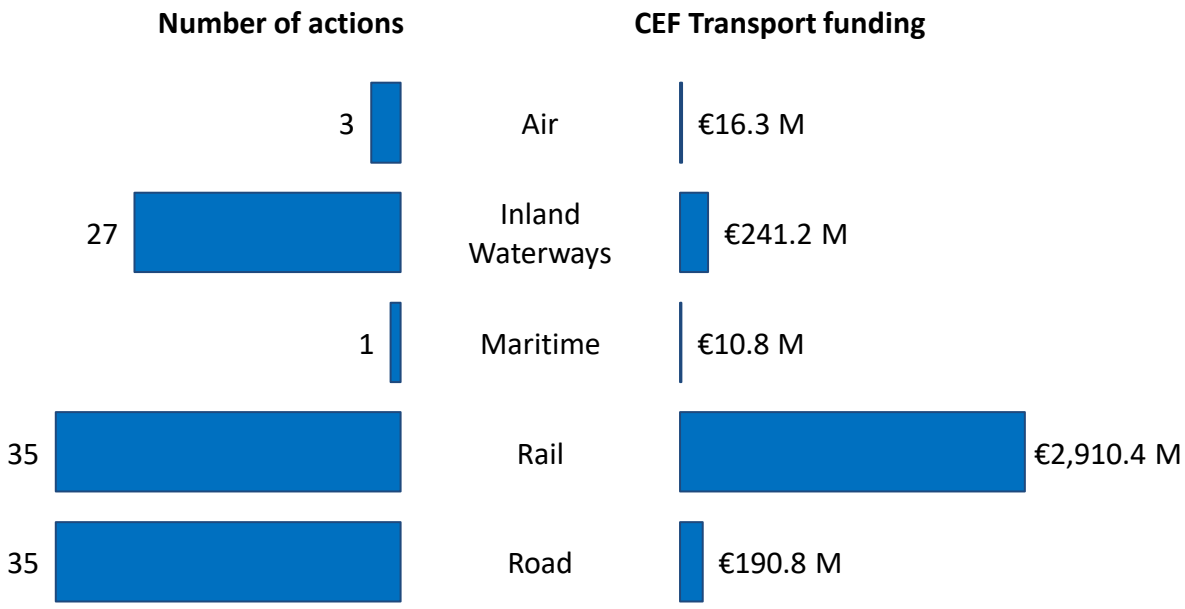
2. Action portfolio: State of play[1]

CEF Transport has so far (2014-2019 calls) funded 794 grants worth €21.1 billion and mobilised a total investment of €45 billion, in all areas and Corridors alike. The current portfolio of Actions in the Rhine Danube Corridor comprises 101 grant agreements[2] allocating €3.4 billion of CEF Transport funding (which represent 13% of the total number of CEF Transport Actions and 16% of the total actual CEF Transport funding). CEF-supported investments (€6.9 billion) cover 6.9% of the total investment needs (€100 billion) outlined in the Rhine-Danube Work Plan. So far, for this Corridor, three grant agreements have been terminated and 9 have been closed.

2.1. Operational Implementation

For the Rhine Danube Corridor, the Core Network Corridor priority (under Funding Objective 1) represents 95% of CEF Transport funding. Other priorities, such as innovation under Funding Objective 2 and ERTMS under Funding Objective 1, also contribute to the development of the Corridor. Due to its location, most of the funding for the Rhine Danube portfolio is coming from the Cohesion envelope. 95% of the grants allocated to this Corridor address pre-identified sections through actions in a single Member State, which, however, have a strong cross-border effect. 76% of the CEF Transport funding is devoted to works Actions. Most of the funding in this Corridor is allocated to sections on the Core TEN-T network (€3.3 billion), while Nodes receive €77 million. See the Statistical Annex for more details[3].

Figure 1: Statistics by transport mode



[1] As of May 2020.

[3] The figures provided in the report this year are based on the latest developments of the reporting system used by INEA. The latter has allowed a more detailed allocation of Actions to many different elements of the TEN-T network thus producing a more accurate picture of the CEF funding. This explains the differences with the figures provided in past years/reports.

2.1.1. Air

The air portfolio in the Rhine Danube Corridor consists of 3 Actions, receiving €16.3 million in CEF Transport funding.

Two Actions in Germany (2014-DE-TM-0105-S and 2015-DE-TM-0426-S) have been successfully completed (receiving €0.6 and 0.9 million respectively). The first study aimed at gathering information on operating the e-buses and fast charging infrastructures to reduce the airport of Stuttgart CO^2 emission. The Action was designed as a real-life pilot deployment of six electric passenger buses (not funded from CEF) and the respective charging infrastructures, including nine fast chargers.

The second study in Germany (2015-DE-TM-0426-S) aimed to deliver the final design for the construction of a second train connection to the airport of Munich ("Erdinger Ringschluss"). The "Erdinger Ringschluss" is a part of a larger project called railway knot Munich ("Bahnknoten München"). This is a concept promoted by the Bavarian government aiming to significantly improve the rail connections to Munich Airport from different parts of Bavaria. This is a follow-up of a TEN-T project (Action 2012-DE-17022-S) which was successfully completed during the previous funding period.

The aim of the Hungarian Action (2014-HU-TMC-0508-W) is to upgrade the existing rail and road freight connections from Budapest airport to the rail and local road network. The permitting procedures have been completed in December 2018. The first of the two works contracts (external road construction) has been signed in May 2019; the second works contract (the internal road) is currently expected to be signed in June 2020. The works are to be completed by September 2021.

2.1.2. Inland Waterways

The inland waterway portfolio in the Rhine Danube Corridor consists of 27 Actions, receiving €241.2 million in CEF Transport funding, which aim at establishing and maintaining a good navigation status along the Danube and the Sava rivers.

As a Corridor Flagship Action, "FAIRway Danube" (2014-EU-TMC-0231-S, 2014-EU-TM-0219-S), is providing on-time harmonised information about the Danube shallow sections and water levels, identifying priority measures and to implement large scale work measures to ensure and improve good navigation status along the whole Danube. By end 2019, two-yearly updates of the National Action Plans have been provided. These are extremely useful to both operators and industry as they illustrate the current status of the Danube fairway, the maintenance and the upgrading measures and the dedicated budget that the Member States (beneficiaries of the Actions) are planning to carry out yearly. These plans served as key inputs for the Danube Ministerial Declarations signed in 2012, 2014, 2016 and 2018 and are expected to be signed in 2020. By end June 2020, five new surveying vessels and 17 water-level gauges, were constructed, delivered and installed. This equipment is providing up-to-date fairway information to the shipping sector and the waterway administrations. 4 new multifunctional marking vessels are operating to improve the fairway conditions in all beneficiary countries.

FAIRway Danube CEF Actions results (2014-EU-TM-0219-S/2014-EU-TMC-0231-S) Photos by viadonau

Targeting 6 major bottlenecks, the other CEF-funded IWW projects concentrate mainly on three areas of intervention: upgrade and construction of infrastructure, studies with pilots addressing environmental concerns and the implementation of RIS along the whole Danube.

Several bottlenecks resulting in unreliable, and non–compliant navigation infrastructure are being tackled through works Actions. First, the works for the upgrade of the Gabcikovo lock (2015-SK-TM-0151-W) started in June 2019 and are progressing well for both the right and the left lock chambers. These works are planned to be completed by end 2022. Second, the works for the upgrade of the port of Giurgiu (2014-RO-TMC-0313-W) are very advanced since 90% of the works for the upgrade of the waterside basic infrastructure, the road and rail connections inside the port have been completed. The remaining 10% of works will be completed by September 2020, once the construction of the external part of the trimodal terminal is finalised. Third, the works for the construction of the trimodal terminal are ongoing and are planned to be completed by March 2021. The works for the upgrade of the waterside infrastructure at the port of Galati (2015-RO-TM-0275-W) are expected to start by end of summer 2020. And fourth, along the Sava river, the works for the upgrade of the Slavonski Brod port are ongoing (2016-HR-TMC-0017-W) and are planned to be completed by mid-2021.

Another group of Actions aims at ensuring a long term good navigation status side by side with a good ecological status (GES) along three stretches of the Danube and the Sava rivers: the Romanian-Bulgarian and Hungarian-Slovakian common sections (Actions 2014-HU-TMC-0606-S, 2014-EU-TMC-0297-S and 2016-SK-TMC-0263-S, respectively) as well as the Croatian Sava (2014-HR-TMC-0122-S). The studies and consultations for obtaining the EIA decisions and all other necessary environmental assessments are ongoing in all countries. The first part of the EIA

procedures have been completed and the necessary works permits are expected by end 2021. Civil society and environmental stakeholders have been associated to the implementation of the Actions in all the countries. These studies could be followed by work proposals to be submitted to the CEF2 calls.

Operational bottlenecks are being addressed through RIS-related pilot Actions involving all Danube riparian countries (2014-HU-TM-0619-W and 2015-EU-TM-0036-W, 2015-EU-TM-0036-W). The Actions are extremely advanced in view of promoting more transparent and effective data exchange process and the simplification of complex administrative procedures. By end of 2018 the overall corridor RIS concept and architecture option were approved by the beneficiaries.

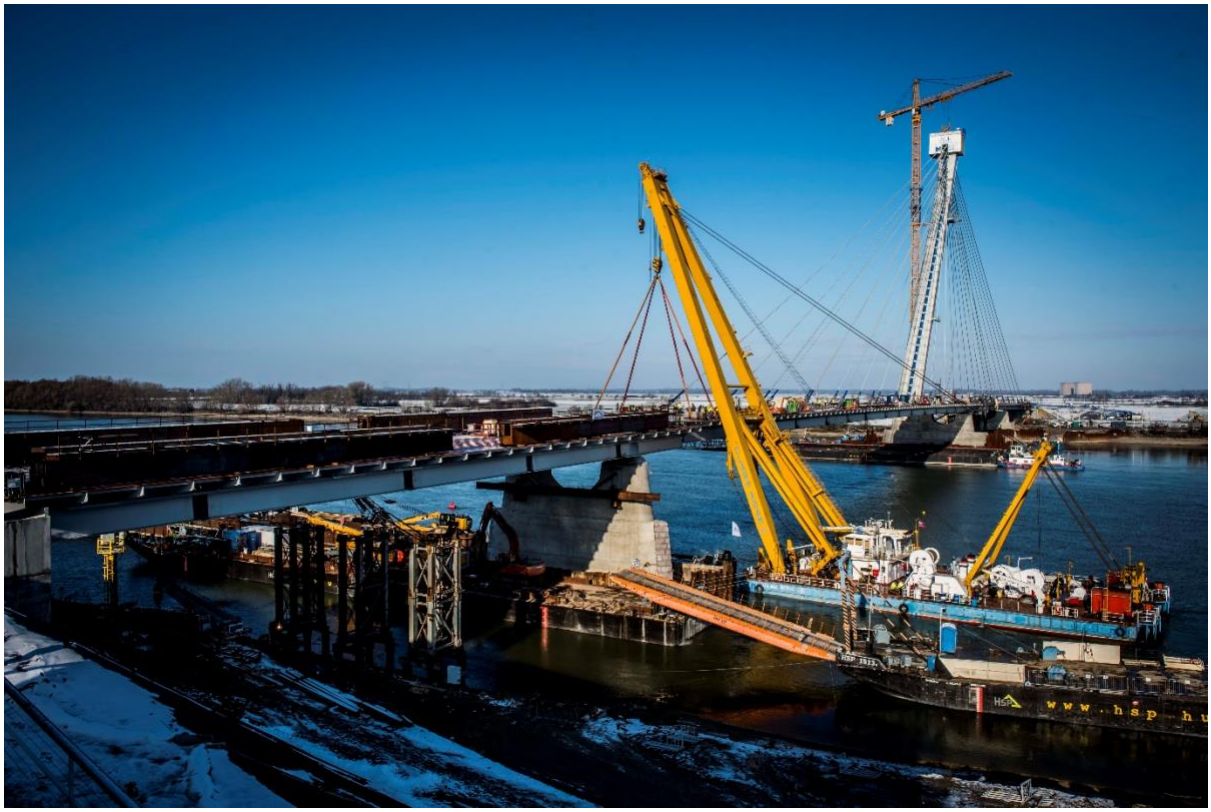
The trimodal terminal in construction at the Port of Giurgiu (2014-RO-TMC-0313-W) Photos by ILR LOGISTICA ROMANIA S.R.L.

Works advancing at the Gabcikovo Locks (2015-SK-TM-0151-W) photos by Vodohospodárska výstavba

2.1.3. Road

The total road portfolio in the Rhine Danube Corridor is composed of 35 Actions receiving €190.8 million in CEF Transport funding. They focus on the implementation of a low-carbon, interoperable as well as safe and secure road network. CEF interventions complement the efforts of national governments to construct and upgrade the existing road network.

This portfolio includes two cross-border road bridges constructed between Slovakia and Hungary on the Danube and Croatia and Bosnia-Herzegovina on the Sava rivers. The cross-border Komarno-Komarom bridge (2014-EU-TMC-0485-W) between Hungary and Slovakia is planned to be completed by end August 2020. This represents a successful cooperation between the two countries, which managed to carry out a joint works procurement process thanks to an intergovernmental agreement signed at the highest political level. The cross-border bridge Svilaj is to be fully completed by summer 2020, with CEF funding the Croatian sector (2015-HR-TM-0390-W). This is also the example of a successful cooperation in view of the extension of the Rhine-Danube Core Network Corridor to the neighbouring countries.



Komarno – Komarom cross-border bridge (2014-EU-TMC-0485-W) photos by the Hungarian Ministry of Innovation and Technology

Out of the 35 CEF Actions selected for this transport mode, 25 include innovation aspects. They receive €58.7 million of CEF funds and target the deployment of alternative fuels infrastructure in line with EU Directive 2014/94/EU. These Actions are expected to install 1,301 supply points for road transport (1,263 electric, 35 LNG+CNG, and 3 H2) along the Rhine Danube Corridor.

The development of the electric vehicle charging network is a priority in most Cohesion countries. Two Actions in particular (2014-EU-TM-0196-S and 2014-EU-TMC-0568-S) delivered a key studies followed by pilots, which consisted in the deployment of 241 multi-standard fast chargers. Among these, 181 have been deployed in Germany and in the 15 in Czech Republic and 14 in Slovakia along several pre-identified sections of the Rhine-Danube Corridor. The studies served to develop best practice solutions regarding Business Models, Intermodality Services and Infrastructure Standards.

Concerning a more integrated strategy for the deployment of alternative fuels and e-mobility, Czech Republic, Hungary and Slovakia are the front-runners along this Corridor. This is reflected in the CEF funded Actions in these Member States. The challenge for e-mobility is to ensure the implementation of a corridor approach while deploying high performance charging stations from Germany to Romania. At urban level, the cities of Bratislava and Budapest have led the way in this respect. Cohesion Member States are reaping the benefits of former pilot projects, building upon consolidated results and accelerating the deployment of mature technologies.

For instance the Action "CNG ROMANIA" (2015-RO-TM-0373-M) aims at deploying an initial network of 9 CNG stations in Romania. Works for the station in Bucharest are ongoing and the procedure for land acquisition in Constanta, Timisoara and Arad has been completed. 6 orders for the delivery of the CNG equipment have been issued and the contracts for electricity and gas supply have been

signed. These works are expected to be completed by end 2021. 11 fast charging stations have been already installed in Romania in the framework of the Action “Comprehensive fast-charging corridor network in South East Europe” (2016-EU-TMC-0344-W).

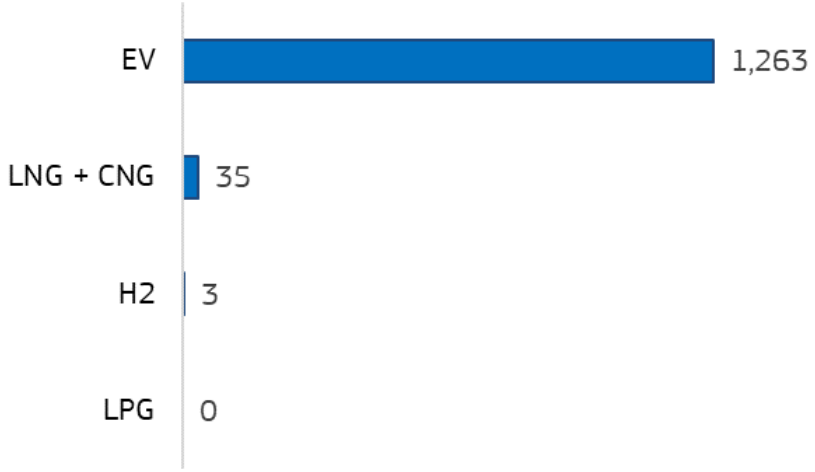
Two CEF interventions in the field of ITS, with a total CEF funding share of €4.9 million, focus on the implementation of the priority actions of EU Directive 2010/40/EU. One of the main challenges for public authorities and road operators in this area is to ensure an efficient cross-border communication among the various Traffic Management Centres. In this regard, the implementation of National Access Points and the use of the DATEX II communication standard have started and are funded by past and ongoing CEF Actions. CEF funding acts as a catalyst for the improvement of the existing road network. In this field, Cohesion countries also benefit from technologies that have been tested and they already started to deploy them. The completed Action 2014-EU-TM-0563-W). facilitated the harmonised and interoperable deployment Corridor level of ITS services, so that the European driver can ultimately travel seamlessly across several Member States.

The construction and the upgrade of safe and secure parking areas on motorways in Germany, Austria, Czech Republic and Romania in compliance with Article 39 of the TEN-T Regulation and requirements of Regulation 885/2013 are the challenges addressed by 4 CEF-funded Actions along this Corridor. 405 rest areas will be upgraded in Czech Republic, Austria and Germany. The Action "Setup and ITS connectivity of safe and secure truck parking areas" (2015-RO-TM-0137-M) completed the upgrade of a safe and secure parking area. This Romanian parking area has been certified with a security and service level 4 by the European Secure Parking Organisation (ESPORG).

As a result of CEF Transport funding in Road actions:

- 822 parking spots are expected to be built or improved in 13 parking areas between Austria, Germany and the Czech Republic
- 1,301 supply points for alternative fuel for road transport are expected to be installed, in detail:

Figure 2: Estimated number of supply points for alternative fuel for road transport

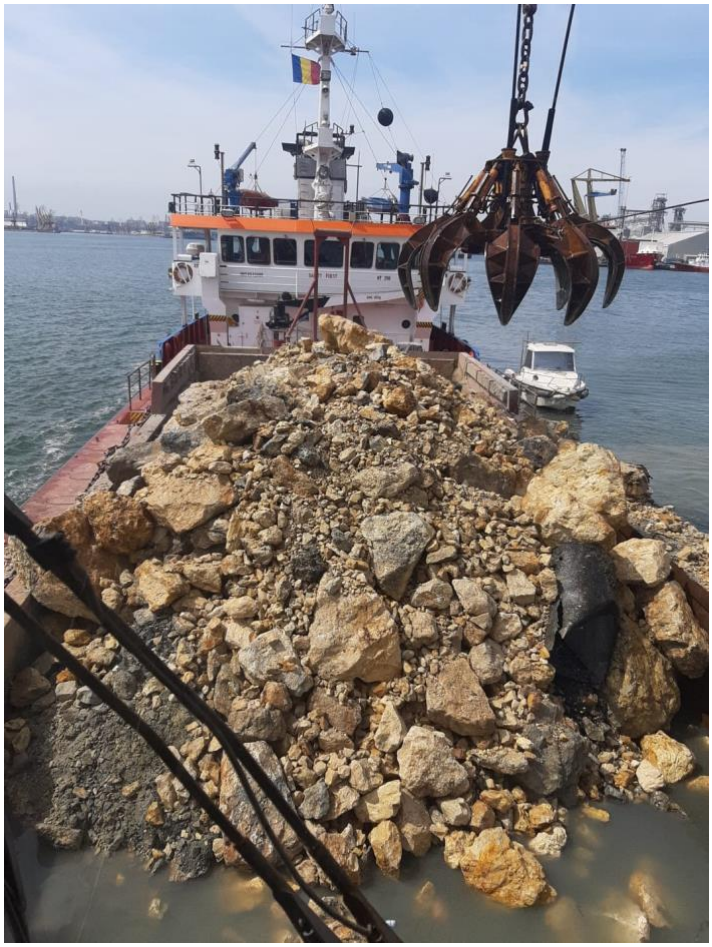



RHINE – DANUBE
CORE NETWORK CORRIDOR
CEF funded Road and Inland Waterway Actions
(excluding ITS, RIS and Innovation)
Sweden
Latvia
Russian Federation
Denmark
Lithuania
Belarus
Poland
Germany
Ukraine
Frankfurt-Main
Czechia
Nurnberg
Regensburg
Slovakia
France
Moldova
Strasbourg
Enns
Austria
Budapest Csepel
Hungary
Galați
Switzerland
Romania
Slovenia
Croatia
Giurgiu
Bosnia and Herzegovina
Serbia
Bulgaria
Montenegro
Italy
North Macedonia
Albania
Turkey
Greece
CEF Actions in Core Ports
CEF Actions on Roads
CEF Actions on Inland Waterways
Rhine-Danube Corridor (road)
Rhine-Danube Corridor (inland waterway)
Cartography: INEA, March 2020
© EC, DG MOVE, TENtec for TEN-T network
© EuroGeographics for the administrative boundaries
0
250
500
km

2.1.4. Maritime

The port of Constanța is the only seaport in the Rhine-Danube Core Network Corridor.

CEF-funded interventions in the port of Constanța (1 Action for €10.8 million), which is already compliant with TEN-T requirements, aim to enhance its capacity by constructing an on-shore ship waste collection facility and to modernise the signalling system in the port basin and fairway (2015-RO-TM-0046-W). The construction works contract was signed beginning 2019. Even if the commencement order was signed November 2019, the works started only in April 2020 due to technical problems. The signalling system has been completed.



Works started at the Constanța Port (2015-RO-TM-0046-W) photos by Compania Nationala Administratia Porturilor Maritime SA Constanta

2.1.5. Rail

The railway portfolio in the Rhine-Danube Corridor includes 35 ongoing Actions receiving an overall CEF Transport funding of €2.91 billion.

These Actions are expected to remove 29 major bottlenecks via the improvement of railway infrastructure, which, in many cases, presents currently a sub-optimal use of capacity and can hinder modal shift and the deployment of ERTMS. The majority of CEF-funded Actions along this Corridor entails basic construction works, or mature studies leading to them, and involve either new construction or the rehabilitation and upgrade of existing infrastructure in line with TEN-T

requirements. Actions targeting railway sections absorb the largest proportion of CEF funds (close to €2.3 billion). Moreover, interventions on several junctions and nodes are receiving a significant support (above €300 million).

The aggregated impact of these Actions on the development of the Corridor can be summarised as follows:

- 230 km of railway lines will have achieved the minimum technical requirements of the TEN-T Regulation in terms of electrification, allowed axle load, line speed and admissibility of 740 metre-long convoys. This represents 3 % of the total rail network of the Corridor. CEF funding addresses key missing links for an effective Corridor implementation.
- 429 km of railway lines will be equipped with ERTMS. This represents 6.79% of the total rail network of the Corridor.

Compared to the 2019 INEA report, there has been a reduction of € 600 million along two pre-identified sections in Germany and Romania: Karlsruhe – Stuttgart – München and Brasov – Sighisoara due to implementation delays. These led to a reduction of the scope of two Actions in Romania and two in Germany as well as of the corresponding CEF funding. The reasons for these delays were twofold. Firstly, the need of organising further consultations with the relevant stakeholders heavily delayed the completion date. Therefore, it was necessary to revise the scope of the works in Germany. These works are now expected to be completed by December 2022. Secondly, the lengthy procurement procedures in most of the cohesion countries hindered the possibility to sign the works' contracts as initially foreseen. Delays between 12 to 36 months heavily affected the implementation of certain key Actions in Romania. This led to the revision of the respective timetable and consequently to the reduction of the scope of these Actions to ensure that the bulk of the works could be completed by December 2022.

It is to be noted that for the German and Austrian part of the Corridor, although 91% of the rail infrastructure is compliant with the TEN-T parameters, operational bottlenecks, such as restricted capacity, and lengthy cross-border procurement procedures, still have to be addressed. The CEF contribution to the four railway Actions located in the Karlsruhe – Stuttgart – München pre-identified section (2014-DE-TM-0094-M; 2014-DE-TM-0163-W, in Stuttgart-Wendlingen; 2014-DE-TM-0166-W, in Wendlingen-Ulm; and 2014-EU-TM-0267-W, in Freilassing-Salzburg), amounts to €1 billion. These works will alleviate freight traffic congestion and improve the operational speed of passenger trains up to 250 km/h. Several key achievements have been reached within these Actions by end 2019. The Albvorlandtunnel has been completed and the third rail track on the cross-border Saalach Bridge was officially inaugurated in December 2017. The Fildertunnerl and the Steinbühltunnel were completed by end 2019.

The Fildertunnerl was completed by end 2019 (2014-DE-TM-0163-W) photos by Deutsche Bahn

The Rhine-Danube Corridor railway portfolio in the Czech Republic (16 CEF funded Actions for an overall funding of €594 million) encompasses the upgrade of the pre-identified section Munich/Nűrnberg – Prague and, in particular, the Plzen and Cheb railway junctions, the Plzeň-Domažlice cross-border line, as well as several sections between Plzeň and Prague. These Actions are in general progressing well. The implementation delays range from 12 to 24 months and are usually caused by lengthy permitting procedures. One Action related to the reconstruction of the Čelákovice railway station has been completed in July 2019. Two Actions addressing upgrade of Plzeň railway junction are to be completed by December 2020.

Works completed for the CEF Action 2016-CZ-TMC-0014-W photos by Správa železnic, státní organizace

The Rhine-Danube Corridor railway portfolio in Romania (4 CEF funded Actions for an overall funding of € 793 million) is key to upgrade the pre-identified sections of Arad – Brașov – București – Constanța. The works Actions ("Braşov – Apaţa and Caţa – Sighișoara" - 2014-RO-TMC-0639-W, "Apaţa – Caţa" - 2015-RO-TM-0362-W) will rehabilitate and upgrade the existing railway line between Braşov and the Hungarian-Romanian border. The duration of both Actions has been extended by 24 months until 31/12/2022 with a revised scope. While the construction work contract for Action 2014-RO-TMC-0639-W was signed in March 2020, the tender for Action 2015-RO-TM-0362-W is still ongoing.

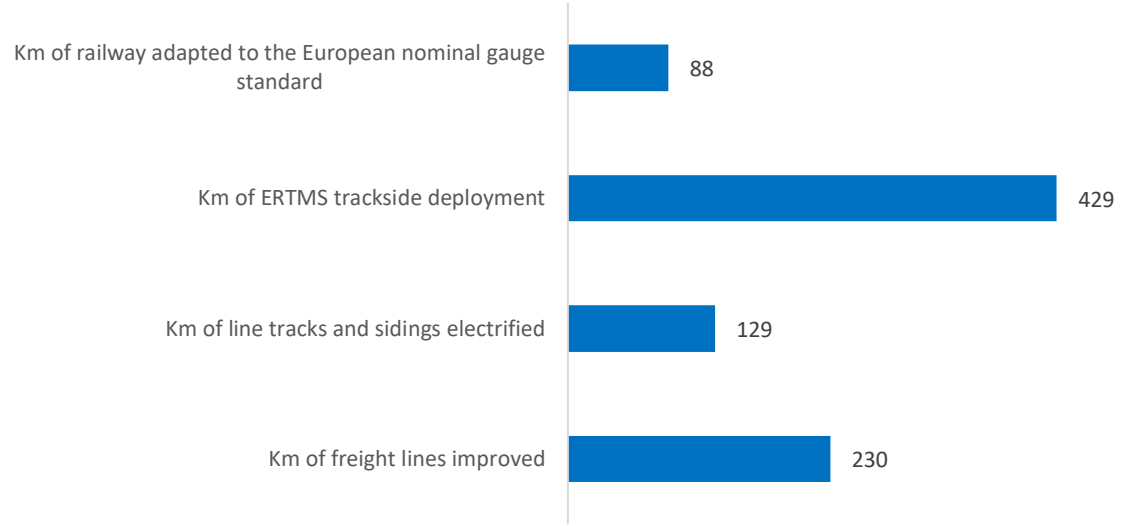
The study Actions "Constanţa Port" - 2016-RO-TMC-0248-S and Predeal – Brasov" (2016-RO-TMC-0076-S) aim to deliver the feasibility study and detailed design for the construction works to improve Constanţa port's railway connection to the TEN-T Core Network and respectively for the rehabilitating and upgrading of the section between Predeal and Brasov. While the service contract for "Constanţa Port" was signed in 2019 and is currently running, for "Predeal – Brasov" the tendering phase is still ongoing.

The deployment of trackside and on-board ERTMS is an important pillar of rail interoperability and is therefore crucial for the efficiency of the railway corridor. At the moment, this issue is being addressed by 6 Actions, independently or combined with construction measures, in both Cohesion and non-Cohesion Member States. The total CEF-Transport contribution to them nears €80 million.

Finally, CEF is also supporting measures to streamline operations, (as mentioned in cross-border issues in section 3.2) through a Programme Support Action to Rail Freight Corridor 9 Rhine-Danube (RFC9). The CEF grant will contribute to the establishment of the RFC9 in line with the existing EU Regulation in force.

As a result of CEF Transport funding in Rail actions, a number of km of railway lines is expected to be improved, in detail:

Figure 3: Improved railway lines (number of km)



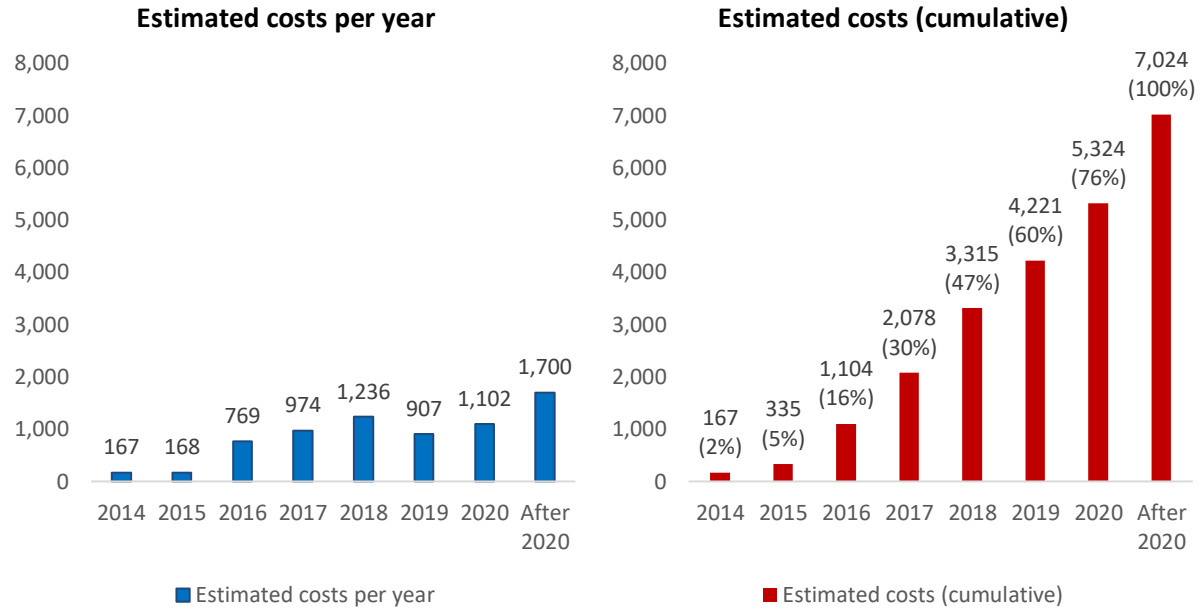

RHINE – DANUBE
CORE NETWORK CORRIDOR
CEF funded Rail and Maritime Actions
(excluding ERTMS)
Sweden
Latvia
Russian Federation
Denmark
Lithuania
Belarus
Germany
Poland
Ukraine
Frankfurt am Main
Praha
Ostrava
Czechia
Nürnberg
Slovakia
France
Stuttgart
Moldova
Strasbourg
München
Wien
Bratislava
Budapest
Austria
Hungary
Switzerland
Romania
Timişoara
Slovenia
Croatia
București
Constanța
Bosnia and Herzegovina
Serbia
Bulgaria
Montenegro
Italy
North Macedonia
Albania
Turkey
Greece
Urban Nodes
CEF Actions in Core Airports
CEF Actions in Core Ports
CEF Actions on Railways
Rhine-Danube Corridor (rail)
Cartography: INEA, March 2020
© EC, DG MOVE, TENtec for TEN-T network
© EuroGeographics for the administrative boundaries
0
250
500
km

2.2. Financial Progress

CEF Transport funding for actions in the Rhine Danube Corridor was initially[4] €3.8 billion, corresponding to €7.4 billion in eligible costs. Following amendments and closures, the actual funding going to this Corridor is €3.4 billion, corresponding to €6.9 billion in eligible costs. It is important to note that the major part of the reductions is re-injected in the 2019 CEF Transport calls.

When taking into account the latest information available[5], the costs necessary to implement CEF Transport actions are estimated at €7 billion[6]. The below figures give an overview of the respective financial progress (in terms of estimated costs) of the overall Corridor portfolio. By the end of 2019 the financial progress reached was 60%.

Figure 4: Estimated budget implementation (€ million)



Whilst the above financial progress charts are based on cost estimates provided by the beneficiaries (updated annually in action status reports), the budgetary absorption of the allocated funding can also be analysed by assessing the payments made and interim/final costs claims processed. In fact, out of the €3.4 billion of CEF Transport funding:

- 46% or €1.6 billion has already been paid (including pre-financing)
- 31% or €1.1 billion of contribution has already been accepted (following the introduction of interim/final cost claims by beneficiaries).

[4] i.e. grant agreement signature stage
[5] i.e. action status reports and received but not yet approved final payment claims.
[6] Higher estimated costs with respect to the initial or actual eligible costs are typically due to cost overruns reported in the ASRs.

3. Challenges affecting the implementation of actions

The vast majority of CEF Actions on the Rhine-Danube Corridor are ongoing. Out of the 101 Grant Agreements, 9 have been closed (i.e. final report submitted and final payment processed), and 3 have been terminated.

A number of issues are affecting the timely implementation of some of the Actions above. In many instances, they are recurrent. The most common ones are presented below.

- While aiming at simplifying public procurement procedures and making them more flexible, the 2014 EU public procurement Directive has triggered significant changes in national procurement legislation. As a result, beneficiaries were obliged to adopt new internal practices and, in some cases, to resort to additional legal advice and expertise. These changes, often combined with complex administrative processes, have lengthened the duration of tender procedures, in all sectors and across Member States. Besides, in some Member States an additional ex-ante control by national authorities has been introduced at the end of the procurement procedure, prior to contract signature. As a result of all this, the start of the works phase of many Actions has been postponed. Small Actions in the fields of innovation and inland waterways suffered limited delays alleviated by the contingency plans that they included. On the other hand, the bulk of the railway Actions sees major delays between 6 months and 2 years especially in the Cohesion countries.

- The implementation of certain Actions has suffered because of the lack of adequate staff throughout the implementation of the Action from preparatory phases (technical designs, permitting procedures and public procurement) to its completion.
- Land acquisition procedures are very lengthy in the Cohesion countries. Expropriation procedures have, in several cases, held back the progress of a number of railway Actions.
- In a context where environmental issues can lead to important delays, one of the major results of the first years of CEF programme implementation in the field of IWW has been the achievement of a sound cooperation between various stakeholders, including environmental groups, thus adopting an integrative and more robust approach to each Action. In the railway sector, some of the Actions in Germany have been subject to lengthy public consultations concerning flood risk assessments, as well as the need to address noise issues through the implementation of noise protection measures beyond the required regulatory standard. However, in spite of having caused some delays they are the result of an enhanced integrative approach which helped increase acceptance at local and national levels.

- Some of the main work interventions face costs overruns, resulting from bids that were higher than the initial tender price estimates. As a result, new financial commitments by the concerned governments or the revision of existing designs are required. These changes delay further the start of the Actions. In this situation, the availability of sufficient national budgets and the adequate allocation of experts following the new procurement rules represent two important challenges that need to be addressed in order to facilitate the overall implementation of the Actions.

4. Conclusion and Outlook

As outlined in this report, CEF-funded Actions have increasingly contributed to the removal of key bottlenecks along the Corridor in line with the objectives and priority areas defined by the European Coordinator, Karla Peijs, in the latest Work Plan.

Compared to the 2019 report, key results have been achieved in the rail sector in particular in Austria, Germany, Czech Republic and Romania. Once completed, these railway lines will be fully compliant with the TEN-T key parameters. These will allow an optimal utilisation of the freight lines to reach the goal of an efficient and sustainable single European transport area. The support of the Coordinator and the efficient cooperation between INEA and DG MOVE were key in supporting Member States and railway undertakings for the smooth implementation of the Action.

In the field of IWW, CEF Actions have already tackled the main environmental issues, paving the way for the subsequent start of large scale infrastructure works along the Sava and Danube rivers. CEF cross-border EU actions proved that multi-country cooperation is key to move forward and achieve results that a Member State will not be able to achieve on its own. Joint tenders managed by one Member State for a cross-border river section are much more efficient in terms of time and costs savings. These studies and works only partially address administrative barriers, which will still hinder navigation on the Danube and the Sava namely: staff shortage for customs controls, non-transparent and inconsistent charging policies along the Danube, information gaps and too many non-standardised documents, among others.

According to the current situation, only 5% of the overall CEF funding is allocated to innovation and alternative fuels. A high proportion of innovative Actions involve cooperation between countries. This is essential to ensure a corridor approach with regards to innovation. The supply of alternative fuels along the Corridor is steadily increasing.

The involvement of private companies, not only from the country where the Actions are located but also from other parts of the Corridor, has proven to be extremely beneficial for the successful completion of the Actions as it facilitates the preparation of the technical specifications for the tenders for the construction works and the smooth implementation of the Action from a technical point of view. Successful experiences in that respect can be found in Giurgiu, Vienna and Bratislava.

Therefore, it is worth mentioning that the investment in the infrastructure should be combined with additional measures to facilitate smooth cross-border flows in operational terms. The recent CEF funded Programme Support Action for the establishment of the RFC 9 Rhine-Danube aims at addressing operational issues for improving the overall performance of the rail network.

It is also important to note during the transition from TEN-T to CEF, the shift from small scale to larger Actions addressing specific Corridor priorities in a more global way. The works carried out during 2019 proved that, to ensure the successful completion of such Actions by the end of the eligibility period, additional coordination between all involved stakeholders is required, both at national and EU level. The early involvement of stakeholders from the civil society has proved to be extremely successful for the actions including EIA procedures.

Thanks to CEF funded Actions, an increased sense of ownership among the actors involved at national and EU level has been observed. A telling example in this regard is FAIRway Danube (Action 2014-EU-TMC-0231-S), which is creating a Danube-wide platform for exchange and discussion, enabling the alignment of inland waterway transport and environmental priorities. CEF Actions have also facilitated greater political commitment from Member States in the field of innovation and ITS, where close cooperation in the countries concerned is essential.

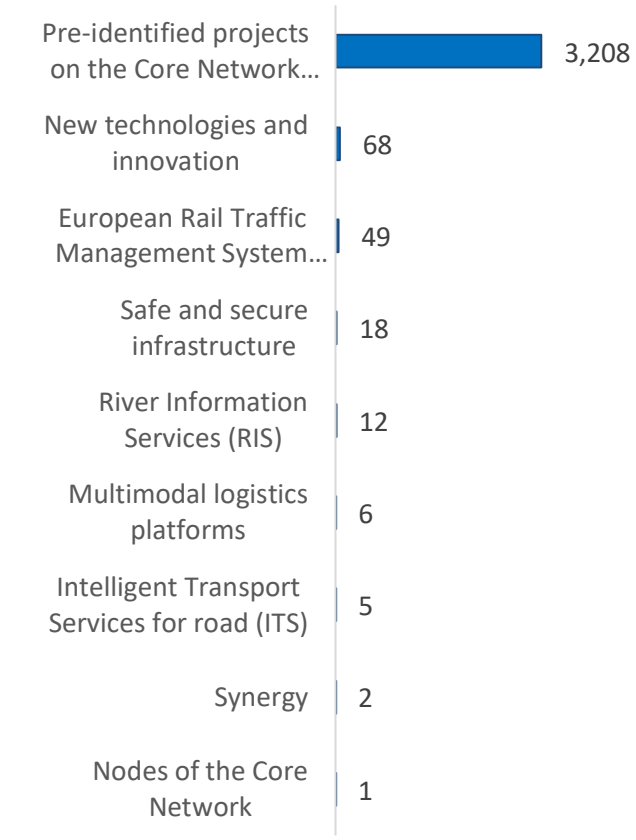
Thus, despite the still existing difficulties as described in section 3.2, considerable progress has been achieved in the past 5 years of CEF implementation and some significant milestones have been

reached. INEA will continue making implementation happen through regular monitoring of the progress of the Actions in support of the Rhine-Danube Corridor Coordinator and concerned countries.At the moment of drafting this report, the consequences of the health crisis caused by COVID-19 could not yet be assessed or quantified.

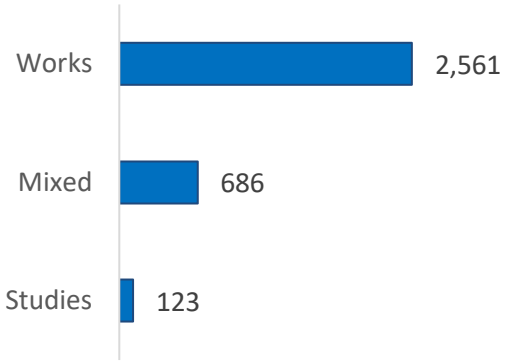
5. Statistical Annex

CEF Transport funding in the Rhine Danube Corridor: €3.4 billion

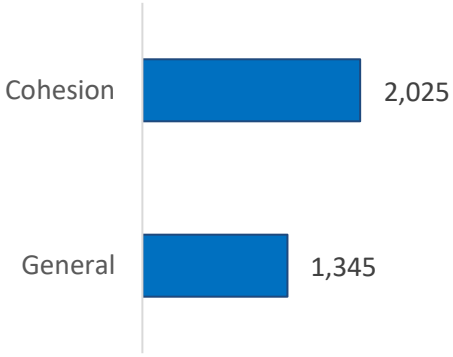
Corridor funding per priority
€ million



Corridor funding per type
€ million

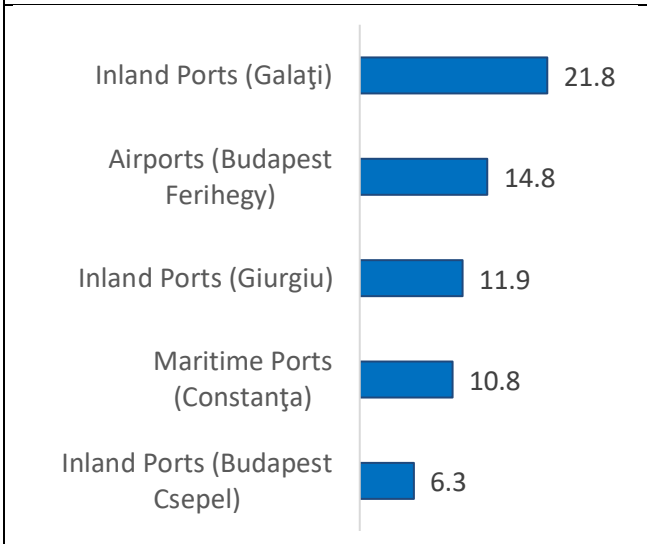


Corridor funding per envelope
€ million



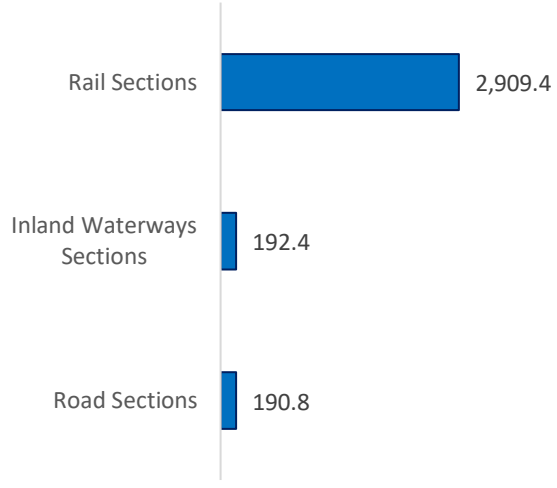
CEF Transport funding in Nodes: €76.9 million

Corridor funding per TOP 5 Nodes
€ million



CEF Transport funding in Sections: €3.3 billion

Corridor funding per Mode of Section
€ million



6. List of actions on the Rhine Danube Corridor

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Air	2014-DE-TM-0105-S	Decarbonised passenger transport at European airports	Closed	New technologies and innovation	Studies	01/10/2014	31/12/2016	100%	559,332	1,118,664
Air	2014-HU-TMC-0508-W	Connection of the railway line Budapest-Arad to the multi-modal hub at Budapest Airport	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/01/2014	30/09/2021	100%	14,841,000	17,460,000
Air	2015-DE-TM-0426-S	Erdinger Ringschluss	Closed	Nodes of the Core Network	Studies	01/03/2016	30/06/2018	100%	901,100	1,802,200
Air Total									16,301,432	20,380,864
Inland Waterways	2014-EU-TM-0210-S	Pilot implementation of an Upper Rhine traffic management platform	Closed	New technologies and innovation	Studies	01/07/2014	30/06/2018	65%	645,125	1,290,250
Inland Waterways	2014-EU-TM-0219-S	FAIRway Danube	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/07/2015	31/12/2021	100%	323,161	646,321
Inland Waterways	2014-EU-TMC-0231-S	FAIRway Danube	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/07/2015	31/12/2021	100%	17,913,772	21,075,026

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Inland Waterways	2014-EU-TMC-0297-S	Technical Assistance for Revising and Complementing the Feasibility Study Regarding the Improvement of Navigation Conditions on the Romanian-Bulgarian Common Sector of the Danube and Complementary Studies - FAST DANUBE	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/11/2014	31/12/2020	100%	4,464,200	5,252,000
Inland Waterways	2014-FR-TM-0260-W	New Multimodal Terminal of the Port of Strasbourg / Lauterbourg site	Closed	Multimodal logistics platforms	Works	01/04/2015	31/07/2018	100%	1,995,277	9,976,385
Inland Waterways	2014-HU-TM-0619-W	Enhance the Efficiency of Hungarian RIS Operation	Closed	River Information Services (RIS)	Works	01/03/2015	31/05/2018	100%	6,491,287	12,982,574
Inland Waterways	2014-HU-TMC-0605-W	Improving fairway marking system on the Hungarian Danube section of the Rhine - Danube corridor	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/09/2015	31/05/2022	100%	7,581,891	8,919,872

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Inland Waterways	2014-HU-TMC-0606-S	Improving navigability on the Hungarian section of the Danube in the Rhine-Danube corridor: Extended study to prepare implementation	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/09/2015	30/09/2020	100%	5,362,900	6,309,294
Inland Waterways	2014-RO-TMC-0313-W	High Performance Green Port Giurgiu- Stage II Construction	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/09/2015	31/03/2021	100%	13,254,954	15,594,063
Inland Waterways	2015-DE-TM-0133-W	Core Network Port Regensburg - Improving Accessibility	Ongoing	Multimodal logistics platforms	Works	01/03/2016	30/09/2020	100%	1,048,000	5,240,000
Inland Waterways	2015-DE-TM-0376-M	LNG for shipping and logistics in Europe	Ongoing	New technologies and innovation	Studies	01/03/2016	31/12/2020	50%	2,028,000	4,056,000
Inland Waterways	2015-EU-TM-0036-W	River Information Services Corridor Management Execution (Cohesion Call)	Ongoing	River Information Services (RIS)	Works	15/02/2016	31/12/2020	50%	2,859,331	3,363,919
Inland Waterways	2015-EU-TM-0038-W	River Information Services Corridor Management Execution	Ongoing	River Information Services (RIS)	Works	15/02/2016	31/12/2020	17%	1,680,735	3,361,471

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
		(General Call)								
Inland Waterways	2015-HU-TM-0152-S	Master Plan and feasibility study for the development of the TEN-T ports, including Komárom Port	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/08/2016	31/03/2020	100%	889,683	1,046,686
Inland Waterways	2015-HU-TM-0187-W	RIS enabled Hungarian Inland Navigation Information System (HIR)	Ongoing	River Information Services (RIS)	Works	16/02/2016	31/07/2019	100%	1,101,090	1,295,400
Inland Waterways	2015-HU-TM-0349-M	PAN-LNG-4-DANUBE	Ongoing	New technologies and innovation	Mixed	01/06/2016	31/12/2021	100%	6,032,578	7,097,150
Inland Waterways	2015-HU-TM-0365-S	Preparatory activities to upgrade the railway link between the inland Freeport of Budapest and the core network corridors	Ongoing	Pre-identified projects on the Core Network corridors	Studies	16/02/2016	31/12/2020	100%	840,858	989,245

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Inland Waterways	2015-RO-TM-0275-W	Galati multimodal platform - Stage I - Upgrade of the waterside infrastructure	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/08/2016	31/12/2021	100%	21,776,814	25,619,781
Inland Waterways	2015-RO-TM-0366-S	SWIM - SMART Waterway Integrated Management	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/07/2016	31/12/2020	100%	10,388,870	12,222,200
Inland Waterways	2015-SK-TM-0116-S	Master plan and feasibility study for the public port of Komárno	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/09/2016	31/12/2020	100%	572,135	673,100
Inland Waterways	2015-SK-TM-0151-W	Upgrade of Gabčíkovo locks	Ongoing	Pre-identified projects on the Core Network corridors	Works	17/02/2016	31/12/2022	100%	122,965,250	144,665,000
Inland Waterways	2016-HR-TMC-0122-S	Preparation of EIA Study and Design Documentation for the river Sava IW section between rkm 329 to 315 and 312+200 to 300	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/01/2018	31/12/2020	100%	551,541	648,872
Inland Waterways	2016-HU-TMC-0164-S	Integrated Port Information System in Hungary	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/09/2017	31/12/2020	34%	288,278	339,150

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Inland Waterways	2016-SK-TMC-0263-S	DaReM project - Danube Rehabilitation Measures	Ongoing	Pre-identified projects on the Core Network corridors	Studies	07/02/2017	31/12/2020	100%	8,287,500	9,750,000
Inland Waterways	2017-DE-TM-0040-W	LNG Rollout in Central Europe - for a greener transportation sector	Terminated	New technologies and innovation	Works	01/01/2018	30/06/2021	30%	-	-
Inland Waterways	2018-AT-TM-0006-W	Upgrading the Enns multimodal terminal with combined transport transhipment facilities	Ongoing	Multimodal logistics platforms	Works	22/10/2018	30/06/2020	100%	1,646,000	8,230,000
Inland Waterways	2018-EU-TM-0020-S	Masterplan Digitalisation of Inland Waterways	Ongoing	River Information Services (RIS)	Studies	01/07/2019	02/12/2022	13%	189,800	379,600
Inland Waterways Total									241,179,029	311,023,358
Maritime	2015-RO-TM-0046-M	Upgrade of infrastructure and environmental protection in Constanța Port - PROTECT	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/07/2016	31/12/2020	100%	10,791,706	12,696,125
Maritime Total									10,791,706	12,696,125
Rail	2014-CZ-TMC-0274-M	Junction Plzen, 3rd construction - transposition of the	Ongoing	Pre-identified projects on the Core Network	Mixed	01/06/2014	31/12/2020	100%	35,761,031	49,924,656

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
		Domazlice line		corridors						
Rail	2014-CZ-TMC-0282-M	Junction Plzen, 2nd construction - reconstruction of passenger station, including bridges Mikulasska	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	01/12/2014	31/01/2020	100%	22,613,926	31,570,468
Rail	2014-CZ-TMC-0329-M	Optimization of the line Beroun (incl.) – Kraluv Dvur	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	01/05/2014	31/10/2021	100%	54,951,798	72,726,043
Rail	2014-DE-TM-0057-W	ERTMS Deployment on the German part of the Core Network Corridor Rhine - Alpine	Ongoing	European Rail Traffic Management System (ERTMS)	Works	01/01/2014	31/12/2020	17%	9,132,458	18,569,261
Rail	2014-DE-TM-0094-M	Upgraded line / New-build line (ABS/NBS) Karlsruhe - Basel with partial upgrade measures on the existing line	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	01/01/2014	31/12/2021	52%	163,930,943	399,548,362

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Rail	2014-DE-TM-0163-W	Upgrade and new build of Stuttgart-Wendlingen line, including Stuttgart 21	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/01/2014	31/12/2021	100%	589,976,453	1,966,588,176
Rail	2014-DE-TM-0166-W	New-build line Wendlingen-Ulm	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/01/2014	31/12/2021	100%	432,869,136	1,442,897,120
Rail	2014-EU-TM-0267-W	Upgrading of the Freilassing – D/A border - Salzburg section of the TEN core network corridor Rhine – Danube	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/01/2016	31/12/2019	100%	14,740,588	36,851,470
Rail	2014-RO-TMC-0639-W	THE REHABILITATION OF THE BRASOV – SIMERIA RAILWAY COMPONENT OF THE RHIN - DANUBE CORRIDOR, FOR CIRCULATION WITH MAXIMUM SPEEDs OF 160 KM/H; SECTION: BRASOV – SIGHISOARA.	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/11/2015	31/12/2022	100%	415,218,888	488,492,809

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
		SUBSECTIONS: 1. BRASOV – APATA and 3. CATA – SIGHISOARA.								
Rail	2015-AT-TM-0289-S	Rhine-Danube CNC: Connection to the existing freight terminal Wels and provision for the interconnection between the RRT & other modes (Studies)	Terminated	Multimodal logistics platforms	Studies	16/02/2016	01/12/2019	100%	-	-
Rail	2015-CZ-TM-0058-S	Modernisation of the Plzeň – Domažlice – DE border railway line	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/12/2016	31/05/2022	100%	8,681,597	10,213,644
Rail	2015-CZ-TM-0088-M	Upgrade of the Valašské Meziříčí - Hustopeče nad Bečvou railway line	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	01/01/2017	31/12/2020	100%	46,304,912	55,072,445

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Rail	2015-CZ-TM-0099-M	Modernisation of selected sections of the railway line Pardubice - Česká Třebová	Ongoing	Pre-identified projects on the Core Network corridors	Studies	18/03/2016	31/12/2022	100%	10,286,001	12,101,178
Rail	2015-CZ-TM-0166-M	Modernisation of Cheb railway station	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	01/03/2016	30/09/2020	100%	15,351,564	18,387,309
Rail	2015-CZ-TM-0170-S	Upgrade of the Praha hl. n. - Praha Smíchov railway line	Ongoing	Pre-identified projects on the Core Network corridors	Studies	31/10/2016	31/12/2020	100%	4,957,794	5,832,699
Rail	2015-CZ-TM-0174-M	ETCS Beroun-Plzeň-Cheb	Ongoing	European Rail Traffic Management System (ERTMS)	Mixed	01/11/2016	31/12/2020	100%	27,147,770	31,938,553
Rail	2015-CZ-TM-0354-M	Upgrade of the Praha Smíchov - Černošice railway line	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	01/03/2016	31/12/2020	100%	97,398,651	128,902,397
Rail	2015-CZ-TM-0377-M	ETCS Prerov - Ceska Trebova	Ongoing	European Rail Traffic Management System (ERTMS)	Mixed	01/01/2017	31/12/2020	100%	11,889,222	13,987,320

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Rail	2015-DE-TM-0363-W	Design and equipment of ERTMS for six border crossing corridor sections as well as two gap closings on German TEN core network corridors	Ongoing	European Rail Traffic Management System (ERTMS)	Works	16/02/2016	31/12/2020	5%	1,245,723	2,587,164
Rail	2015-HU-TM-0053-W	Stage 2 of deployment of the GSM-R system on the TEN-T Railway Core Network in Hungary	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/09/2016	31/12/2021	17%	8,413,609	9,898,363
Rail	2015-HU-TM-0134-W	Upgrade of the Budapest South Railway Bridge	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/01/2017	31/12/2022	100%	97,105,657	114,241,949
Rail	2015-RO-TM-0362-W	Rehabilitation of the Brașov – Sighisoara railway section, sub-section Apața – Cața	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/11/2016	31/12/2022	100%	372,144,762	455,278,642

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Rail	2015-SK-TM-0200-W	Modernisation of railway line Žilina – Košice, section Liptovský Mikuláš – Poprad-Tatry (outside), stage 1 (Poprad-Lučivná)	Pre-terminated	Pre-identified projects on the Core Network corridors	Works	17/02/2016	31/12/2020	100%	77,619,766	97,316,657
Rail	2016-CZ-TMC-0014-W	Modernisation of the Čelákovice railway station	Ongoing	Pre-identified projects on the Core Network corridors	Works	31/01/2017	31/10/2019	100%	17,373,556	20,914,356
Rail	2016-CZ-TMC-0033-W	Upgrade of the Přerov railway junction, phase 2	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/12/2018	31/12/2021	100%	33,137,851	42,364,934
Rail	2016-CZ-TMC-0102-M	Upgrade of the Mstětice - Praha-Vysočany railway line	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	19/09/2017	31/03/2023	100%	131,496,521	158,296,041
Rail	2016-CZ-TMC-0106-M	Upgrade of the Lysá nad Labem - Čelákovice railway line	Ongoing	Pre-identified projects on the Core Network corridors	Mixed	26/06/2017	30/06/2022	100%	42,491,999	51,152,039
Rail	2016-HU-TMC-0319-S	Budapest Railway Node Strategic Development Study	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/01/2018	30/04/2021	100%	1,266,500	1,490,000

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Rail	2016-RO-TMC-0076-S	Feasibility study for upgrading the Predeal-Braşov railway section	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/11/2017	18/04/2022	100%	3,724,530	4,381,800
Rail	2016-RO-TMC-0248-S	Feasibility study for upgrading the railway infrastructure in Constanţa port	Ongoing	Pre-identified projects on the Core Network corridors	Studies	01/11/2017	30/04/2021	100%	1,809,937	2,129,338
Rail	2016-SK-TMC-0218-W	Implementation of GSM-R into ŽSR infrastucture, section of Varín - Košice - Čierna nad Tisou state border	Ongoing	Pre-identified projects on the Core Network corridors	Works	02/03/2017	31/12/2023	100%	25,112,113	29,543,662
Rail	2016-SK-TMC-0219-W	Upgrade of the Váh – Varín – Strečno railway section	Ongoing	Pre-identified projects on the Core Network corridors	Works	07/02/2017	31/12/2022	100%	50,319,392	64,553,421
Rail	2017-AT-TM-0001-W	Upgrading and electrification from Vienna Stadlau to the Slovakian Border near Marchegg (bottleneck removal)	Ongoing	Pre-identified projects on the Core Network corridors	Works	14/07/2017	31/12/2023	100%	65,753,400	328,767,000

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Rail	2017-CZ-TM-0020-W	Removing selected bottlenecks on pre-identified sections of the Core Network Corridors	Ongoing	Pre-identified projects on the Core Network corridors	Works	16/04/2019	31/12/2022	50%	19,142,152	95,710,761
Rail	2018-AT-TM-0035-S	Integration of the existing Rail-Road Terminal Wels to the Rhine-Danube CNC	Ongoing	Multimodal logistics platforms	Studies	01/11/2018	31/12/2023	100%	1,008,252	2,016,504
Rail Total									2,910,378,451	6,264,246,541
Road	2014-EU-TM-0196-S	FAST-E (DE/BE)	Ongoing	New technologies and innovation	Studies	01/09/2014	30/09/2018	15%	1,313,978	2,627,955
Road	2014-EU-TM-0318-S	Connecting Hydrogen Refuelling Stations (COHRS)	Ongoing	New technologies and innovation	Studies	01/09/2015	31/12/2020	15%	1,946,668	3,893,336
Road	2014-EU-TM-0563-W	CROCODILE 2	Ongoing	Intelligent Transport Services for road (ITS)	Works	01/01/2015	31/12/2019	20%	1,651,400	8,257,000
Road	2014-EU-TMC-0485-W	Connecting Core Network elements in the transport sector: Corridor Rhine-Danube Komárom - Komárno cross-	Ongoing	Pre-identified projects on the Core Network corridors	Works	01/06/2014	31/12/2020	100%	100,067,341	117,726,283

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
		border Bridge								
Road	2014-EU-TMC-0568-S	FAST-E (SK/CZ)	Closed	New technologies and innovation	Studies	01/09/2014	30/09/2018	35%	718,289	845,046
Road	2014-HU-TMC-0629-M	PAN-LNG Project	Ongoing	New technologies and innovation	Mixed	02/06/2015	30/06/2018	40%	5,774,319	6,793,316
Road	2015-CZ-TM-0357-S	EV Fast Charging Backbone Network Central Europe	Ongoing	New technologies and innovation	Studies	18/02/2016	30/09/2019	25%	491,938	578,750
Road	2015-CZ-TM-0430-M	Extension of the rest area Střechov on motorway D1	Ongoing	Safe and secure infrastructure	Mixed	01/10/2016	30/11/2020	100%	9,198,700	10,822,000
Road	2015-EU-TM-0204-S	EAST-E	Ongoing	New technologies and innovation	Studies	01/03/2016	30/06/2020	25%	1,263,950	1,487,000
Road	2015-EU-TM-0261-M	Expansion of safe & secure truck parking spaces and truck parking information systems on the TEN-T core network in	Ongoing	Safe and secure infrastructure	Mixed	16/02/2016	31/12/2019	98%	3,002,056	13,640,239

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
		Austria and Germany (Bavaria)								
Road	2015-EU-TM-0367-S	ULTRA-E	Ongoing	New technologies and innovation	Studies	01/03/2016	31/12/2019	32%	2,093,648	4,187,296
Road	2015-EU-TM-0422-S	LNG motion: Fuelling trucks with LNG/CNG along the core network	Ongoing	New technologies and innovation	Studies	16/02/2016	30/06/2021	10%	1,241,141	2,482,282
Road	2015-HR-TM-0390-W	Construction of the Svilaj Bridge across Sava river on the border between the Republic of Croatia and Bosnia and Herzegovina	Ongoing	Pre-identified projects on the Core Network corridors	Works	16/02/2016	30/09/2020	100%	7,194,077	12,410,000
Road	2015-RO-TM-0137-M	Setup and ITS connectivity of safe and secure truck parking areas in Romania along the TEN-T Core Network Corridors	Closed	Safe and secure infrastructure	Mixed	17/02/2016	28/02/2018	100%	4,146,158	4,877,833

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Road	2015-RO-TM-0373-M	CNG ROMANIA: Initial Market Deployment of a Refuelling Station Network along the Core Network Corridors	Ongoing	New technologies and innovation	Mixed	01/03/2016	31/12/2021	83%	3,677,234	4,326,158
Road	2015-RO-TM-0435-W	Early Warning Intelligent System for Road Transportation Risks	Closed	New technologies and innovation	Works	01/10/2016	30/09/2018	50%	36,114	42,487
Road	2015-SK-TM-0320-S	NCE-FastEvNet	Closed	New technologies and innovation	Studies	01/03/2016	30/03/2019	4%	130,356	153,360
Road	2016-CZ-TMC-0191-M	Extension of the Humpolec rest area on D1 motorway	Ongoing	Safe and secure infrastructure	Mixed	07/02/2017	28/02/2020	100%	1,398,016	1,644,725
Road	2016-CZ-TMC-0296-S	CEZ EV TEN-T Fast Charging Network	Ongoing	New technologies and innovation	Studies	08/02/2017	30/06/2020	30%	748,935	881,100
Road	2016-DE-TM-0332-S	LNG4Trucks	Ongoing	New technologies and innovation	Studies	07/02/2017	31/12/2020	7%	670,960	1,341,920
Road	2016-EU-SA-0013	SYNERG-E	Ongoing	(blank)	Studies	01/01/2017	31/12/2020	33%	1,725,055	2,875,092
Road	2016-EU-TM-0044-M	URSA MAJOR neo	Ongoing	Intelligent Transport Services for road (ITS)	Mixed	07/02/2017	31/12/2020	10%	3,212,939	14,946,171

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Road	2016-EU-TM-0121-W	High speed electric mobility across Europe	Ongoing	New technologies and innovation	Works	01/07/2017	31/12/2020	8%	813,440	4,067,200
Road	2016-EU-TMC-0344-W	Comprehensive fast-charging corridor network in South East Europe	Ongoing	New technologies and innovation	Works	01/05/2017	31/12/2020	59%	2,022,732	2,528,416
Road	2016-EU-TMC-0350-S	NEXT-E	Ongoing	New technologies and innovation	Studies	01/03/2017	31/12/2020	29%	5,464,905	6,429,300
Road	2016-EU-TMC-0351-S	URBAN-E: e-Mobilty, Infrastructure and Innovative Intermodal Services in Ljubljana, Bratislava and Zagreb	Ongoing	Nodes of the Core Network	Studies	01/03/2017	31/12/2020	14%	532,294	626,228
Road	2016-SK-TMC-0235-S	fueLCNG	Ongoing	New technologies and innovation	Studies	03/07/2017	31/12/2020	34%	5,335,717	6,277,315
Road	2016-SK-TMC-0317-S	NCE-AdvancedEvNet	Ongoing	New technologies and innovation	Studies	01/03/2017	30/06/2020	33%	2,034,614	2,393,663
Road	2016-SK-TMC-0320-S	LBG: Fuelling Renewable Transport in the Visegrad countries	Ongoing	New technologies and innovation	Studies	07/02/2017	31/12/2020	40%	11,030,655	12,977,241

Transport Mode	Action code	Title	Status	Priority	Type	Actual start date	Actual end date	Actual Corridor Share	Actual funding	Actual costs
Road	2017-DE-TM-0064-W	EUROP-E: European Ultra-Charge Roll Out Project - Electric	Ongoing	New technologies and innovation	Works	15/07/2017	31/12/2021	8%	3,128,430	15,642,152
Road	2017-DE-TM-0126-W	Biohybrid-Market rollout of sustainable small-scale solution supplying LBG as alternative fuel for heavy-duty transport	Terminated	New technologies and innovation	Works	01/06/2018	31/12/2021	100%	-	-
Road	2017-EU-TM-0065-W	Central European Ultra Charging	Ongoing	New technologies and innovation	Works	01/01/2018	31/05/2021	26%	3,210,377	16,051,887
Road	2017-EU-TM-0068-W	MEGA-E: Metropolitan Greater Areas - Electric	Ongoing	New technologies and innovation	Works	01/08/2017	31/12/2021	8%	2,344,026	11,720,132
Road	2017-EU-TM-0080-W	BioLNG EuroNet	Ongoing	New technologies and innovation	Works	12/04/2018	31/12/2023	6%	1,524,576	7,622,880
Road	2017-IT-TM-0110-W	AMBRA-E lectrify Europe	Ongoing	New technologies and innovation	Works	01/09/2018	31/12/2022	12%	1,698,112	8,490,561
Road Total									190,843,151	311,666,324

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