LEGAL BASIS

Regulation (EU) No 1316/2013 of the European Parliament and of the Council and Regulation (EU) 2015/1017 of the European Parliament and of the Council

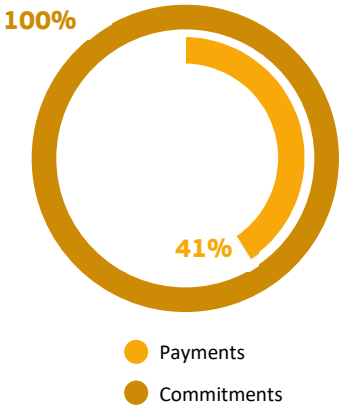
MORE INFORMATION

https://europa.eu/!Px98ju

BUDGET ALLOCATION 2014-2020:

EUR 29 904.3 million ([3])

OVERALL EXECUTION (2014-2020)



Evaluations/ studies conducted

The midterm evaluation of the CEF was carried out in 2017. For further information please consult: http://europa.eu/!Rc38MC

How is it implemented?

The Directorate-General for Mobility and Transport is the lead DG for the implementation of the programme, in association with DG Energy and DG Communications Networks, Content and Technology. The CEF is implemented through direct management, mainly in the form of grants. In addition, it offers financial support to projects through innovative financial instruments such as guarantees and project bonds.

CEF

CONNECTING EUROPE FACILITY

What is the CEF?

The Connecting Europe Facility (CEF) is a key EU funding instrument to promote jobs, growth and competitiveness through targeted infrastructure investment at the EU level. It supports the development of high-performance, sustainable and efficiently interconnected trans-European networks in the fields of transport, energy and digital services.

Specific objectives

CEF Transport

- Removing bottlenecks, enhancing rail interoperability, bridging missing links and, in particular, improving cross-border sections.
- Ensuring sustainable and efficient transport systems in the long run, with a view to preparing for expected future transport flows, and enabling all modes of transport to be decarbonised through a transition to innovative low-carbon and energy-efficient transport technologies, while optimising safety.
- Optimising the integration and interconnection of transport modes and enhancing the interoperability of transport services, while ensuring the accessibility of transport infrastructures.

CEF Energy

- Increasing competitiveness by promoting the further integration of the internal energy market and the interoperability of electricity and gas networks across borders.
- Enhancing the security of the EU's energy supply.
- Contributing to sustainable development and the protection of the environment by integrating energy from renewable sources into the transmission network and by developing smart energy networks and carbon dioxide networks.

CEF Telecom

- Contributing to the interoperability, connectivity, sustainable deployment, operation and upgrading of trans-European digital service infrastructures and coordination at the EU level.
- Contributing to the efficient flow of private and public investments to stimulate the deployment and modernisation of broadband networks.

Why is it necessary?

CEF Transport makes travel easier and more sustainable. It contributes to the decarbonisation of the European economy by investing heavily in environmentally friendly transport modes, including railways, which receive around 70% of the funding. The CEF focuses on cross-border projects, efficient traffic management systems and alternative fuels, thus increasing safety and sustainability.

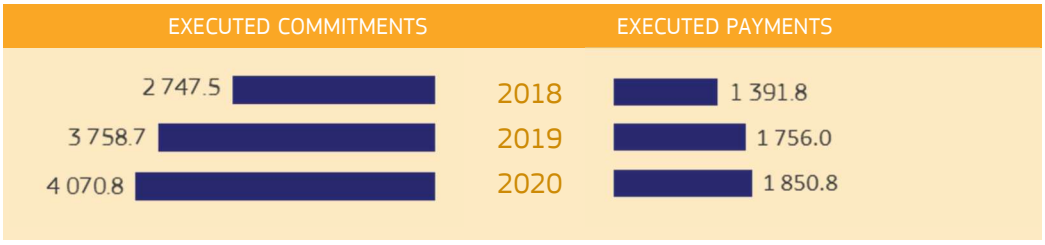
CEF Energy enhances the EU's energy security and enables wider use of renewables. It promotes the further integration of the internal energy market and the interoperability of electricity and gas networks across borders, and ensures that no Member State is isolated. It enhances the EU's security of supply and contributes to the sustainable development and protection of the environment by fostering the integration of more renewable electricity.

CEF Telecom facilitates cross-border interactions between public administrations, businesses and citizens. It supports the vision of public services being digital and cross-border. It also promotes free wireless connectivity in local communities and stimulates investment in deploying and modernising broadband networks, therefore sustaining the digital single market.

Outlook for the 2021-2027 period

For the Transport and Energy sectors, the CEF will continue the successful work of the 2014-2020 programme, with continuity in its mission and specific objectives but a focus on new priority actions. For the digital strand, the programme will have a new focus on the deployment of high-performance digital communication infrastructures.

Budget implementation (in EUR million)



([3]) Including Cohesion Fund contribution.

Key performance indicators

	Baseline	PROGRESS TO TARGET	Target	Results	Assessment
CEF Transport – volume of private, public or public–private partnership investment in projects of common interest (billion EUR)		59%	53.0	EUR 31.3 billion out of EUR 53.0 billion	Moderate progress
CEF Transport – lines in service equipped with the European Railway Traffic Management System		1% — 7%	5 971	30 km (estimated value: 434) out of 5 971 km (1)	Moderate progress
CEF Transport – new sections with increased capacity and bottlenecks removed		9% 27%	350	31 (estimated value: 93) out of 350 (1)	Moderate progress
CEF Transport – number of supply points for alternative fuels		3% 8%	20 757	706 (estimated value: 1 618) out of 20 757 (1)	Moderate progress
CEF Transport – improved or new connections between ports through motorways of the sea		42% 63%	31	13 (estimated value: 20) out of 31	Moderate progress
CEF Energy – system resilience – number of Member States	3	89%	22	20 out of 22	On track
CEF Energy – Member States with diversified gas supply sources	19	86%	26	25 out of 26	On track
CEF Telecom – citizens using public services online	57%	100%	70%	67% out of a target of 67%	On track
CEF Telecom – availability of cross-border public services		80%	100%	80% out of a target of 100%	On track

2020 actual results, as a % of the target
2020 estimated values, as a % of the target (1)

(1) Estimated values represent project results to be completed by 2020 based on the contractual delivery dates in the signed grant agreement – see explanation below under 'Performance assessment'.

Where are we in the implementation?

- The CEF's 2014-2020 cumulative implementation rate reflects the progress of the projects selected for co-funding during the programme's last 7 years of implementation. The cumulative implementation rate (41%) mirrors the specificity of the programme, under which investments are mainly channelled to complex infrastructure projects implemented over a long period. CEF Transport and Telecom projects are expected to be completed by end of 2024, and CEF Energy projects by 2025. Moreover, specific sectoral issues further delayed the implementation of the programme (see below).

CEF Transport

- In the 2014-2020 period, CEF Transport co-funding amounting to EUR 23.03 billion was allocated to 959 actions. While addressing infrastructure along both the core and the comprehensive network of the trans-European transport network, the programme focuses its support on the core network, with more than 170 sections concerned.
- According to the assessment of the yearly reporting for 2020 (covering implementation up to the end of 2019), CEF Transport projects experienced some delays, and their implementation rate is around 42%, compared with the expected 48% included in the grant agreements.
- Notably, projects dedicated to 'Removing bottlenecks, enhancing rail interoperability, bridging missing links and improving cross-border sections', representing 83% of total CEF Transport co-financing, saw financial progress of around 40%, against an expected rate of progress of 46%. These include the main cross-border infrastructure projects, such as Rail Baltica, the Fehmarn Belt fixed link, the Brenner Base tunnel, Lyon–Turin and Seine–Scheldt. The main issues affecting their implementation relate to public procurement issues (e.g. complaints/appeals during tender procedures) and to legal and environmental issues (e.g. permitting, spatial planning, other authorisations and land acquisition). Moreover, technical issues related to unforeseen events, such as landslides, issues related to project coordination, political support or securing sufficient co-funding from national or other sources, also occurred during the implementation of these CEF actions.
- According to the exchanges with the project promoters during 2020, the outbreak of the COVID-19 pandemic further delayed the implementation of some actions supported by the CEF. For example, the aviation sector has been one of those hardest hit by the COVID-19 pandemic, particularly in relation to the implementation of the technical pillar of the single European sky initiative. Therefore, many beneficiaries have already reported that human and financial resources had to be reallocated to fight the consequences of the crisis. These issues are likely to result in additional delays.
- To mitigate the impact of these issues, the Commission and the Innovation and Networks Executive Agency (which became the European Climate, Infrastructure and Environment Executive Agency on 1 April 2021), are closely monitoring CEF actions, providing for the optimal use of EU funding (the 'use it or lose it' principle). The agreements reached with beneficiaries allow for the possible reallocation of unused funds to other mature projects as a result of the final CEF Transport call for proposals during 2021. The European Climate, Infrastructure and Environment Executive Agency is also continuing to implement its monitoring tools, including report assessments, site visits and follow-up meetings with CEF beneficiaries, thereby ensuring the thorough assessment and identification of actions for which amendments are needed.

CEF Energy

- In the 2014-2020 period, CEF Energy co-funding amounting to EUR 4 835 million was allocated to 149 actions, which contributed to 102 key energy infrastructure projects. In 2020, the 10th and last call for 2014-2020 was completed, allocating a total of EUR 997 million in CEF Energy co-funding to 10 actions. By the end of 2020, a total of 79 actions that received CEF support had been completed, consisting of 41 electricity and storage actions, 37 gas actions and one CO_2 action, and in the form of 75 studies and four works.
- The implementation rate of 26% for CEF Energy is lower than the overall rate of CEF implementation. This is due to several large multiannual actions with long lead times, which due to their very complex nature can often be subject to delays. Delays may occur for various reasons, including securing sufficient co-funding from national or other sources, public procurement issues (e.g. complaints/appeals during tender procedures) and legal and environmental issues (including permitting, spatial planning, other authorisations and land acquisition).
- The COVID-19 crisis has also led to additional delays for certain actions, for instance due to the need to reschedule public consultations, which resulted in longer-than-expected permitting procedures.

- Some of the projects may only be completed by 2025. These include the Baltic synchronisation project, which will synchronise the electricity grids of the three Baltic states with the continental European network to allow these Member States to gain full control of their electricity networks and to strengthen energy security; the Biscay Bay electricity interconnector between Spain and France, which will further integrate the Iberian peninsula into the European electricity market; and the Celtic electricity interconnector, which will establish the first electricity link between Ireland and continental Europe, to end Ireland's energy isolation after Brexit.
- The Baltic pipe project, which will establish a new bidirectional offshore gas pipeline connecting Poland and Denmark through the Baltic Sea, and the Poland–Slovakia gas interconnection are expected to be completed in 2022. They contribute greatly to energy security and the diversification of supply sources.
- A provision in the grant agreements requires project promoters to regularly submit action status reports to the Innovation and Networks Executive Agency (now the European Climate, Infrastructure and Environment Executive Agency). These reports provide an overview of the actions' technical and financial progress. In addition, the projects are subject to yearly monitoring by national competent authorities and the European Union Agency for the Cooperation of Energy Regulators. This allows the Commission to monitor the progress and implementation of the projects.

CEF Telecom

- With an overall investment of almost EUR 280 million in the core service platforms, the Commission is enabling the EU-wide interoperability of specific digital services such as eHealth, public open data, eID and cybersecurity. The uptake of these services with CEF support reached 571 projects in the Member States and participating countries in the European Economic Area by the end of 2020, most of which are still being implemented. The last set of calls will expand the portfolio of projects with an additional 88 projects. With an EU contribution of almost EUR 350 million in generic services and an overall leveraged amount of more than EUR 450 million, CEF digital services support EU citizens, businesses and public administrations in interconnecting and adapting their systems to become interoperable across borders.
- Regarding the WiFi4EU initiative, more than 8 800 vouchers were awarded through the programme during 2018-2020, with a budget of EUR 130 million spread over four calls. The EUR 15 000 voucher granted to municipalities is being used to install free public Wi-Fi in parks, squares, public buildings, libraries, health centres and museums throughout Europe.

CEF financial instruments

- Under CEF Transport, the roll-out of the CEF debt instrument to support green mobility projects continued, and the pipeline of operations grew further. During 2020, and despite the delays in investment decisions due to COVID-19, four new operations were signed under the high-risk 'Future mobility' product, leveraging total investments of EUR 266 million. The operations consist of the large-scale deployment of electric vehicle charging stations; the implementation of hydrogen refuelling stations and buses; the development of a platform for car-sharing services; and the installation of innovative facilities for modal shift from road to rail. Since 2014, EUR 5.8 billion in investment has been raised by the instrument in the transport sector.
- In the energy sector, no projects have been selected under the instrument. EUR 89 million is still available for energy projects currently under appraisal by the European Investment Bank.
- Through the CEF debt instrument, the EIB signed a loan agreement with a project promoter for a total amount of EUR 100 million, for total project costs estimated at EUR 241 million. The Connecting Europe Broadband Fund (CEF equity instrument) was launched in 2018, and has so far raised EUR 510 million.

Performance assessment

- In general, the approach of the 2014-2020 CEF was sound, and will be maintained in the next multiannual financial framework. In particular, the CEF is an effective and targeted instrument for investment in trans-European infrastructure in the transport, energy and digital sectors. It is expected to contribute strongly to the Commission's priorities on jobs, growth and investment, the internal market, the energy union and climate, and the digital single market. The direct management of CEF grants has proven very efficient, with a strong project pipeline and a competitive selection process, a focus on EU policy objectives, coordinated implementation and the full involvement of Member States.
- It is currently too early to conclude whether the programme's goals will be achieved, since the nature of large-scale infrastructure projects makes it difficult to present results at this stage. Nevertheless, the close monitoring of projects by the Innovation and Networks Executive Agency (now the European Climate, Infrastructure and Environment Executive Agency) ensures the identification of actions for which amendments are needed. This makes the instrument very reactive to new needs and constraints, and allows, where possible, for the swift reallocation of funds where necessary.
- Furthermore, the Commission and Innovation and Networks Executive Agency (now the European Climate, Infrastructure and Environment Executive Agency) are continuing to work to improve the programme's performance. In particular, areas for improvement were identified following the midterm evaluation of the CEF and in line with the recommendations of certain special reports of the European Court of Auditors. Notably, the programme faced limitations on cross-sectoral synergies due to differences in the sectoral legal frameworks. In addition, it was found that the programme would benefit from more transparency and predictability.

Transport sector

- In line with the European Green Deal, transport infrastructure investments contributed strongly to climate objectives, feeding into the EU's long-term decarbonisation commitments. Around 80% of the support from the CEF has been allocated to the rail and inland waterways sectors and to support the accelerated deployment of alternative fuel facilities, fostering a new mobility paradigm. Moreover, data and digital infrastructure backing up the ecological transition for all sectors, including transport, have received targeted support, thereby enhancing the deployment of digital solutions for all transport modes.
- CEF Transport indicator results should be interpreted bearing in mind that their targets are based on ongoing selected actions, and therefore they increase whenever a new action is awarded. In addition, there is a delay of approximately 18 months between the actual completion of a project and its registration, corresponding to the period required for the administrative closure of the projects.
- At the same time, the pace of implementation of the programme has been delayed and its performance against the related indicators hindered by issues that are not always under the direct control of the Commission (see the 'Where are we in the implementation?' section above). Moreover, the COVID-19 pandemic further jeopardised the achievement of the expected results in the course of 2020, by delaying the implementation of projects and by triggering the decision to extend the duration of the programme until the end of 2024 (information note to the CEF Transport Committee of 11 June 2020).
- Currently, around 75% of the actions within the CEF Transport portfolio are expected to be completed between 2021 and 2024. It is therefore too early to draw definitive conclusions on the long-term success and performance of the CEF Transport programme.

Energy sector

- The actions supported by CEF Energy are progressing well overall, with several actions, works or studies completed in 2020. The majority of the actions that were closed demonstrated full technical completion and made an important contribution to the key energy infrastructure projects of which they were part. However, in some cases, delays affecting the end date of the action were observed. The main reasons for the delays related to procurement, permitting, public acceptance, and regulatory and political issues (see the 'Where are we in the implementation?' section above).

- The study supporting the evaluation of the guidelines for trans-European energy infrastructure, published in January 2021, concluded that the projects of common interest that had been commissioned (consisting of key energy infrastructure projects considered essential for completing the European internal energy market and for reaching the EU's energy policy objectives of affordable, secure and sustainable energy) had increased market integration and security of supply and supported the integration of renewable energy sources into the energy system.
- Overall, CEF Energy is a strong catalyst in bringing together project promoters, national regulatory authorities and government representatives to solve issues so that cross-border infrastructure projects can be realised. The grants component of CEF Energy makes a difference in promoting cooperation between countries to develop and implement energy interconnection projects that otherwise would not happen. This is especially the case for cross-border projects located in countries with smaller population sizes or in more remote locations, where energy tariffs would need to be increased substantially to cover the investment needs. The Celtic electricity interconnector between Ireland and France and the Poland–Lithuania gas interconnector are examples of projects that could not have been funded in a purely national context.
- In addition to CEF financial assistance, four high-level groups have been set up by the Commission in different regions of the EU with the aim of providing high-level political support and direction to assist infrastructure development in these regions. These groups – the Central and South-Eastern European Connectivity Initiative, the North Seas Energy Cooperation, the Baltic Energy Market Interconnection Plan and the High-Level Group on Interconnections for South-West Europe – have made important contributions to the successful completion of actions and projects of common interest. The Central and South-Eastern European Connectivity Initiative, for example, has helped to advance the completion of phase 1 of the Bulgaria–Romania–Hungary–Austria gas pipeline corridor and the Krk liquefied natural gas terminal, while the Baltic Energy Market Interconnection Plan has played an important role in ensuring good progress in the project to synchronise the Baltic states' electricity grids with the EU network (as opposed to the Russian and Belarussian network).

Telecom sector

- CEF Telecom supported the deployment and promotion of 20 interoperable digital service infrastructures. Digital service infrastructures are based on mature technical and organisational solutions to support exchanges and collaboration between citizens, businesses and public administrations. The aim is to create a European ecosystem of interoperable digital services that will allow all such groups across the EU to benefit fully from living in a digital single market.
- As regards the objective of 'Contributing to the interoperability, connectivity, sustainable deployment, operation and upgrading of trans-European digital service infrastructures and coordination at the EU level', the direct management of CEF grants has proved very efficient, with a strong project pipeline, a competitive selection process, a focus on EU policy objectives, coordinated implementation and the full involvement of Member States.
- The CEF's midterm evaluation highlighted that in the case of some digital service infrastructures, such as the electronic exchange of social security information or online dispute resolution (where EU regulations and directives require their deployment), CEF Telecom provides an essential incentive for speeding up this process by providing important financial support for the Member states to become compliant. Other digital service infrastructures, such as cybersecurity, enable mechanisms to be used by Member States on a voluntary basis by promoting actions that most likely would have not been carried out at EU scale without CEF support.
- The CEF has supported and enabled the interoperability of EU businesses, citizens and public administrations in an increasing number of sectors, with the number rising from eight digital service infrastructures deployed in the first work programme to 20 supported in the latest one. Indeed, while the programme started supporting the interoperability in a limited set of areas, such as e-government, cybersecurity and the cultural sector, over the years and through various solutions it has also enabled interoperability in other areas, such as health, justice, social security, education and skills.
- For the objective of contributing to the efficient flow of private and public investments to stimulate the deployment and modernisation of broadband networks, CEF Telecom invested in the Connecting Europe Broadband Fund and made use of the CEF debt instrument.
- Extensive, but small, ground-level schemes like WiFi4EU have a significant impact in terms of raising awareness of the importance of connectivity and supporting digital inclusion, especially in rural areas. However, in order to manage the thousands of beneficiaries efficiently it was essential to put in place an adequate information technology infrastructure to support the execution of the programme from the outset. The experience gained from WiFi4EU will be a precious starting point for any similar scheme in the future. In the future CEF Digital, WiFi4EU will evolve to support 5G deployment and take-up by local communities.
- The Connecting Europe Broadband Fund is the first investment platform ever created in Europe to boost investment in broadband infrastructure. The mandate is to finance broadband infrastructure 'greenfield' projects in order to contribute to achieving the objectives set forth in the digital agenda for Europe and the European gigabit society communication. The Connecting Europe Broadband Fund supports deployment projects that focus mostly on remote or rural areas, where population density is low and there is a strong risk of a digital divide. It contributes to closing the funding gap in the market via direct financing to the private sector (focusing on mid-caps and small and medium-sized enterprises), publicly owned companies and public and private partnerships, and via financial intermediaries.
- At fund level, the Connecting Europe Broadband Fund has raised €470 million in financial commitments, including from three private investors for a total of €75 million. At project level, the Connecting Europe Broadband Fund has funded seven projects, with contributions totalling €195 million and expected private investment of €501 million. Due to the nature of the projects ('greenfield', rural areas, market-failure), the Connecting Europe Broadband Fund is de facto acting as a business angel for most of them.
- One lesson learnt is that future financial vehicles should have a broader and more flexible scope for strategic investment so as to address policy needs as they emerge. This flexibility is needed to support a sector like digital, which is evolving very rapidly in terms of technologies and markets.

Concrete examples of achievements

307	3	2	600 megawatts	2.6 billion m^3	93
pilot multistandard fast chargers deployed in 2019 (administrative closure in 2020) across Belgium, Czechia, Germany and Slovakia with a view to future roll-out.	remote tower services deployed for low-traffic airports in Sweden in 2019 (administrative closure in 2020), paving the way for future EU deployment.	sections of the German inland waterway network improved in 2019 (administrative closure in 2020) along the Lower-Havel Waterway and the Elbe–Havel Canal, enabling the passage of fully loaded, large self-propelled barges and push barges with double-layered container loads.	of transmission capacity added at the border between Estonia and Latvia with the completion of the Estonia–Latvia third electricity interconnection. This will further facilitate the integration of renewable energy sources into the grid.	of natural gas per year: this is the capacity of the new liquefied natural gas terminal in Krk (Croatia) that was completed in 2020. It will enhance the diversification and security of the region's natural gas supply.	projects in the 27 Member States use the eHealth digital service infrastructure, enabling the movement of health data across national borders, ensuring the continuity of care and the safety of citizens seeking healthcare outside their home country and enabling the pooling of EU-wide medical expertise to treat rare diseases.