

Brussels, 18 December 2025
(OR. en)

16947/25

ECOFIN 1763
UEM 641
ECB

COVER NOTE

From: Secretary-General of the European Commission, signed by Ms Martine
DEPREZ, Director

date of receipt: 8 December 2025

To: Ms Thérèse BLANCHET, Secretary-General of the Council of the
European Union

No. Cion doc.: SWD(2025) 419 final

Subject: PART 1/2 COMMISSION STAFF WORKING DOCUMENT NGEU
Green Bonds Allocation and Impact report 2025

Delegations will find attached document SWD(2025) 419 final.

Encl.: SWD(2025) 419 final



Brussels, 9.12.2025
SWD(2025) 419 final

PART 1/2

COMMISSION STAFF WORKING DOCUMENT

NGEU Green Bonds Allocation and Impact report 2025

#NextGenerationEU

Green Bonds

Allocation and Impact Report **2025**



DISCLAIMER

Nothing on this report constitutes an offering for sale of securities.

Any person who offers or sells securities issued by the European Union or the European Atomic Energy Community has the responsibility of acting in accordance with all applicable laws and regulations including selling restrictions and rules regarding suitability of investments. The fact that information about a particular issue of securities is given in this report does not mean that those securities are permitted investments under such laws and regulations.

Investing in securities carries risks, especially in the case of structured or long-dated securities. Financial intermediaries who recommend investments in securities issued by the European Union or the European Atomic Energy Community should ensure that the investors understand the risks attached to such investments.

The European Commission is not liable for any consequence stemming from the reuse of this publication.

Luxembourg: Publications Office of the European Union, 2025

© European Union, 2025



The reuse policy of European Commission documents is implemented based on Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightsholders.

Photo credits:

Cover: bottom: ©Photofex, Adobe Stock, 2025; left: ©Curioso.Photography, Adobe Stock, 2025; right: ©Robert, Adobe Stock, 2025;

Page 11: bottom: ©dan-belitsky, Adobe Stock, 2025; left: ©balipadma, Adobe Stock, 2025; right: ©brizmaker, Adobe Stock, 2025;

Page 17: top: ©Roman Babakin, Adobe Stock, 2025; left: ©agnormark, Adobe Stock, 2025; right: ©Kletr, Adobe Stock, 2025;

Page 23: bottom: ©Trygve, Adobe Stock, 2025; left: ©9dreamstudio, Adobe Stock, 2025; top: ©Juver, Adobe Stock, 2025;

Page 33: bottom: ©scharfsinn86, Adobe Stock, 2025; right: ©marlyne, Adobe Stock, 2025; top: ©TommyStockProject, Adobe Stock, 2025;

Page 39: bottom: ©Алексей Голуб, Adobe Stock, 2025; left: ©Brian Jackson, Adobe Stock, 2025; right: ©Lightfield studios, Adobe Stock, 2025;

Page 54: top: ©Kletr, Adobe Stock, 2025; left: ©nblxer, Adobe Stock, 2025; right: ©Daisy Daisy, Adobe Stock, 2025;

Page 64: top: ©Nuthawut, Adobe Stock, 2025; left: ©rogerphoto, Adobe Stock, 2025; right: ©grapestock, Adobe Stock, 2025

PDF
Print

ISBN 978-92-68-33233-7
ISBN 978-92-68-33234-4

doi: 10.2761/8167958
doi: 10.2761/3509353

KV-01-25-041-EN-N
KV-01-25-041-EN-C

Foreword



I am delighted to present to you the 2025 edition of the NextGenerationEU Green Bonds annual allocation and impact report.

This report comes precisely a year after I took over the responsibility for the EU borrowing operations. Over this period, I have experienced first-hand the role of NextGenerationEU Green Bonds in supporting green investments and reforms - allowing investors and markets to be part of the solution.

Only four years after the first NextGenerationEU Green Bond issuance, the EU has become one of the largest issuers of green bonds globally. Backed by reporting of green expenditure from Member States, NextGenerationEU Green Bonds reached a volume of EUR 75.1 billion outstanding as of 1 August 2025, the cut-off date of this report, and increased to EUR 78.5 billion by early December 2025.

Expenditure, financed from the sale of NextGenerationEU Green Bonds, has an impact across the entire EU: it finances investments in areas such as clean transport, renewable energy, energy efficiency, and biodiversity. It improves our climate. Thanks to the financing provided by NextGenerationEU Green Bonds, 14.0 million tonnes of CO₂e / year are estimated to be avoided based on milestones and targets already implemented by EU Member States. A full roll out of the currently planned expenditure (standing on 1 August 2025 at EUR 262.8 billion) will increase further this climate impact, reducing the EU's greenhouse gas emissions (GHG) by 53.4 million tonnes of CO₂ per year, or 1.5% of the aggregate 2022 EU GHG emissions.

As this report shows, reported expenditure from Member States on green bond eligible projects increased by almost 50% between 1 August 2024 and 1 August 2025, reaching a total of EUR 64.9 billion. After the cut-off date of this report, an additional EUR 15 billion has been reported. At the time of writing, Recovery and Resilience Plans are under review for a number of Member States, with potential impacts also on the amounts of expenditure eligible for financing through NextGenerationEU Green Bonds.

As noted in the June 2025 Communication on NextGenerationEU - The road to 2026, we count on Member States to review the implementation state of their climate related projects and ensure that their reporting is timely and up to date. Significant further reporting is needed to be able to reach the issuance levels envisaged at the start of the NGEU Green Bond programme.

This annual report delivers on our commitment to transparency and illustrates how NextGenerationEU Green Bonds contribute to the climate transition.

Piotr Serafin

COMMISSIONER | Budget, Anti-Fraud and Public Administration

P. Srafini

Table of contents

Executive summary	12
1. Introduction	15
2. The NGEU Green Bond Pool	20
3. Allocation of NGEU Green Bond proceeds	27
4. EU Taxonomy alignment	39
5. Climate Impact of NGEU Green Bond proceeds	45
6. Case studies of investments financed by NGEU Green Bonds	62
7. Limited Assurance Report.....	71

Abbreviations

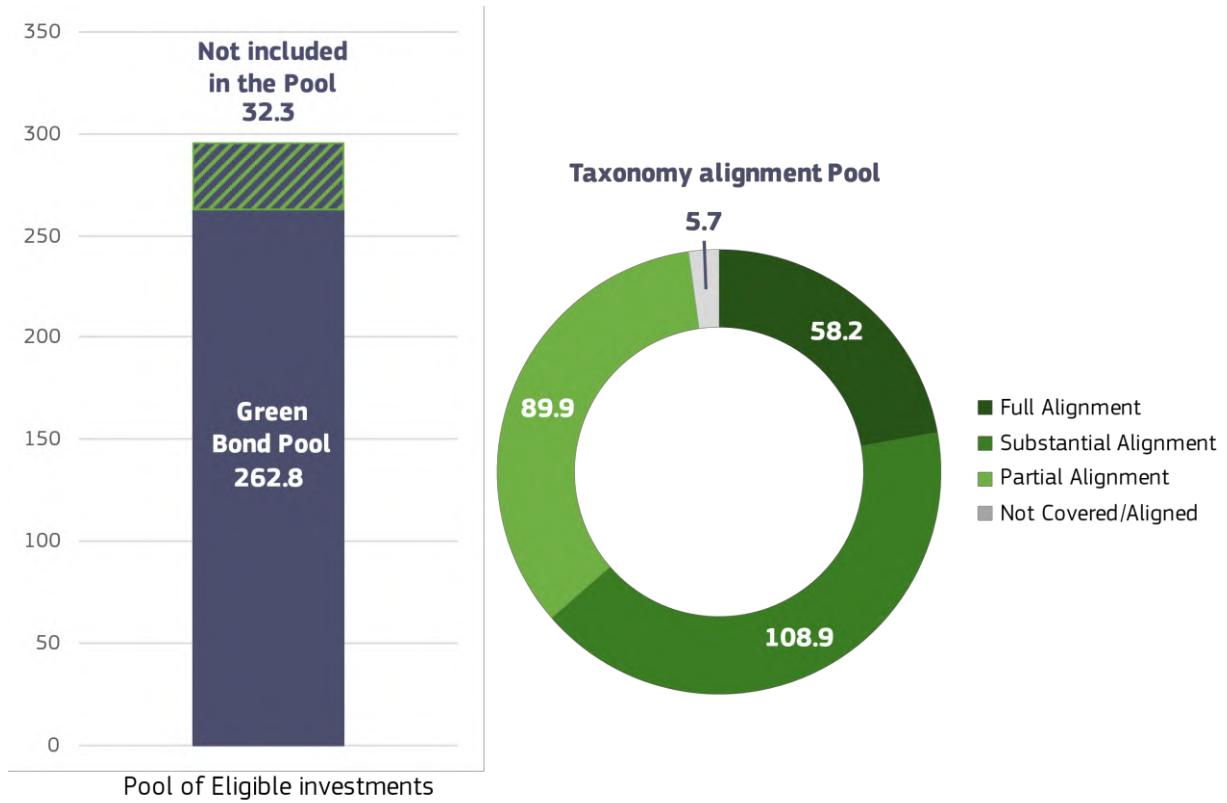
CO2e	Carbon dioxide equivalent
DNSH	Do-No-Significant-Harm
ERTMS	European Rail Traffic Management System
FIs	Financial instruments
GHG	Greenhouse gas
ICMA	International Capital Market Association
IF	Intervention Field
NGEU	Next Generation EU
RRF	Recovery and Resiliency Facility
RRP	Recovery and Resilience Plan
SCC	EU Taxonomy Substantial Contribution Criteria
SDG	UN Sustainable Development Goals
TSC	EU Taxonomy Technical Screening Criteria

Table 1: Key Figures

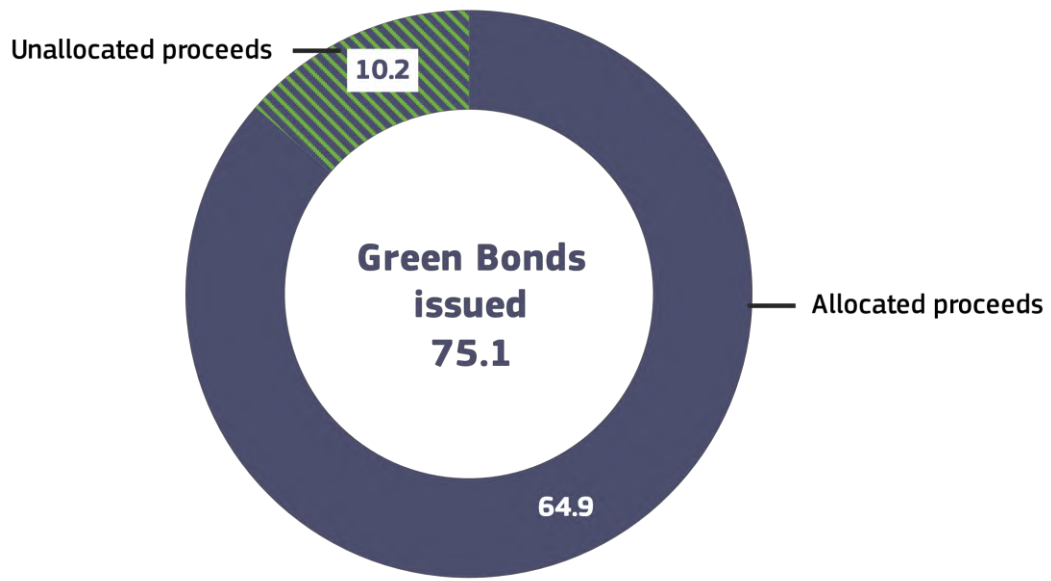
Key Metric	Definition	Ref. Page	As of 1 August 2025	As of 1 August 2024
NGEU Green Bonds Issued Amount [EUR]	Funds raised from capital markets via NGEU Green Bonds to finance NGEU green expenditure.	Pg.26	75,081,000,000	60,231,000,000
NGEU Reported Expenditure (allocated proceeds) [EUR]	Expenditure reported by Member States that is eligible for allocation of NGEU Green Bond.	Pg.27	64,894,265,889	44,017,776,775
Unallocated Proceeds [EUR]	The difference between NGEU Green Bonds issued and NGEU Reported Expenditure	Pg.30	10,186,734,111	16,213,223,225
NGEU Green Bond Pool [EUR]	Total planned expenditure in Member States' Recovery and Resilience Plans that is assessed to be eligible for NGEU Green Bonds financing.	Pg.17	262,768,768,109	264,580,424,661
EU Taxonomy Alignment [%]	Share of NGEU Green Bond Pool that is assessed to be aligned with the EU Taxonomy	Pg.33	Full: 22.1% Substantial: 41.5% Partial: 34.2% Not Aligned/ Covered: 2.2%	Full: 25.5% Substantial: 37.9% Partial: 33.6% Not Aligned/ Covered: 3.0%
Estimated Expected Impact [tCO2e/year]	Estimated expected quantifiable tonnes of CO ² equivalent avoided per year based on full implementation of NGEU Green Bond Pool	Pg.41	53,393,052	54,747,076

Realised Impact [tCO2e/year]	Estimated quantifiable tones of CO ² equivalent avoided per year based on implemented milestones and targets	Pg.42	14,007,295	1,481,276
---------------------------------	---	-----------------------	------------	-----------

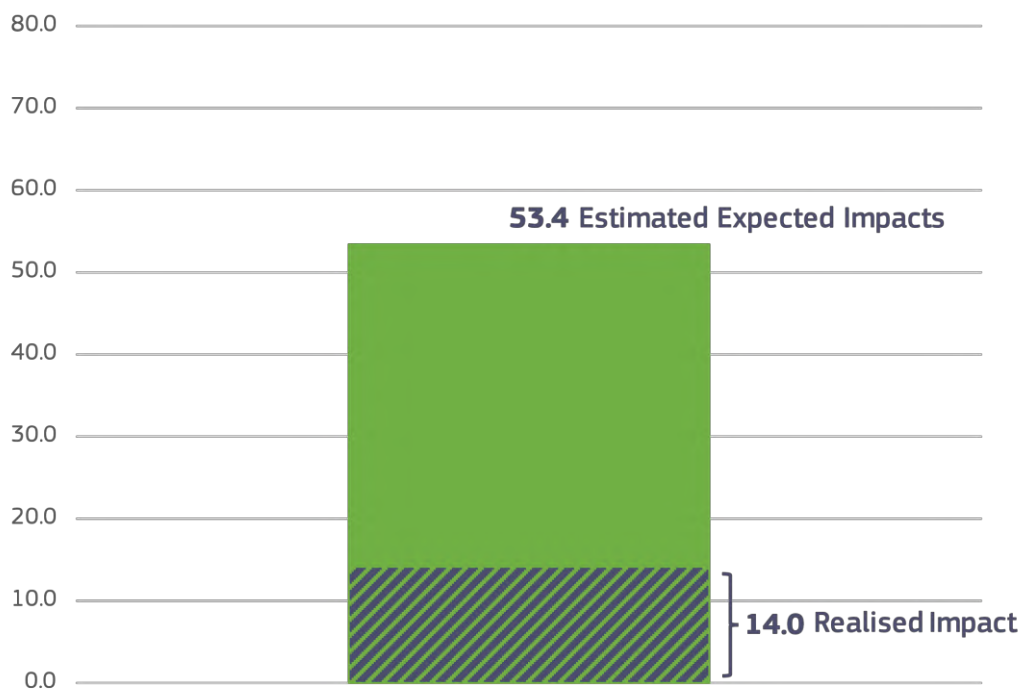
Graph 1a - Eligible NGEU Green Bond Pool with EU Taxonomy Alignment, (as of 1 August 2025, EUR billion)



Graph 1b: Green Bond Issuance and Allocated Proceeds (as of 1 August 2025, EUR billion)



Graph 2: Climate impact of NGEU Green Bond proceeds (mtCO2e/year)



Executive summary

Under the NextGenerationEU (NGEU) instrument at least 37% of spending in Member States' Recovery and Resilience Plans (RRPs) must be used for sustainable investments and reforms in areas addressing climate change. Proceeds from NGEU Green Bonds are used to finance these investments.

This report constitutes the annual update to investors and stakeholders on the allocation of proceeds from the issuance of NGEU Green Bonds and their estimated realised and expected climate impacts. The report builds on previous NGEU Green Bonds Allocation and Impact Reports (December 2022,¹ December 2023,² and November 2024³), and **presents data based on a cut-off date of 1 August 2025**. Given this cut-off date, this report does not reflect changes in Member States' RRP aimed at streamlining these plans and confirming the expected use of the remaining available financial allocations ahead of the last payment requests under the Recovery and Resilience Facility (RRF) in 2026 (with potential impacts also on the NGEU Green Bond Pool). As new information becomes available over the coming months the Commission will report on the impact of these changes through its regularly updated online NGEU Green Bonds Dashboard.⁴

As for previous annual editions, this report has been subject to a limited assurance assessment by an independent auditor of the information pertaining to allocation of NGEU Green Bond proceeds and realised impact.

KEY DEVELOPMENTS BETWEEN AUGUST 2024 AND AUGUST 2025:

- The Pool of expenditure in Member States' Recovery and Resilience Plans that could be eligible for NGEU Green Bond financing assuming full implementation of the plans (NGEU Green Bond Pool), remained stable at EUR 262.8 billion on 1 August 2025 compared to the EUR 264.6 billion on 1 August 2024. 'Clean transport & infrastructure' (EUR 71.6 billion), 'Energy efficiency' (EUR 67.9 billion) and 'Clean energy & network' (EUR 62.2 billion) remained the three largest categories in the NGEU Green Bond Pool as it stood on 1 August 2025.
- Reported expenditure (allocated proceeds) from the Member States on green bond eligible projects reached a total of EUR 64.9 billion, increasing by EUR 20.9 billion between 1 August

¹ https://commission.europa.eu/system/files/2022-12/SWD_2022_442_F1_STAFF_WORKING_PAPER_EN_V4_P1_2417689.PDF

² <https://op.europa.eu/en/publication-detail/-/publication/a07eed09-94b8-11ee-b164-01aa75ed71a1/language-en?WT.mc.id=Searchresult&WT.ria.c=55576&WT.ria.f=7664&WT.ria.ev=search&WT.URL=https%3A/commission.europa.eu>

³ https://commission.europa.eu/document/download/abdee617-a078-4ee3-a3ec-20c7d32725b5_en?filename=NextGenerationEU%20Green%20Bonds%20Allocation%20and%20Impact%20Report%202024.pdf

⁴ [Dashboard - European Commission](#)

2024 and 1 August 2025. A total of 26 Member States (compared to 19 in 2024) reported expenditure financed by NGEU Green Bond proceeds.

- NGEU Green Bond issued increased by **EUR 14.9 billion**, remaining closely calibrated to the amount of eligible green expenditure reported by Member States over the same period. As a result, NGEU Green Bond issued stood at a total of EUR 75.1 billion: on 1 August 2025, with unallocated proceeds decreasing to EUR 10.2 billion (compared to EUR 16.2 billion on 1 August 2024).⁵
- **63.6%** of the NGEU Green Bond Pool continued to be assessed as **fully or substantially aligned to the EU Taxonomy** (2024: 63.4%).
- In terms of climate impact, the **realised impact is estimated at 14.0 million tonnes of CO₂e / year avoided** (versus only 1.5 million tonnes of CO₂e / year in 2024). This represents 26% of the total estimated expected impact following full implementation of the quantifiable.⁶ milestones and targets in the NGEU Green Bond Pool (which now stands at 53.4 million tonnes of CO₂e / year avoided, equivalent to 1.5% of the aggregate EU GHG emissions in the year 2022). The exponential increase in realised GHG emission reductions compared to last year reflects the extended lifespan of project implementation, where planning and administrative phases need to be completed before 'on the ground' implementation can take place.

⁵ As implementation of the NGEU programme is advancing, unallocated proceeds will continue to reduce in order to ensure that funds raised through NGEU Green Bond issuances remain close to realised eligible expenditure.

⁶ Due to methodological constraints impact calculations cover only approximately 49% of the entire investment Pool financed by NGEU Green Bonds.

Introduction



Introduction

As of 1 August 2025, the Commission has issued EUR 75.1 billion of NGEU Green Bonds. All NGEU Green Bonds are underpinned by the NGEU Green Bond Framework (Box 1) and aligned with the Green Bond Principles of the International Capital Market Association (ICMA).

This document constitutes the Commission's annual comprehensive report on the allocation of proceeds from the issuance of NGEU Green Bonds. It also presents the Commission's assessment of the estimated climate impacts of expected and realised investments financed by NGEU Green Bonds across EU Member States.

Building on the 2022⁷, 2023⁸ and 2024⁹ editions this report presents:

- (i) An update, on the amount and break-down of each Member State Recovery and Resilience Facility (RRF) expenditure that is eligible to receive financing from NGEU Green Bonds based on approved Recovery and Resilience Plans (RRPs). For the first time the report also includes an indicative alignment of the NGEU Green Bond Pool to NACE categories;
- (ii) The evolution of NGEU Green Bond issuances and how the net proceeds have been allocated;
- (iii) An update of the assessed EU Taxonomy alignment of the measures in the NGEU Green Bond Pool and of the allocated proceeds; and
- (iv) An update of the expected and realised climate impacts for the quantifiable parts of the expenditures in the NGEU Green Bond Pool.

As per previous years, information included in this report is based on a cut-off date of 1 August 2025.

This report is supplemented by an independent auditor's limited assurance report in respect of information relating to allocation of NGEU Green Bond proceeds and realised impact.

⁷ https://commission.europa.eu/system/files/2022-12/SWD_2022_442_F1_STAFF_WORKING_PAPER_EN_V4_P1_2417689.PDF

⁸ https://op.europa.eu/en/publication-detail/-/publication/a07eed09-94b8-11ee-b164-01aa75ed71a1/language-en?WT_mc_id=Searchresult&WT_ria_c=55576&WT_ria_f=7664&WT_ria_ev=search&WT_URL=https%3A//commission.europa.eu/

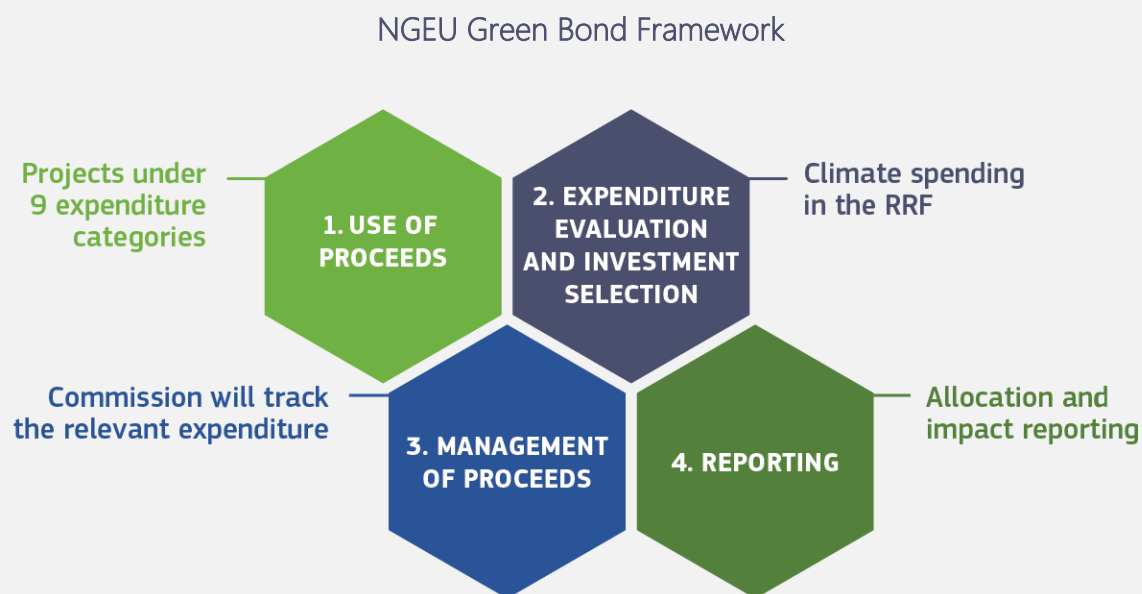
⁹ <https://op.europa.eu/en/publication-detail/-/publication/cfd70610-aae6-11ef-acb1-01aa75ed71a1/language-en>

Box 1: The NGEU Green Bond framework¹⁰ and Second Party Opinion

The NGEU Green Bond framework is a multi-level framework of control and assessment procedures which determine whether individual measures can receive financing from the proceeds of NGEU Green Bonds. All NGEU Green Bond issuances are underpinned by the NGEU Green Bond framework.

The framework, adopted in September 2021, ensures alignment with market standards on the use, management and reporting of proceeds through four main pillars:

1. **Use of proceeds:** NGEU Green Bond proceeds are used for nine predefined broad expenditure categories as set out in the NGEU Green Bond framework (see list below).
2. **Process for expenditure evaluation and investment selection:** Investments are, in a first instance, identified based on the 37% climate expenditure of Member States' RRFs.
3. **Management of proceeds:** Based on data submitted by EU Member States, net proceeds of the NGEU Green Bonds and of related payments is tracked by the Commission.
4. **Reporting:** Transparent reporting on the allocation of proceeds and on the impact of the expenditures financed by NGEU Green Bonds is provided by the Commission to investors and the wider public, including through annual [Allocation and Impact Reports](#) and the regularly updated on-line [NGEU Green Bond Dashboard](#).



¹⁰ https://commission.europa.eu/system/files/2021-09/nextgenerationeu_green_bond_framework.pdf

9 Expenditure Categories	SDG Alignment		
Clean energy & network	7 AFFORDABLE AND CLEAN ENERGY 	13 CLIMATE ACTION 	
Clean transport & infrastructure	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	11 SUSTAINABLE CITIES AND COMMUNITIES 	
Climate change adaptation	13 CLIMATE ACTION 		
Digital technologies supporting the green transition	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	
Energy efficiency	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	11 SUSTAINABLE CITIES AND COMMUNITIES 	
Nature protection, rehabilitation and biodiversity	6 CLEAN WATER AND SANITATION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 
Other	N/A		
Research and innovation activities supporting the green transition	8 DECENT WORK AND ECONOMIC GROWTH 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 

Water & waste management



Second Party Opinion Findings¹¹:

The alignment of the NGEU Green Bond Framework with the Green Bond principles of the International Capital Market Association (ICMA) has been reviewed by a second party opinion provider, Vigeo Eiris, now part of Moody's ESG Solutions.

Results of assessment:

1. Use of proceeds	Nine eligible green expenditure categories which contribute to nine of the Sustainable Development Goals (SDGs)	Vigeo Eiris ¹² opinion: Aligned ¹³
2. Expenditure evaluation and investment selection	NGEU Green Bonds will finance green investments and reforms of Member States' Recovery and Resilience Plans. Compliance with DNSH Principle is mandatory.	Vigeo Eiris opinion: Aligned
3. Management of proceeds	The Commission will track the net proceeds of all NGEU Green Bonds from issuance to allocation.	Vigeo Eiris opinion: Best Practices ¹⁴
4. Reporting	The European Commission commits to reporting on how the money is spent (allocation reporting) and the environmental impact of the investments (impact reporting)	Vigeo Eiris opinion: Best Practices

¹¹ Second party opinion available at [345f2b64-f959-482d-98c4-497418b164da_en](https://ec.europa.eu/easf/easf-portal/345f2b64-f959-482d-98c4-497418b164da_en)

¹² Vigeo Eiris is now part of Moody's

¹³ Vigeo Eiris determines alignment to ICMA Green Bond Principles on a scale, Not Aligned, Partially Aligned, Aligned and an additional category of Best Practices, when and issuer goes beyond standard criteria.

¹⁴ Vigeo Eiris determines alignment to ICMA Green Bond Principles on a scale, Not Aligned, Partially Aligned, Aligned and an additional category of Best Practices, when and issuer goes beyond standard criteria.



The NGEU Green Bond Pool

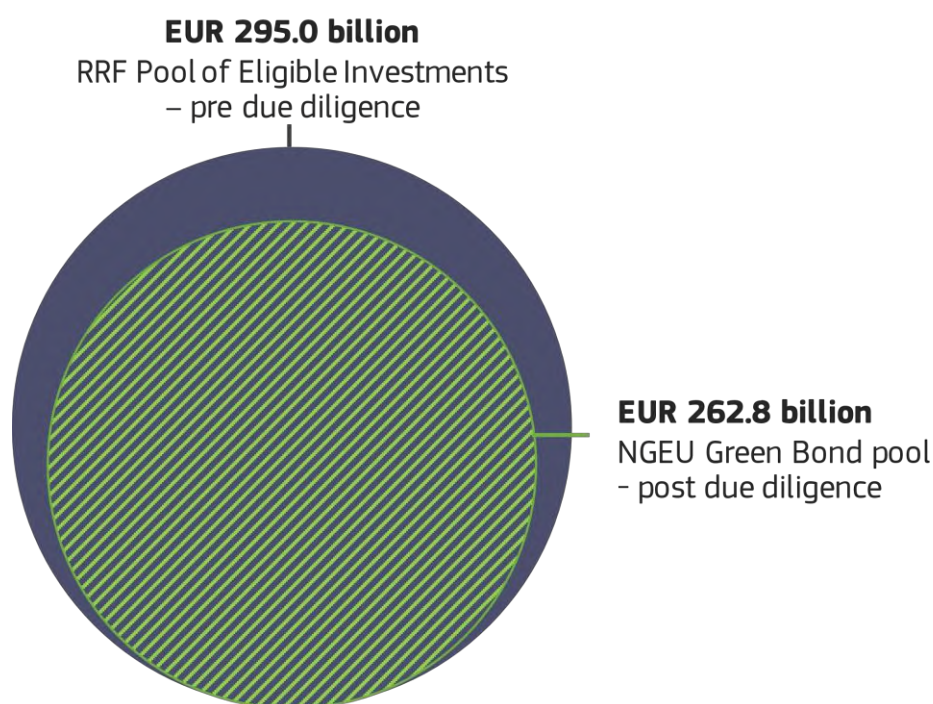
The NGEU Green Bond Pool

The NGEU Green Bond Pool reflects the amount of expenditure in Member States Recovery and Resilience Plans (RRPs) that is assessed to be eligible for NGEU Green Bond financing based on the NGEU Green Bond Framework, and assuming full implementation of the plans.

In determining the individual measures that are eligible for financing from NGEU Green Bonds, the Commission applies a multi-level framework of control and assessment procedures. This evaluation and selection entails:

1. screening of the climate relevant expenditures notified by Member States in their national RRFs, as part of EU Recovery and Resilience Facility (RRF).¹⁵
2. a second layer of in-house due diligence of measures aimed at ensuring that only measures that meet the conservative standards of the NGEU Green Bond framework are included in the pool of eligible measures (see Annex I).

Only measures passing the in-house due diligence are considered eligible for financing under the NGEU Green Bonds. In accordance with this control framework, no measures supporting energy generation from nuclear or from natural gas are included in the NGEU Green Bond Pool.



¹⁵ https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en

Taking into account revisions of RRP during the period 1 August 2024 to 1 August 2025, as of the cut-off date of 1 August 2025, the Pool of measures eligible for receiving financing under NGEU Green Bonds consists of EUR 262.8 billion¹⁶ of eligible assets (made up of 1,045 measures)¹⁷. This compares to EUR 264.6 billion as of 1 August 2024 (made up of 1,058 measures). The slight decrease in the Pool size is due to adjustments of some projected costs, revisions of existing measures by Member States and updates due diligence of some measures in the Pool¹⁸.

As of 1 August 2025, around 24% of the measures in the RRP with a positive climate coefficient is assessed to be falling under the implementation of 'Financial instruments'¹⁹. NGEU Green Bond issuances against these amounts will be subject to reporting from Member States and related implementing partners on the actual implementation of measures²⁰. This reporting may take place also beyond the end-2026 RRF deadline, in which case eligible expenditure will be reflected in NGEU Green Bond issuances under the planned refinancing phase of NGEU²¹.

NGEU GREEN BOND POOL SPLIT

'Clean transport & infrastructure' (EUR 71.6 billion), 'Energy efficiency' (EUR 67.9 billion) and 'Clean energy & network' (EUR 62.2 billion) remained the three largest categories in the NGEU Green Bond Pool.

Information on the breakdown of the Pool by expenditure category and Member State is included in the tables below. Following investor requests, a table with an illustrative split of the NGEU Green Bond Pool based on the standard NACE²² classification of Eurostat is also included for information. This split is based on a new sectoral database established for the purposes of the RRF and published

¹⁶ For non-Eurozone Member States, an exchange rate is specified in the Council Implementing Decision for the costing of measures in the RRP. When reporting on expenditures, non-Eurozone Member States report to the Commission in their local currency, a weighted exchange rates of all disbursement dates is used to convert the local currency amount to EUR.

¹⁷ While national RRP establish *measures* and *sub-measures* (e.g. due to geographical regions, splitting costs between green and digital sections, etc), a single term of 'measures' is used in this report for simplicity purposes.

¹⁸ As part of this due diligence the Commission assessed newly or re-assessed in the 2024-2025 period 121 measures (worth EUR 21.8 billion) from 18 Member States. The Commission determined that 59 of these re-assessed measures (worth EUR 4.3 billion) were not considered eligible to be included in the NGEU Green Bond Pool. The remaining 62 measures

(EUR 17.5 billion) are new or amended measures that were assessed to be eligible for inclusion in the total NGEU Green Bond Pool.

¹⁹ Example of financial instruments can be found here: [Financial instruments: equity, guarantees, and loans - European Commission](#)

²⁰ Reporting on investments implemented through Financial Instruments will be ensured through binding conditions laid down in the relevant agreements between the Member States and the implementing partner. This reporting will form the basis for the Commission's own assessment of the realisation of such climate-relevant investments against which NGEU Green Bonds can be issued.

²¹ In line with Article 5 of the [2020/2053 Own Resource Decision](#), new net borrowing under the NGEU programme will need to be completed by end 2026. However, the Commission will continue to execute borrowing operations in the form of roll overs of maturing existing liabilities after that date as part of the management of NGEU related borrowing. In that context the Commission can also consider issuing NGEU Green Bonds.

²² Nomenclature statistique des activités économiques dans la Communauté européenne

by the Commission in May 2025.²³ This analysis is not specific to the NGEU Green Bond eligible measures and hence presents only an indicative split based on available data.

²³ https://economy-finance.ec.europa.eu/publications/economic-impacts-recovery-and-resilience-facility-new-insights-sectoral-level-and-case-germany_en

Table 2: NGEU Green Bond Pool broken down by Expenditure Category (in EUR)

Expenditure Category	NGEU Green Bond Pool (as of 1 August 2025)	NGEU Green Bond Pool (as of 1 August 2024)
Clean energy & network	62,226,975,568	61,020,459,508
Clean transport & infrastructure	71,570,210,051	72,376,106,537
Climate change adaptation	7,267,994,582	7,301,397,751
Digital technologies supporting the green transition	386,092,983	444,981,838
Energy efficiency	67,863,655,596	67,759,575,211
Nature protection, rehabilitation and biodiversity	6,393,054,770	6,153,732,676
Other	5,365,765,261	7,520,337,611
Research and innovation activities supporting the green transition	20,533,779,184	20,568,882,665
Water & waste management	21,161,240,114	21,434,950,864
Grand Total	262,768,768,109	264,580,424,661

Table 3: NGEU Green Bond Pool broken down by Member State (in EUR)








Member State	Sum of NGEU Green Bond Pool (as of 1 August 2025)	Sum of NGEU Green Bond Pool (as of 1 August 2024)
 Austria	2,316,051,610	2,316,051,610
 Belgium	2,675,378,993	2,605,414,993
 Bulgaria	3,145,521,543	3,157,521,543
 Croatia	2,154,338,579	2,329,321,211
 Cyprus	539,450,765	517,730,164
 Czechia	3,331,640,191	3,396,549,661
 Denmark	734,461,787	764,336,503
 Estonia	546,280,000	546,280,000
 Finland	842,948,000	842,948,000
 France	17,468,829,083	17,468,829,083
 Germany	12,083,133,693	11,303,645,165
 Greece	12,702,718,559	12,621,483,552
 Hungary	4,641,113,217	4,641,113,217
 Ireland	572,049,000	572,049,000
 Italy	73,063,020,602	74,801,620,602
 Latvia	818,250,378	815,937,878
 Lithuania	1,428,745,275	1,412,898,275
 Luxembourg	45,600,000	60,500,000
 Malta	225,677,223	225,677,223
 Netherlands	3,518,087,550	3,517,576,000
 Poland	26,192,023,590	25,480,314,524
 Portugal	7,987,900,158	8,707,481,307
 Romania	12,715,943,850	12,715,943,850
 Slovakia	2,104,490,469	2,516,651,253
 Slovenia	944,357,833	1,271,793,887
 Spain	68,340,336,413	68,340,336,413
 Sweden	1,630,419,748	1,630,419,748
Grand Total	262,768,768,109	264,580,424,661

Table 4: Split of the NGEU Green Bond Pool broken down by the 2-digit NACE codes²⁴

2-digit NACE code	NGEU Green Bond Pool (as of 1 August 2025)
42 Civil engineering	104,567,406,461
41 Construction of buildings	57,392,738,247
27 Manufacture of electrical equipment	25,987,313,924
29 Manufacture of motor vehicles, trailers and semi-trailers	12,241,083,419
28 Manufacture of machinery and equipment n.e.c.	10,865,162,740
30 Manufacture of other transport equipment	10,265,221,860
64 Financial service activities, except insurance and pension funding	10,084,000,000
72 Scientific research and development	9,037,641,139
62 Computer programming, consultancy and related activities	4,508,063,070
26 Manufacture of computer, electronic and optical products	3,416,315,092
Remaining codes combined	14,403,822,157
Grand Total	262,768,768,109

²⁴ Due to the study slightly preceding the cut-off date of 1 August 2025, 10 out of 1,370 measures were not tagged by NACE codes. Only two of these measures are included in the Pool of eligible measures (corresponding to the EUR 609.8 million). The Commission has aggregated these two measures under the 'Remaining costs combined'. The full split to two-digit NACE can be found in the *Supporting data files* available here: https://commission.europa.eu/strategy-and-policy/eu-budget/eu-borrower-investor-relations/analyses-and-reports_en#ngeu-green-bonds-reports



Allocation
of NGEU Green
Bond proceeds

Allocation of NGEU Green Bond proceeds

Under the RRF, and in line with the objectives-based nature of the programme, Member States can receive payments up to twice per year, after the fulfilment of their respective milestones and targets. Member States are also required to report to the Commission with each payment request the total cumulative expenditures incurred for the implementation of each reform and investment with a positive climate marker.²⁵ This requirement is set out in the financing and loan agreements between the Commission and Member States.

The Commission monitors closely the reporting of actual incurred expenditures by Member States, as a key input for the pace of NGEU Green Bond issuances while the NGEU Green Bond Pool represents the maximum amount to which the NGEU Green Bond proceeds can be allocated.

IMPLEMENTATION OF MILESTONES AND TARGETS

RRF financing includes a total of 7,047 milestones and targets. Of these the Commission has identified 2,012 milestones and targets (related to 1,045 individual measures or sub-measures) that can be directly linked to the EUR 262.8 billion worth of measures which are included in the NGEU Green Bond Pool.

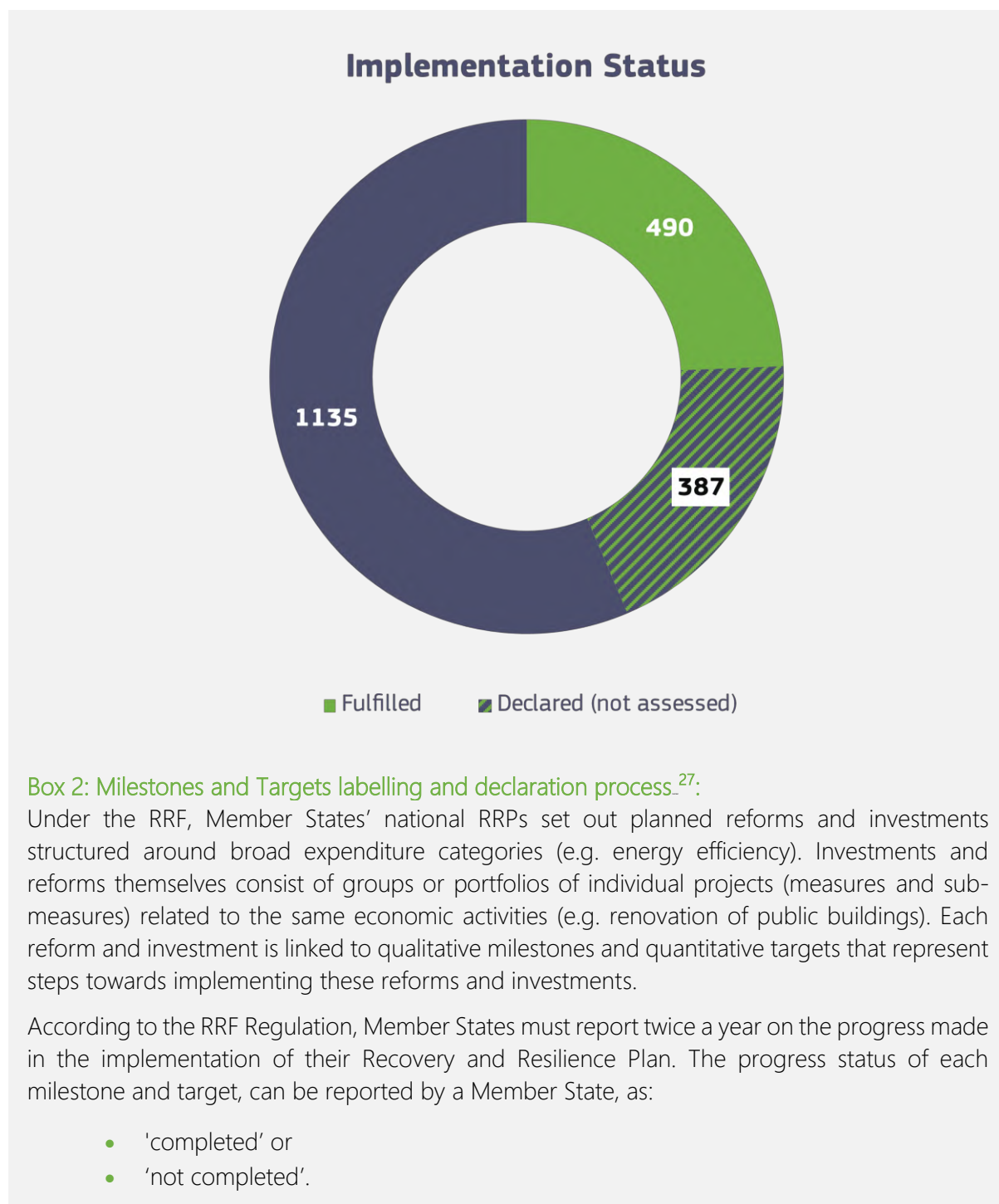
As of the cut-off date of 1 August 2025, out of the 2,012 milestones and targets linked to measures in the NGEU Green Bond Pool, 490 are considered as 'Fulfilled' across 25 Member States (compared to 332 across 22 Member States in 2024). These are associated mostly to measures that are defined by the NGEU Green Bond Framework as contributing towards improved '*Energy Efficiency*' (e.g. energy Efficient Renovation of private or public buildings) and '*Clean transport & infrastructure*' (e.g. improved transportation links). A number of these milestones are linked to enabling implementation measures, such as signature of contracts to commence construction.

A further 387 of these milestones and targets have been declared as 'completed' by Member States but are still subject to assessment by the Commission. However, it is noted that the implementation status of milestones and targets is neither directly proportional to the financial envelope of reported expenditure, nor to the outputs implemented by a given Member State.²⁶

²⁵ The Commission relies on Member States data availability and quality. The Commission, in its institutional capacity, cannot directly assess the progress of the measures in the Member States. This report is constructed based on available and assessed data as they were presented and submitted to the Commission by the Member States.

²⁶ Milestones and targets are reported by Member States within a 12-month window, which is followed by the Commission assessment. In addition, the number of milestones and targets does not necessarily correspond to the financial envelope of related measure (or sub-measure).

Graph 3: Implementation status of milestones and targets directly linked to the NGEU Green Bond Pool (as of 1 August 2025)






























²⁷ [Bi-annual Reporting Factsheet – Spring 2023](#)

Milestones and targets which Member States declare as 'completed' and have already been assessed as satisfactorily fulfilled by the Commission in the context of a payment request, are labelled for the purposes of this report as 'Fulfilled'. Milestones and Targets that are 'Not completed' or 'Declared (not assessed)'²⁸, are presented in Figure 1 above.

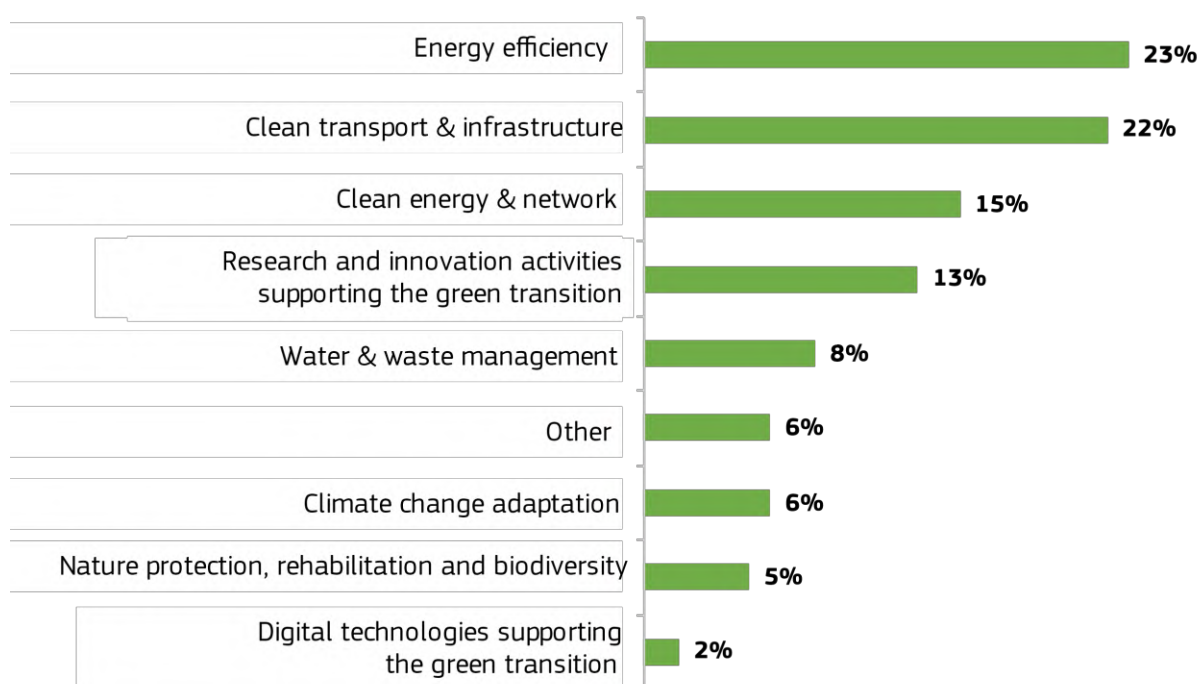
²⁸ Declared (not assessed) denotes Milestones and Targets declared 'completed' by Member States, but still under assessment by the Commission.

Table 5: Fulfilled milestones and targets by Member State (as of 1 August 2025)²⁹

Member State	Number of fulfilled milestones
 Austria	11
 Belgium	17
 Bulgaria	1
 Croatia	21
 Cyprus	12
 Czechia	35
 Denmark	20
 Estonia	19
 Finland	13
 France	48
 Germany	26
 Greece	49
 Hungary	0
 Ireland	12
 Italy	61
 Latvia	9
 Lithuania	14
 Luxembourg	2
 Malta	7
 Netherlands	6
 Poland	0
 Portugal	35
 Romania	16
 Slovakia	9
 Slovenia	14
 Spain	27
 Sweden	6
Total	490

²⁹ Concerns only milestones and targets for measures included in the NGEU Green Bond Pool.

Graph 4: Fulfilled milestones and targets per Expenditure Category³⁰



NGEU GREEN BOND ISSUANCES

As of 1 August 2025, the European Commission had issued EUR 75.1 billion of NGEU Green Bonds across five different maturity points (2033, 2037, 2043, 2048 and 2050 maturities). This represents an increase of EUR 14.9 billion (or 24.7%), relative to the EUR 60.2 billion issued at the time of the 2024 report. All NGEU Green Bond issuances have been met with strong demand in both syndicated transactions and auctions, indicating a continuous strong investor appetite. More details on the NGEU Green Bond issuances are presented in the table below.

Table 6: Summary of NGEU Green Bond issuances

Type	Issue format	Transaction date	Maturity	Volume issued (EUR million)	Yield	ISIN
Grand Total as of 01.08.2025 (EUR million)				75,081		
TAP	Auction	02.06.2025	04/02/2033	1,850	2.748%	EU000A3K4DW8
TAP	Syndication	11.02.2025	04/02/2050	5,000	3.357%	EU000A3K4EU0
TAP	Syndication	19.11.2024	04/02/2043	3,000	3.260%	EU000A3K4DG1
TAP	Syndication	10.09.2024	04/02/2050	5,000	3.262%	EU000A3K4EU0

³⁰ Due to structural characteristics of RRF milestones and targets this chart should be interpreted as illustrative only and does not fully align with the numbers in Table 5.

Type	Issue format	Transaction date	Maturity	Volume issued (EUR million)	Yield	ISIN
Grand Total as of 01.08.2024 (EUR million)				60,231		
Tap	Auction	27.05.2024	04.02.2043	2,027	3.345%	EU000A3K4DG1
Tap	Auction	29.04.2024	04.02.2033	2,293	2.952%	EU000A3K4DW8
New Bond	Syndication	19.03.2024	04.02.2050	7,000	3.339%	EU000A3K4EU0
Tap	Auction	27.11.2023	04.02.2033	1,731	3.182%	EU000A3K4DW8
Tap	Syndication	14.11.2023	04.02.2048	3,000	3.759%	EU000A3K4DM9
Grand Total as of 01.08.2023 (EUR million)				44,180		
Tap	Auction	17.04.2023	04.02.2033	1,732	3.087%	EU000A3K4DW8
Tap	Syndication	28.03.2023	04.02.2048	6,000	3.348%	EU000A3K4DM9
Tap	Auction	28.11.2022	04.02.2043	1,000	2.845%	EU000A3K4DG1
New Bond	Syndication	15.11.2022	04.02.2033	6,000	2.820%	EU000A3K4DW8
Tap	Auction	24.10.2022	04.02.2037	1,450	3.378%	EU000A3K4C42
Grand Total as of 19.10.2022 (EUR million)				27,998		
New Bond	Syndication	21.06.2022	04.02.2048	5,000	2.713%	EU000A3K4DM9
Tap	Auction	25.04.2022	04.02.2037	2,499	1.626%	EU000A3K4C42
New Bond	Syndication	05.04.2022	04.02.2043	6,000	1.370%	EU000A3K4DG1
Tap	Auction	24.01.2022	04.02.2037	2,499	0.374%	EU000A3K4C42
New Bond	Syndication	12.10.2021	04.02.2037	12,000	0.450%	EU000A3K4C42

ALLOCATED PROCEEDS

Allocated proceeds refers to the expenditure reported by Member States that is related to measures eligible for financing from NGEU Green Bond proceeds.

As of 1 August 2025, 26 Member States (compared to 19 in 2024) have reported EUR 64.9 billion of expenditures related to measures eligible for NGEU Green Bond financing (versus EUR 44.0 billion in 2024). This reported expenditure represents 51% of the expected eligible expenditure of EUR 126.1

billion, based on actual payments to Member States and the share of green bond eligible expenditure in the respective RRP, indicating a lag in green expenditure reporting from Member States relative to total disbursements ³¹.

Similarly to 2024, most of the reported expenditure is incurred in the expenditure categories of 'Energy efficiency' (EUR 24.8 billion), 'Clean transport & infrastructure' (EUR 22.7 billion) and 'Clean energy & network' (EUR 5.8 billion). This is very closely aligned with the fulfilled RRF milestones and targets.

Table 7: Reported expenditure by Expenditure Category (in EUR)

Expenditure Category	Sum of NGEU Reported Expenditure (1 August 2025)	Sum of NGEU Reported Expenditure (1 August 2024)
Clean energy & network	5,809,144,352	3,825,830,620
Clean transport & infrastructure	22,673,647,603	14,865,644,023
Climate change adaptation	2,352,700,920	1,394,823,279
Digital technologies supporting the green transition	34,358,000	6,416,000
Energy efficiency	24,818,456,325	18,505,514,965
Nature protection, rehabilitation and biodiversity	1,711,264,892	649,660,218
Other	1,073,222,721	1,020,371,778
Research and innovation activities supporting the green transition	3,865,085,055	2,229,875,333
Water & waste management	2,556,386,021	1,519,640,560
Grand Total	64,894,265,889	44,017,776,775

Graph 5: Reported expenditure by Expenditure Category out of the total NGEU Green Bond Pool (in EUR billion, as of 1 August 2025)

³¹ By 1 August 2025, Member States have received EUR 195.5 billion in RRF grant and EUR 111.2 billion loan disbursements

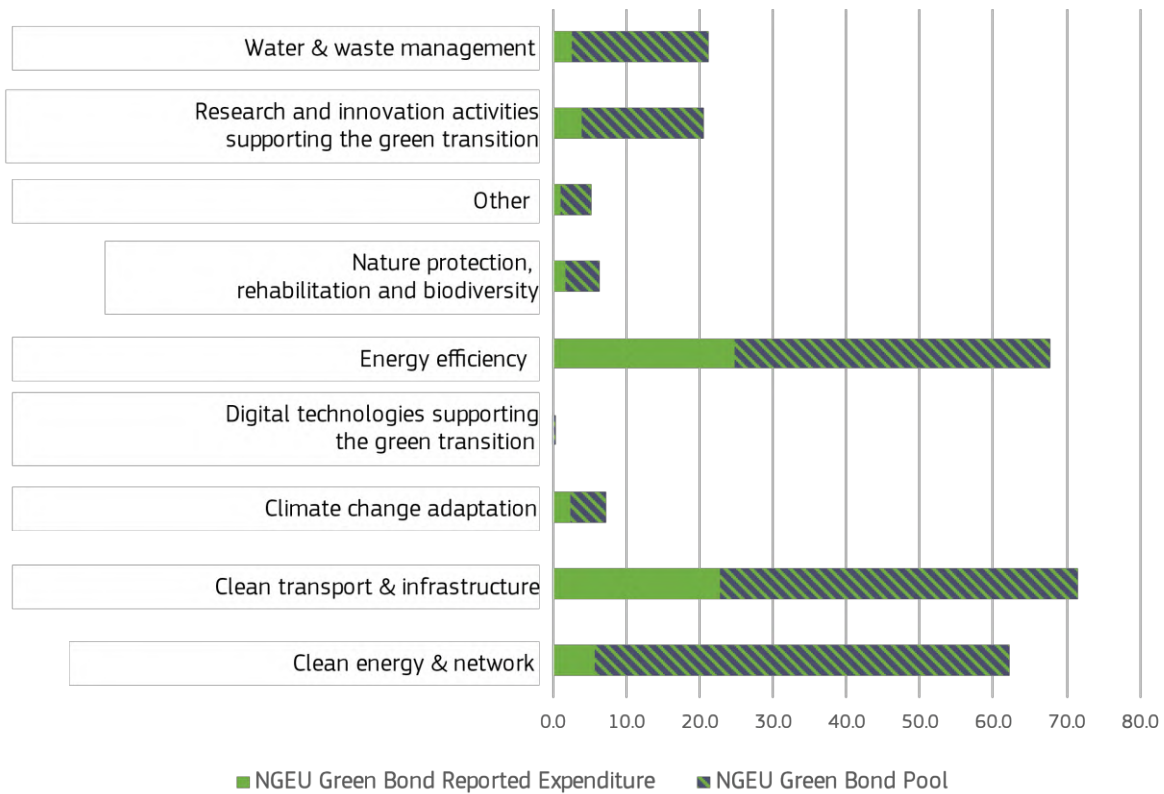


Table 8: Reported expenditure by Member State (in EUR)³²

Member States	Sum of NGEU Reported Expenditure (1 August 2025)	Sum of NGEU Reported Expenditure (1 August 2024)
Austria	184,638,000	184,638,000
Belgium	915,612,140	0
Bulgaria	404,305,774	0
Croatia	545,696,962	321,138,088
Cyprus	144,204,000	75,802,000
Czechia	2,022,847,666	1,368,894,623
Denmark	280,158,139	212,279,450
Estonia	235,460,000	142,310,000
Finland	135,550,000	27,252,000
France	12,455,860,000	10,618,788,000
Germany	6,666,467,000	2,171,964,000

³² Further information on the allocation of proceeds across intervention fields and across Member States can be found in the Supporting data files available at the publication webpage of the Annual NGEU Allocation and Impact Reports webpage (https://commission.europa.eu/strategy-and-policy/eu-budget/eu-borrower-investor-relations/analyses-and-reports_en#ngeu-green-bonds-reports)

 Greece	6,208,162,331	6,025,954,614
 Ireland	212,530,000	55,182,000
 Italy	24,969,512,000	17,829,904,000
 Latvia	149,450,000	0
 Lithuania	91,000,000	64,000,000
 Luxembourg	18,800,000	960,000
 Malta	64,226,000	34,232,000
 Netherlands	1,239,832,000	0
 Poland	796,975,337	0
 Portugal	2,585,079,314	1,631,000,000
 Romania	54,780,056	0
 Slovakia	415,444,180	4,790,000
 Slovenia	211,949,036	123,674,000
 Spain	3,125,014,000	3,125,014,000
 Sweden	760,711,955	0
Grand Total	64,894,265,889	44,017,776,775

UNALLOCATED PROCEEDS

Unallocated proceeds are the difference between the funds raised from NGEU Green Bond issuances and Member States' reported eligible green expenditures (allocated proceeds). As of 1 August 2025, unallocated proceeds stand at EUR 10.2 billion, EUR 6.0 billion lower than the EUR 16.2 billion as of 1 August 2024. These unallocated proceeds are supported by a remainder of the Pool of NGEU Green Bond eligible measures (of EUR 197.9 billion) which are expected to receive NGEU Green Bonds allocation as implementation of the NGEU programme progresses.

The decreasing scale of unallocated proceeds reflects the robust risk management processes, which ensures calibration of NGEU Green Bond issuances so that there is no risk of issuing more NGEU Green Bonds than can eventually be allocated to reported green expenditures³³. As implementation of the NGEU programme is advancing, these processes ensure that unallocated proceeds will diminish (see Table 9) with NGEU Green Bond issuances and realised green expenditure reported by Member States converging over time. The scale and pace of issuance of NGEU Green Bonds

³³ Before being disbursed to Member States or other EU programmes, NGEU Green Bond proceeds, like all NGEU related bond proceeds, are routed through the Commission's cash account at the European Central Bank (ECB). While all Green Bond proceeds must eventually be allocated to expenditures on Green Bond eligible measures as reported by Member States, proceeds may also be temporarily used for other EU programmes or by Member States for other measures in their budget. The Commission endeavours to allocate all Green Bond proceeds within 24 months of issuance and is currently well on track to do so.

hence depends on the scale and pace at which Member States report green expenditures over the lifetime of the programme (including post end-2026).

Table 9: Progression of NGEU Green Bonds Issuances and allocated/unallocated proceeds³⁴

Year (as of 1 August)	NGEU Green Bonds Issued (EUR million)	Allocated proceeds (EUR million)	Unallocated Proceeds (EUR million)
2025	75,081	64,894	10,187
2024	60,231	44,018	16,213
2023	44,180	21,022	23,158
2022	27,998	13,528	14,470

³⁴ The cut-off date of 2022 report was 19 October, while for other years it was 1 August.

Box 3: Refinancing and co-financing

Under the NGEU Green Bond framework, up to 100% of the NGEU Green Bond issuance proceeds can be used to refinance eligible expenditure. In the context of NGEU Green Bonds, a payment from the Commission to Member States is considered to be refinancing when a Member State pays for the measure first and receives the money at a later stage from the Commission. Based on the timing of expenditure reported by Member States and taking into account the revised reported expenditure, refinancing of reported expenditure amounts to a total of EUR 15.7 billion or 24.2% of reported expenditures (compared to EUR 15.1 billion in 2024)

³⁵.

In addition, under the NGEU Green Bond Framework, it is possible for measures to receive financing from sources other than NGEU Green Bond proceeds. This relates to (i) measures that are tagged with a climate coefficient below 100% (but higher than 0%), where the remainder of expenditure is financed from conventional NGEU related bond issuances; and (ii) measures where Member States finance eligible NGEU Green Bond measures partially from their own national budgets. Based on reporting by Member States by 1 August 2025, the financing from these two additional sources corresponds to EUR 21.2 billion (compared to EUR 12.2 billion on 1 August 2024). EUR 12.6 billion of this co-financing is co-financing from Member States with EUR 8.6 billion linked to co-financing by conventional EU Bonds (see Annex IV). The Commission does not receive information from Member States to be able to identify other sources of financing from third parties, such as development banks or agencies.

Further details on the methodology applied for the calculation of refinancing, pre-financing and co-financing can be found in the NGEU Green Bonds Allocation Report published in December 2022³⁶.

³⁵ Note that the 2024 report erroneously noted the level of refinancing as EUR 21.1bn. However, this number included a misclassification of EUR 6.0bn of reported green expenditures from Greece as re-financing rather than pre-financing.

³⁶ All past reports available here: https://commission.europa.eu/strategy-and-policy/eu-budget/eu-borrower-investor-relations/analyses-and-reports_en#ngeu-green-bonds-reports



EU Taxonomy
alignment

EU Taxonomy alignment

NGEU Green Bond issuances take place outside the EU Taxonomy as the RRF Regulation, which fixes the parameters for eligible NGEU Green Bond expenditure, predated the delegated acts for the EU Taxonomy. Nevertheless, the Commission has committed to reporting on its assessment of the alignment of the NGEU Green Bond expenditures with the EU Taxonomy.

In assessing EU Taxonomy alignment, the Commission relies on information contained in the RRF regulation's Annex VI on climate tracking intervention fields as well as the technical guidance on the application of the DNSH principle in order to compare the alignment of measures supported under the RRF Regulation with the EU Taxonomy Technical Screening Criteria (TSC). It also takes into account the Commission Delegated Regulation (EU) 2021/2139 covering climate change mitigation, climate change adaptation and the 'do no significant harm' principle (see Box 4).

In line with the methodology used in previous years, **63.6%** of the NGEU Green Bond Pool is assessed to be fully or substantially aligned with the EU Taxonomy of both SCC and additional quantifiable DNSH criteria (compared to 63.4% in 2024). A further **34.2%** of the NGEU Green Bond Pool is assessed to be partially aligned (compared to 33.6% in 2024) and the remaining **2.2%** is not covered or aligned (compared to 3.0% in 2024).

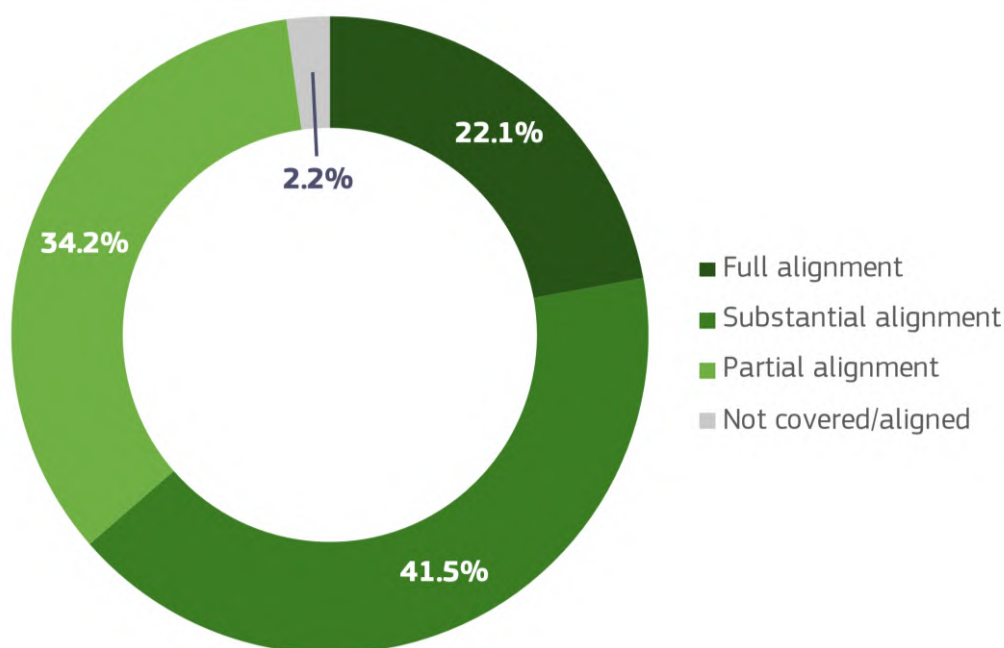
The stable nature of these numbers reflects the limited changes in the NGEU Green Bond Pool and the absence of new legislation that would warrant a holistic revision³⁷ of EU Taxonomy alignment assessment³⁸.

³⁷ Nevertheless, the Commission continued to update its Taxonomy assessment when deemed necessary, including in cases of new information on practical challenges in fulfilling EU Taxonomy DNSH criteria. This includes a change of classification for projects financing zero-emission vehicles in ADHOC and 074 Intervention Fields from full to partial alignment given limited available information to justify full taxonomy alignment for these projects. This change does not arise from changes in projects financed by the NGEU Green Bonds, but from more general market feedback on the practical requirements for full EU Taxonomy alignment for these specific type of projects.

³⁸ While the Omnibus I package published in February 2025 (https://finance.ec.europa.eu/publications/omnibus-i-package-commission-simplifies-rules-sustainability-and-eu-investments-delivering-over-eu6_en) is expected to also lead to changes in requirements for alignment of the EU Taxonomy Activities (https://finance.ec.europa.eu/publications/commission-cut-eu-taxonomy-red-tape-companies_en) these changes have not yet been adopted as of 1 August 2025. Such changes will be reflected in future report if appropriate.

Table 10: EU Taxonomy alignment of NGEU Green Bond Pool
(table in EUR million and chart in %, as of 1 August 2025)

	DNSH fully aligned	DNSH partially aligned	DNSH not covering specific EU taxonomy conditions
Full SCC alignment	14 intervention fields 58,197.7	5 intervention fields 41,428.2	4 intervention fields 47,283.6
Substantial SCC alignment	3 intervention fields 23,442.2	8 intervention fields 44,056.0	1 intervention field 13,200.9
Partial SCC alignment	0 intervention fields 0.0	10 intervention fields 20,741.2	5 intervention fields 8,683.1
Not SCC aligned			4 intervention fields 102.0
Not covered			4 intervention fields 5,633.9

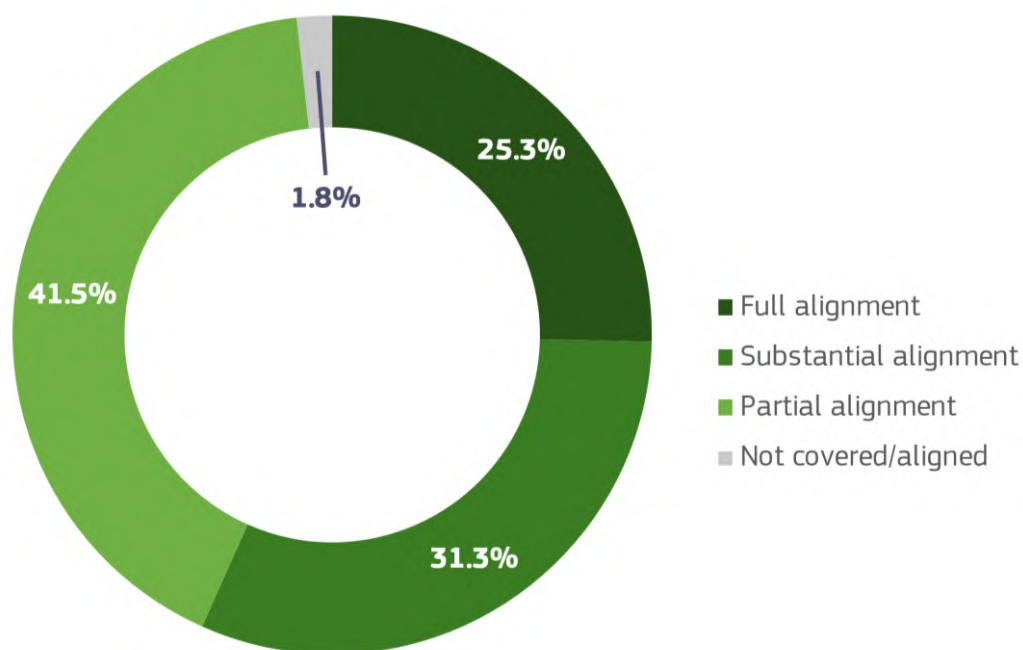


For the EUR 64.9 billion of allocated proceeds, the extent of full or substantial alignment to the Taxonomy is slightly lower compared to the total Pool but stands at **56.7%** (slightly increasing compared to 2024: 53.5%), while **partial alignment** represents 41.5% (2024: 44.0%) and **not covered or aligned** at 1.8% (2024: 2.5%).

The difference between the EU Taxonomy alignment of the total Pool, relative to that of allocated proceeds is driven by the higher complexity of EU Taxonomy aligned measures (e.g. new capital-intensive infrastructure in transportation and energy generation).

Table 11: EU Taxonomy alignment of the allocated proceeds (table in EUR million and chart in %, as of 1 August 2025)

	DNSH fully aligned	DNSH partially aligned	DNSH not covering specific EU taxonomy conditions
Full SCC alignment	14 intervention fields 16,443.6	5 intervention fields 10,272.1	4 intervention fields 19,399.9
Substantial SCC alignment	3 intervention fields 5,166.6	7 intervention fields 4,895.3	1 intervention field 524.0
Partial SCC alignment	0 intervention fields 0.0	9 intervention fields 4,588.9	5 intervention fields 2,447.6
Not SCC aligned			4 intervention fields 44.2
Not covered			4 intervention fields 1,112.2



Box 4: Methodology for classification of EU Taxonomy alignment

The EU Taxonomy alignment for the NGEU Green Bonds is based on the assessment at the level of intervention fields³⁹ of:

- alignment with the EU Taxonomy's Substantial Contribution Criteria (SCC) to the environmental objectives namely 'climate change mitigation and, where relevant, climate change adaptation'; and
- alignment of the DNSH criteria.

Both SCC and DNSH alignment were assessed independently of one another.

For the SCC, alignment can be classified in one of the following categories: 'Fully SCC aligned'; 'Substantially SCC compliant' with the main substantive qualitative SCC criteria⁴⁰, but not to the same scale; 'Partially SCC compliant' with only some SCC conditions; 'Not aligned' and 'Not covered' (see Annex V). In order to be considered 'Fully aligned' or 'Substantially aligned' with the main SCC condition, the inclusion of quantitative criteria (e.g. percentage change in energy consumption) must be present in both RRF and the EU Taxonomy, but in case of 'Substantially SCC compliance', the degree of the quantitative criteria covered by the criteria is not the same. To assess consistency with the DNSH requirements, the analysis is based on the standard DNSH criteria stemming from Annexes 1-4 of the Commission technical guidance on the application of DNSH under RRF⁴¹ along with the additional quantitative conditions present in Annex VI of the RRF Regulation.

The RRF conditions are compared to the EU Taxonomy Activities' DNSH conditions, consisting of both *basic standard conditions* for all Activities⁴² and additional quantifiable conditions specific to individual EU Taxonomy activities.

Depending on the evidence, consistency between the conditions is assessed on the following scale: 'Fully aligned', 'Partially aligned' or 'Not covering specific DNSH EU Taxonomy conditions'. (see Annex V)

In interpreting the *basic standard conditions' assessment*, it is noted that, while both the RRF DNSH criteria and the EU Taxonomy DNSH criteria aim to promote sustainability, they have different scopes, purposes, and areas of focus. The RRF criteria are applied to specific measures and reforms related to economic recovery and resilience, while the EU Taxonomy

³⁹ The EU Taxonomy alignment assessment at the level of intervention fields is driven by the stable nature of these fields (fixed in the RRF regulation), relative to individual measures which are subject to amendments or revisions under Member States RRFs.

⁴⁰ For the purpose of EU Taxonomy alignment assessment for both SCC and DNSH, Commission relies on Member States to have implemented various EU legislation and Directives that are referenced as conditions in EU Taxonomy Delegated Acts.

⁴¹ Commission Notice C (2021) 1054: Technical guidance on the application of 'do no significant harm' under the Recovery and Resilience Facility Regulation.

⁴² EU Taxonomy Regulation (EU) 2020/852 – Article 17

criteria classify entire economic activities based on their environmental and climate sustainability.

These differences do not however retract from the sustainability benefits of the respective measures⁴³.

In addition, while in many cases, the 2,012 milestones or targets attached to the 1,045 measures in the NGEU Green Bond Pool include conditions to reinforce compliance with DNSH, this could not be considered for the purpose of this analysis, as EU Taxonomy alignment is performed only up to the level on intervention fields (not of individual measures). These additional safeguards embedded in the milestones and targets, which are expected to lead to a much closer alignment between the EU Taxonomy Delegated act and the RRF, are hence not reflected in this analysis, rendering the presented estimates on the conservative side.

Annex V includes further details on the EU Taxonomy alignment analysis underpinning these results and explaining the differences between different levels of alignment, with illustrative examples.

⁴³ For example, one of the specific considerations of Taxonomy are also Minimum Safeguards (EU Taxonomy Regulation (EU) 2020/852 – Article 18) of labour and human rights: The Commission does not individually confirm each individual RRF measure to be aligned with Minimum Safeguards, however as all EU financing has to comply with EU labour protection, equality and human rights enshrined in EU fundamental treaties (Charter of Fundamental Rights of EU), the Commission operates in confidence that RRF financing, same as all EU financing provides such considerations and protections. In case of violations, EU labour protection agencies, EU and local Ombudsman and national and EU courts intervene. Commission also maintains its right to exclude measures which have unreliable implementation from the NGEU Green Bond Pool or in case of violations recover funds.

Climate Impact of NGEU Green Bond proceeds



Climate Impact of NGEU Green Bond proceeds

Under the NGEU Green Bond Framework, the Commission has committed to providing investors and the wider public with transparent reporting on the climate impact of expenditures financed by NGEU Green Bonds. In the 2023 Allocation and Impact Report, the Commission published the first quantification of these impacts, setting out the methodological foundations for such calculations (see Box 5). This was further expanded in the 2024 Allocation and Impact Report.

The current impact report presents a further update of the estimated climate impact of NGEU Green Bonds, calculated in million tonnes of CO₂e/year of emissions avoided, taking into account the revised Pool of eligible investments and the revised milestones and targets from Member States.

Given the ongoing implementation of projects eligible for financing by NGEU Green Bonds, the report serves as a reference point for the estimated potential climate impacts that can be achieved through NGEU Green Bond financing, following full implementation of the measures that can currently be quantified.

Box 5: Impact Reporting Methodology

In order to approximate the climate impact from investments financed by NGEU Green Bonds, a three-pronged approach is followed building on the milestones and targets included in the national RRP.

Step 1

All the milestones and targets are analysed in order to find metrics – referred to as output indicators – that can be used in assessing the implementation progress of certain measures. Examples of such output indicators are MW of solar panel capacity installed, km of railway upgraded or built, or number of dwellings renovated. While for some measures multiple output indicators could be viable, the final decision on the chosen output indicator is based on its usability in making the translation to climate impact. Milestones and targets and their respective target values are only counted for a single output indicator in order to avoid issues of double counting. Output indicators are assigned to the intervention field for which they apply. Table 12 provides some examples of output indicators per intervention field.

Step 2

For each output indicator (and corresponding intervention field) a methodology for translating the output indicators into GHG emissions avoided is established.⁴⁴ These methodologies have been established with the support of Carbone 4, a specialised consultant in the field, and the establishment of such methodologies rely heavily on available academic literature. Once these

⁴⁴ While the Commission recognises that other impact indicators than GHG emissions avoided are available, this report focuses on GHG emissions avoided given its usability for investors in estimating the climate impact of their investments.

two steps are completed, the theoretical basis for translating investments in specific measures to prospective GHG emissions avoided is thus established.

Step 3

The actual completion of milestones and targets is tracked. Milestones and targets are only deemed as fulfilled and therefore taken into account for calculating the realised climate impact after the Commission has confirmed that the target has indeed been successfully reached. Partially achieved milestones or targets are not used for the purpose of impact calculations.

For completed milestones and targets that contain output indicators which are marked as relevant for impact reporting, as per step one, these output indicators are summed up and subsequently used as input in the developed impact estimation model as per the above step. This concludes the final step in calculating the impact from investments in NGEU Green Bonds.

While certain measures receive funding also from other sources than the RRF, for example national budgets, it is worth noting that the output indicators included in the milestones and targets used as input for calculating climate impact, only relate to funding from the RRF.

All expected impact numbers presented in this report relate to the annual amount of GHG emissions avoided resulting from implementation of investments by fulfilling indicated quantifiable milestones and targets scheduled up until end 2026 only. Nevertheless, emissions that are avoided through measures funded by the NGEU Green Bond proceeds will be maintained beyond the duration of the NGEU instrument, which is for the entire lifetime of these investments.

Annex VI provides a more detailed description of the process followed to calculate climate impact per relevant intervention field.

Table 12: Examples of output indicators and impact indicators

Intervention field	Output indicator	Outcome unit	Impact indicator	Impact unit
025bis – Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures compliant with energy efficiency criteria	Square meter or amount of dwellings renovated	m ²	GHG emissions avoided	XYZ tonnes of CO ₂ e/year emissions avoided
064 – Newly built or upgraded railways – TEN-T core network	Km of rail track built or upgraded	km	GHG emissions avoided	XYZ tonnes of CO ₂ e/year emissions avoided

030bis – Renewable energy: biomass with high GHG savings	Additional operation capacity installed for renewable energy	MW	GHG emissions avoided	XYZ tonnes of CO2e/year emissions avoided
029 – Renewable energy: solar	Additional operation capacity installed for solar energy	MW	GHG emissions avoided	XYZ tonnes of CO2e/year emissions avoided
075 – Cycling infrastructure	Amount of cycling infrastructure installed	km	GHG emissions avoided	XYZ tonnes of CO2e/year emissions avoided

ESTIMATED EXPECTED IMPACT

Taking into account the composition of the NGEU Green Bond Pool as of 1 August 2025 and building on the 2023 and 2024 methodological approach for calculating impacts across different intervention fields, it is estimated that, following full implementation of quantifiable milestones and targets, NGEU Green Bond eligible projects will reduce the EU's greenhouse gas emissions (GHG) by 53.4 million tonnes of CO2 per year. This amount represents approximately 1.5% of the annual GHG emissions of the EU for the year 2022.⁴⁵

These estimates are based on the analysis of 2,012 milestones and targets related to the NGEU Green Bond Pool (versus 2,096 in 2024), 545 of which contained quantifiable data that could be analysed in calculating climate impacts (versus 510 in 2024). These milestones and targets represent approximately 49% of the NGEU Green Bond Pool costs, related to 43% of the number of NGEU Green Bond Pool measures and to 36 intervention fields.⁴⁶

The slight decrease in the estimated amount of million tonnes of CO2 per year reductions (from 54.7 million tonnes of CO2e/year estimated in 2024 to 53.4 million tonnes of CO2e/year in 2025) reflects the ongoing revisions in the national RRP that affect the usability of milestones and targets for the calculation of estimated avoided emissions. While the level of green ambition of the RRF remains as high as ever, over time measures included in national plans are revised and refined, including with their respective milestones and targets. This can result in some measures no longer providing data for which a calculation methodology is available (see Box 5). In line with the Commission's commitment to a prudent, data-based reporting approach, such measures are excluded from the Commission's estimates leading to a nominal (but not actual) decrease in estimated emissions avoided.

⁴⁵ Source: EUROSTAT

(https://ec.europa.eu/eurostat/databrowser/view/ENV_AC_AIGG_Q_custom_2691128/bookmark/table?lang=en&bookmarkId=4bb9ab20-296b-4119-88e9-580ea7741c0a) The reference year of 2022 was chosen to represent an amount of GHG emissions that is not artificially lowered by the effects of the COVID-19 pandemic.

⁴⁶ Of the 36 intervention fields, 52% of the measures falling under them were included in the analysis, with the same limitations applying as for the amount of relative coverage of the NGEU Green Bond Pool.

In terms of expenditure categories, as in previous years, *'Clean transport & infrastructure'* (primarily through investments in rail infrastructure and zero-emission vehicles & vessels), and *'Clean energy & network'* (primarily through investments in wind and solar power), result in the largest amount of estimated GHG emissions avoided.

It is noted that the amounts of expected GHG emissions avoided per expenditure category do not necessarily correspond directly to the amount of costs eligible for NGEU Green Bond financing in the respective category and cannot be used as a basis to assess the effectiveness of spending in this regard. While some expenditure categories may result in higher amounts of emissions avoided per cost, differences are primarily due to the complexity of the investments under individual categories. In order to achieve climate neutrality by 2050, investments under all expenditure categories are necessary, however, regardless of their individual ratios of funds spent per tonne of emissions avoided.

Table 13: Estimated impact per Expenditure Category

Expenditure Category	GHG Emissions avoided (in tCO ₂ e/year) Total expected by 2026
Research and innovation activities supporting the green transition	3,452,641
Energy efficiency	10,303,447
Clean energy & network	19,945,935
Other	18,261
Water & waste management	2,049,531
Nature protection, rehabilitation and biodiversity	657,885
Clean transport & infrastructure	16,965,352
Grand Total	53,393,052

REALISED IMPACT

Based on the implementation of milestones and targets up until the cut-off date of 1 August 2025, the realised impact of the allocated NGEU Green Bond proceeds is calculated to be 14.0 million tonnes of CO₂e/year of emissions avoided (compared to 1.5 million tonnes of CO₂e/year in 2024 and 224,143 tonnes of CO₂e/year in the 2023). This represents 26% of the total estimated impact following full implementation of the quantifiable milestones and targets in the NGEU Green Bond Pool (versus 2.7% in 2024).

This exponential increase in realised GHG emission reductions reflects the extended lifespan of project implementation, where planning and administrative phases need to be completed before 'on the ground' implementation can take place. Under the RRF, milestones and targets must be completed by 31 August 2026. Unlike other sovereign issuers, NGEU Green Bonds do not refinance already implemented projects, but rather finance measures that are being implemented or are planned to be implemented in the upcoming years.

As the RRF programme contains some investments with long lead times, which is reflected in the structure of milestones and targets included in the calculations of the GHG emission reductions, these investments will continue delivering reductions also after the lifetime of the RRF.

This realised impact has been achieved primarily through energy efficiency renovations, rail infrastructure and zero-emission vehicles.

A detailed list of intervention fields incorporated in the analysis as well as the output indicator and impact indicator results can be found below. Description of methodologies used to calculate the impact indicator results of CO₂e/year of emissions avoided for each intervention field and output indicator can be found in the methodological annex (Annex VI).

Table 14: Realised impact per Expenditure Category

Expenditure Category	GHG Emissions avoided (in tCO2e/year) – realised impact
Research and innovation activities supporting the green transition	-
Energy efficiency	1,588,266
Clean energy & network	2,423,318
Water & waste management	113
Nature protection, rehabilitation and biodiversity	-
Clean transport & infrastructure	9,995,599
Other	-
Grand Total	14,007,296

Graph 6: Realised impact per expenditure category of the total expected (in MtCO2e/year as of 1 August 2025)

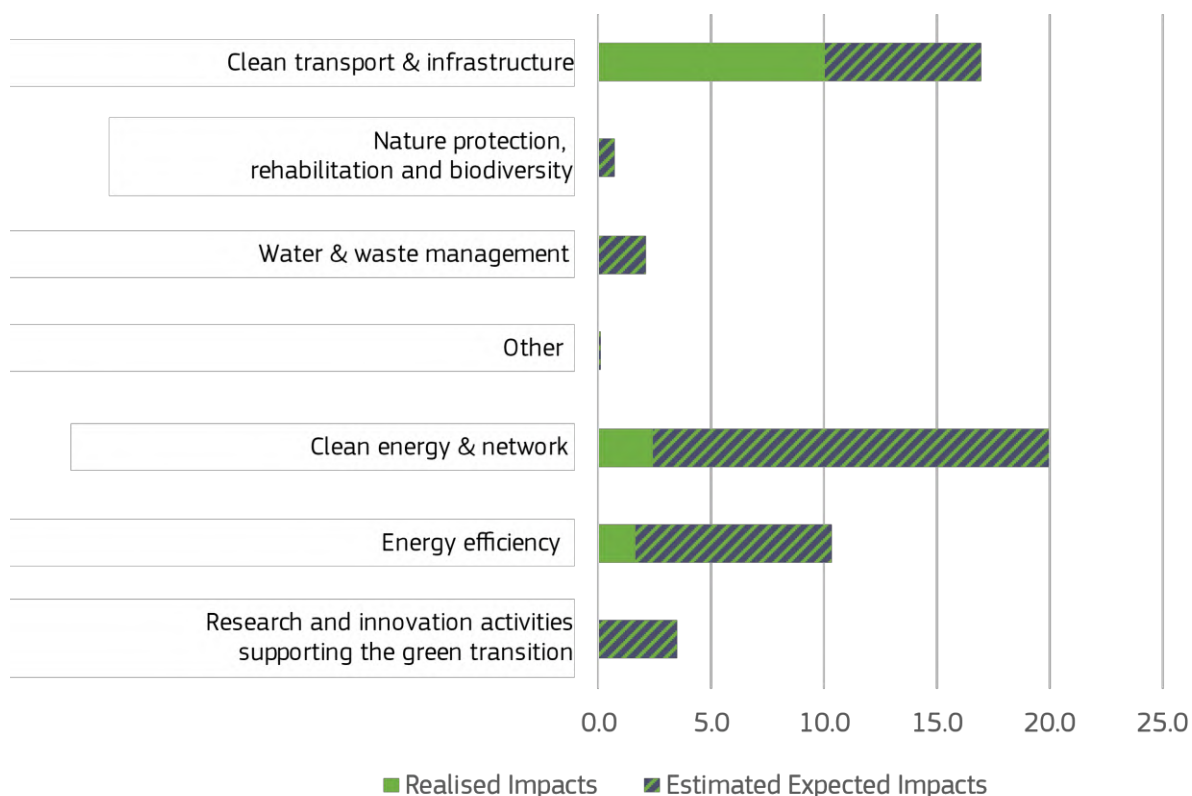


Table 15: Climate impact per intervention field (expected and realised)

Intervention Field	Output			Impact GHG Emissions avoided (in tCO ₂ e/year)		
	Indicator	Current result	Total 2026	Unit	Current result	Total 2026
022 – Research and innovation processes, technology transfer and cooperation between enterprises focusing on the low carbon economy, resilience and adaptation to climate change	Electrolyser capacity – Hydrogen production	0	1,300	MW	0	2,440,286
	Square Meters renovated (non-residential)	0	4,000	m ²	0	75
	CO ₂ savings				0	1,012,280
024 – Energy efficiency and demonstration projects in SMEs	Inhabitants equipped with smart water meter	0	372,200	Number	0	170
	Production of bioethanol equivalent	0	53	tonnes	0	35
	Square Meters renovated (non-residential)	620,000	620,000	m ²	2,609	2,609
	CO ₂ savings			tonnes	0	133,333
024bis – Energy efficiency and demonstration projects in large enterprises and supporting measures	CO ₂ savings			tonnes	86,705	86,705
024ter – Energy efficiency and demonstration projects in large enterprises	Square Meters renovated (non-residential)	0	50,631,298	m ²	0	697,970
	Zero-emission vehicles	0	20,000	Number	0	32,197
	Energy savings in industry	0	1	PJ	0	36,305
	CO ₂ savings				540,000	2,005,936
025 – Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures	Square Meters renovated (residential and non-residential)	0	839	m ²	0	10
	Square Meters constructed (residential and non-residential)	0	1,558	m ²	0	11
	Energy savings through energy class upgrades	0	28,261,093	kWh/year	0	3,194
	CO ₂ savings				0	2,003,000

Intervention Field	Output				Impact GHG Emissions avoided (in tCO ₂ e/year)	
025bis – Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures compliant with energy efficiency criteria	Square Meters renovated (residential and non-residential)	87,056,900	397,864,189	m2	655,194	4,381,575
025ter – Construction of new energy efficient buildings	Square Meters renovated (residential and non-residential)	744,800	2,908,334	m2	2,070	14,808
	Square Meters constructed (residential and non-residential)	365,312	9,578,632	m2	535	29,508
026 – Energy efficiency renovation or energy efficiency measures regarding public infrastructure, demonstration projects and supporting measures	Square Meters renovated (non-residential)	52,297	4,810,089	m2	220	38,842
	Square Meters constructed (non-residential)	0	401,440	m2	0	1,815
	Additional MWh saved per year	12,692	21,418	MWh	3,202	5,403
026bis – Energy efficiency renovation or energy efficiency measures regarding public infrastructure, demonstration projects and supporting measures compliant with energy efficiency criteria	Square Meters renovated (non-residential)	31,435,685	47,428,236	m2	297,730	573,596
	Square Meters constructed (non-residential)	0	3,913,039	m2	0	10,665
	Additional MWh saved per year	0	343,860	MWh	0	135,759
	CO ₂ savings				0	110,000
027 – Support to enterprises that provide services contributing to the low carbon economy and to resilience to climate change including awareness-raising measures	Installed Capacity of Solar Panels	0	44	MW	0	18,032
	Zero-emission car charging points (public and private)	0	40	Number	0	229
028 – Renewable energy: wind	Installed Capacity of Wind Farms	2,000	3,074	MW	2,141,685	3,268,760
029 – Renewable energy: solar	Installed Capacity of Solar Panels	1	39,687	MW	720	10,353,095
	Square Meters renovated (residential and non-residential)	0	285,011	m2	0	4,603
	Production of bioethanol equivalent	0	2,339,109	tonnes	0	1,557,602

Intervention Field	Output			Impact GHG Emissions avoided (in tCO2e/year)		
030bis – Renewable energy: biomass with high GHG savings	Zero-emission vehicles	0	300	Number	0	419
	Energy savings through renovations	0	6,009	MWh	0	1,083
	Electrolyser capacity – Hydrogen production	0	4	MW	0	5,006

Intervention Field	Output				Impact GHG Emissions avoided (in tCO2e/year)	
032 – Other renewable energy (including geothermal energy)	Installed Capacity of Solar Panels	0	514	MWp	0	296,656
	Number of smart electricity meters	0	130,000	Number	0	6,540
	Installed Capacity of Wind Farms	0	475	MWp	0	508,943
	Installed Capacity of renewable energy	0	1,473	MWp	0	1,581,803
	Installed Capacity of Hydropower plants	0	10	MWp	0	5,859
	Installed Capacity of geothermal electricity plants	0	27	MWp	0	68,132
	Installed Capacity of geothermal heat plants	0	40	MWp	0	82,834
	Electrolyser capacity – Hydrogen production	0	448	MW	0	560,640
	Reduction of electricity consumption	0	3,832	MWh	0	962
	Avoided energy consumption through building renovation	1,500	6,415	TJ/yr	110,913	474,339
	Production of bioethanol equivalent	0	48,472	tonnes	0	32,277
	CO2 savings			tonnes	170,000	736,000
033 – Smart Energy Systems (including smart grids and ICT systems) and related storage.	Number of smart electricity meters	0	1,316,569	Number	0	91,825
	Electrolyser capacity – Hydrogen production	0	75	MW	0	93,857
	Installed Capacity of Wind Farms	0	76	MW	0	59,524
	Installed Capacity of Solar Panels	0	204	MW	0	117,874
	Installed Capacity of renewable energy	0	3	MW	0	1,491
	Zero-emission buses	0	15	Number	0	813
	Zero-emission bus charging points	0	1,030	Number	0	1,181

Intervention Field	Output				Impact GHG Emissions avoided (in tCO2e/year)	
034bis0 – High efficiency co-generation, efficient district heating and cooling with low lifecycle emissions	Energy savings resulting from the modernisation of heat distribution	0	68,139	MWh/Yr	0	18,138
	Energy savings resulting from the modernisation of heat distribution	0	20	kTOE	0	57
	Quantity of RES energy connected to district heating	0	32	GWh	0	7,542
	Installed Capacity of renewable energy	0	15	MW	0	8,083
039bis – Provision of water for human consumption (extraction, treatment, storage and distribution infrastructure, efficiency measures, drinking water supply) compliant with efficiency criteria	Water savings	0	56,500,000	m3/year	0	13,139
	Length of drinking water network projects	743	4199	km	113	390
041bis – Waste water collection and treatment compliant with energy efficiency criteria	Waste water treatment units	0	26	Number	0	3,247
042 – Household waste management: prevention, minimisation, sorting, reuse, recycling measures	Number of sorting facilities – Plastic waste	0	3	Number	0	1,213,521
	Number of sorting facilities – Municipal waste	0	52	Number	0	0
	Plastic avoided	0	275,000	tonnes	0	598,950
	Zero-emission trucks	0	79	Number	0	4,293
044 – Commercial, industrial waste management: prevention, minimisation, sorting, reuse, recycling measures	Number of sorting facilities – Municipal waste	0	6	Number	0	94,560
	Production of bioethanol equivalent	0	175,200	tonnes	0	116,665
046bis – Rehabilitation of industrial sites and contaminated land compliant with efficiency criteria	Square Meters renovated (non-residential)	0	132,544	m2	0	4,766

Intervention Field	Output	Impact				
		GHG Emissions avoided (in tCO2e/year)				
050 – Nature and biodiversity protection, natural heritage and resources, green and blue infrastructure	Electric recharging points for electric vessels at the sea and quay	0	10	Number	0	657,885
064 – Newly built or upgraded railways – TEN-T core network	Length of railway	0	4,295	km	0	225,510
065 – Newly built or upgraded railways – TEN-T comprehensive network	Length of railway	0	964	km	0	87,143
066bis – Other newly or upgraded built railways – electric/zero emission	Length of railway	40	50	km	1,844	2,308
067 – Reconstructed or modernised railways – TEN-T core network	Length of railway	0	333	km	0	113,017
068 – Reconstructed or modernised railways – TEN-T comprehensive network	Length of railway	1,698	4,198	km	326,101	725,095
069bis – Other reconstructed or modernised railways – electric/zero emission	Length of railway	100	1,031	km	11,205	81,263
070 – Digitalisation of transport: rail	Length of railway	0	305	km	0	26,536
	Bicycle parking spaces constructed	0	1,500	Number	0	36,676
071 – European Rail Traffic Management System (ERTMS)	Number of trains/locomotives	0	181	Number	0	442
	Length of railway	0	2,815	km	0	367,126
072bis – Mobile zero emission/electric powered rail assets	Number of trains/locomotives	0	637	Number	0	1,273
073 – Clean urban transport infrastructure	Length of constructed tram or metroway	20	849	km	53,417	2,026,133
	Bicycle parking spaces constructed	6,000	6,000	Number	131,737	131,737
	Zero-emission vehicles	0	119,000	Number	0	176,501
	Zero-emission buses	0	3,000	Number	0	127,311

Intervention Field	Output			Impact GHG Emissions avoided (in tCO ₂ e/year)		
	Zero-emission car charging points (public and private)	0	120,822	Number	0	691,181
	Zero-emission bus charging points	0	1,007	Number	0	1,226

Intervention Field	Output				Impact	
					GHG Emissions avoided (in tCO2e/year)	
074 – Clean urban transport rolling stock	Zero-emission buses	145	7,374	Number	6,283	298,640
	Zero-emission vehicles	0	8,977	Number	0	11,898
	Zero-emission bus charging points	0	1,007	Number	0	1,347
	Square Meters renovated (non-residential)	0	244,050	m2	0	1,567
075 – Cycling infrastructure	Cycle path constructed	285	6,308	km	14,971	426,717
	Bicycle parking spaces constructed	0	10,000	Number		
077 – Alternative fuels infrastructure	Zero-emission car charging points (public and private)	690,500	815,088	Number	8,698,406	9,679,878
	Zero-emission bus charging points	0	489	Number	0	4,061
	Zero-emission vehicles	0	3,850	Number	0	5,943
	Production of bioethanol equivalent	0	6,800	tonnes	0	4,528
	Biogas refuelling stations (compressed)	0	2	Number	0	10,972
	CO2 savings through hydrogen refuelling stations			tonnes	0	309,647
ADHOC – Ad hoc intervention field [zero-emission vehicles]	Zero-emission vehicles	564,000	1,038,751	Number	751,635	1,388,679
	Zero-emission car charging points (public and private)	0	200	Number	0	997
TOTAL					14,007,296	53,393,052

METHODOLOGICAL CONSTRAINTS

While the Commission strives to provide a large overview of NGEU Green Bond's achievements in terms of climate impact, the analysis presented in this report is subject to a number of methodological constraints.

To start, the impact reporting methodology is based on establishing reasonable output indicators per intervention field as the first step and assessing the climate impact of the respective intervention field as the next step. For the current report, this climate impact is defined primarily in terms of climate change mitigation through the use of the impact indicator of GHG emissions avoided. While all measures financed by NGEU Green Bonds contribute to furthering the EU's climate ambitions, only those measures where the translation into the desired impact indicator (GHG emissions avoided) was possible have been included in the impact reporting. Primarily, this concerns measures where an effect of GHG emissions avoided could reasonably be expected (such as clean energy or renovation actions). Further efforts were made to also include intervention fields where such a specific impact metric was less readily evident (e.g., Water management and water resource conservation, Nature conservation). However, due to the less direct nature of measures under these intervention fields to the amount of GHG emissions avoided, only a select number of measures could be factored in for these intervention fields, though their contribution to the green transition remains undisputed. Similarly, some intervention fields (e.g. Adaptation to climate change measures and management of climate related risks), remained outside the scope of this analysis given methodological constraints in converting these actions to GHG emissions avoided. Nevertheless, the analysis attempts to cover all major intervention fields, even if not all measures under these intervention fields could be included in the impact calculations.

In addition, this type of analysis necessitates translation of measures' quantitative targets into output indicators. By nature, only those targets that provide reasonable quantitative information can be taken into account. As not all measures have quantifiable milestones or targets that can be incorporated in the calculation of the output indicators, not all measures can be factored into the calculation of the output metrics per intervention field. Where only qualitative information was available, the available data was not suitable for aggregation or there was no methodology available to translate the output indicator into an impact indicator, milestones or targets were not taken into account. For example, while most measures under intervention field *'Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures compliant with energy efficiency criteria dealing with renovations'* will have provided targets indicating the square meters or number of dwellings/buildings to be renovated, some measures only provided the number of actions. Since this did not allow for a reasonable conversion towards m² or number of dwellings, these measures could not be included in the analysis.

It should be noted that most measures contain more qualitative milestones than quantitative targets, as milestones often refer to the necessary prerequisites to start implementation. For example, while milestones may refer to necessary legislation being passed, the quantitative target may then refer to the actual implementation at a later stage.

The Commission has sought to cover as much eligible expenditure and allocated proceeds as possible in this impact reporting cycle. Methodological constraints meant that the analysis is based to a large degree on intervention fields in terms of their importance to the NGEU Green Bond Pool and for which calculations of outputs and impacts were deemed feasible, with intervention fields

that do not have such a direct link having less of their green bond eligible expenditure covered in the impact analysis.

In addition, ongoing changes made to milestones and targets in the context of the revision of national recovery and resilience plans also affect the inclusion of measures. In this context some milestones and targets were changed or removed compared to previous years, to a degree that did not allow their further inclusion in the impact analysis while some others did not correspond to a metric that would allow for their inclusion in the analysis.

Due to the above-mentioned limitations, while the NGEU Green Bond Pool comprises 2,012 milestones and targets, only 545 of these provide quantitative data that could be incorporated in the analysis of outputs and impacts presented in this report. Despite this limited absolute number, these quantifiable milestones and targets represent around 49% of the total NGEU Green Bond Pool. The remaining measures, while relevant in terms of climate impact, could not be quantified at the time of this report, though the Commission will continue to strive to include more investments in future reports where possible.

The Commission will continue to provide updates of the realised climate impacts from projects financed by NGEU Green Bonds until full allocation of NGEU Green Bond proceeds has been completed. These updates will integrate whenever possible additional methodologies and environmental considerations on the impact of investments financed by NGEU Green Bonds.



Case studies
of investments financed
by NGEU Green Bonds

Case studies of investments financed by NGEU Green Bonds

Case studies help exemplify the transformative power of investments financed by NGEU Green Bonds. The examples presented below correspond only to a small sample of projects that are being financed with the help of the NGEU Green Bonds across Member States and that highlight the breadth of impact from large infrastructure projects to biodiversity protection, ecosystem restoration, water conservation and waste management⁴⁷.

Each case study includes the unique identifier assigned to each measure or submeasure (the 'Reference'). In some cases, measures can then be divided in multiple submeasures, taking into account regional implementation, type of financing (e.g. green vs. non-green financing) or phases/sections of construction. Each measure or submeasure can further include multiple individual projects (several construction sites, multitude of apartments, electricity plants, etc.)⁴⁸.

'Intervention fields' are defined in the RRF Regulation and are assigned to each individual submeasure or measure.

The 'NGEU Green Bond eligible amount' presented in the case studies refers to the costs after the application of the Green Bond eligibility coefficient (0%, 40% or 100%) in line with the NGEU Green Bond Framework.

'NGEU Green Bond reported expenditure' denotes the amount of expenditure that Member States have reported under each individual measure or submeasure (also referred to as allocated proceeds).

⁴⁷Further examples of reforms and investments financed by the RRF including in the area of green transition can be found in the Commission project database here – RRF Map: [Recovery and Resilience Facility - European Union \(europa.eu\)](https://ec.europa.eu/rrf-map/).

⁴⁸ While case studies presented in this Section make reference to the RRF Map, it is noted that some data points may not always match due to either timing of updates or due to scope of referred projects within the relevant measure or submeasure.

FRANCE: URBAN DENSIFICATION – BROWNFIELDS



Source: EC RRF Map of Projects.⁴⁹

Reference	FR-C[C2]-I[I3]
Intervention field	050 – Nature and biodiversity protection, natural heritage and resources, green and blue infrastructure
NGEU Green Bond eligible amount	260,000,000 EUR
NGEU Green Bond reported expenditure	260,000,000 EUR

Measure aimed to rehabilitate and recycle brownfield and wasteland sites, which represent a significant source of lands. The goal is to contribute to the trajectory of the ‘zero net artificialisation’ by 2050 set by the French government, with the objectives of controlling urban sprawl and supporting urban revitalisation and consequently limiting the consumption of natural areas. The measure also supports the development of land knowledge tools.

One of the projects financed by the measure concerns the conversion of an industrial brownfield in the suburbs of Le Mans into 25 social housing units.

The project, concluded in Spring 2023 entailed the conversion of a former factory in Yvré-L’Evêque (covering a total area of 26,156 m2, including 6,400 m2 of buildings), into a 25 social housing eco-district (2,000 m2) and a cultural and social space following deconstructing and depolluting the old factory site. The project included deconstruction and depolluting of the old factory site and preservation of natural areas, particularly wetlands located on the banks of the Huisne river.

⁴⁹ https://commission.europa.eu/projects/recycling-brownfield-social-housing-yvre-leveque_en

GREECE: REFORM OF THE PRIMARY HEALTH CARE SYSTEM – GREEN INVESTMENTS



Source: EC RRF Map of Projects.⁵⁰

Reference	EL-C[3,3]-R[16755.b]
Intervention field	026 – Energy efficiency renovation or energy efficiency measures regarding public infrastructure, demonstration projects and supporting measures
NGEU Green Bond eligible amount	75,598,886 EUR
NGEU Green Bond reported expenditure	75,598,886 EUR

The submeasure involves the Renovation of Primary Healthcare Infrastructure across Greece.

Only green investments are financed through NGEU Green Bonds. Specifically, this involves comprehensive infrastructure improvements aimed at achieving energy and operational upgrades of the buildings, including improvements to thermal insulation, electromechanical equipment and networks, as well as the overall condition of the facilities. Thus, also the quality of healthcare services is enhanced.

As part of this submeasure, energy efficiency upgrades and renovation works are currently underway at the Health Centre of Velestino, Region of Thessaly with the project being on track to be concluded by end of 2025.

⁵⁰ https://commission.europa.eu/projects/upgrading-infrastructure-facilities-primary-health-carevelestino-health-center_en

SLOVENIA: STRENGTHENING THE ELECTRICITY DISTRIBUTION NETWORK



Source: EC RRF Map of Projects.⁵¹

Reference	SI-C[C1]-I[IF] SI-C[C1]-I[IFL]
Intervention field	033 – Smart Energy Systems (including smart grids and ICT systems) and related storage.
NGEU Green Bond eligible amount	47,430,000 EUR
NGEU Green Bond reported expenditure	19,270,000 EUR

This measure aimed to modernise the electricity distribution grid in line with the increasing consumption of renewable electricity and to enable the connection of generating installations to renewable energy sources, heat pumps and recharging points for electric vehicles. The entire measure consists of the deployment of 838 new transformer stations and a new low-voltage network with a length of 1,300 kilometres.

Within the project of upgrading the low-voltage network by Elektro Gorenjska, 55 transformer stations and 86.7 km of new low voltage grid will be built. The measure started in June 2023 and will be finalised by mid-2026.

⁵¹ https://commission.europa.eu/projects/elektro-gorenjska-strengthening-electricity-distribution-network-low-voltage-network_en

CZECHIA: BRNO – PROTECTION AGAINST DROUGHTS AND FLOODS



Source: EC RRF Map of Projects.⁵²

Reference	CZ-C[C2.9]-I[I1]
Intervention field	040 – Water management and water resource conservation. ⁵³
NGEU Green Bond eligible amount	29,926,950 EUR
NGEU Green Bond reported expenditure	28,993,063 EUR

The measure aims to protect persons and property of the inhabitants of the city of Brno from floods, by revitalising the watercourse, making the area concerned more attractive and freeing the area for further development. The proposed interventions will increase the capacity of the Svatka riverbed in the section from km 37,028 to 40,174.

The flood protection will be linked to the river revitalisation, bringing the regulated river and the floodplain closer to the natural state in the entire area under consideration. The measure is on track to be completed by the end of 2025.

⁵² https://commission.europa.eu/projects/implementation-flood-protection-measures-city-brno-stages-vii-and-viii_en

⁵³ Full name of Intervention Field: Water management and water resource conservation (including river basin management, specific climate change adaptation measures, reuse, leakage reduction)

BELGIUM: BLUE DEAL – ADAPTATION TO CLIMATE CHANGE MEASURES



Source: EC RRF Map of Projects.⁵⁴

Reference	BE-C[C13]-I[I-124.S1]
Intervention field	037 – Adaptation to climate change measures and prevention and management of climate related risks. ⁵⁵
NGEU Green Bond eligible amount	174,130,823 EUR
NGEU Green Bond reported expenditure	159,420,000 EUR

The Flemish Blue deal is a submeasure aiming to increase Flanders' preparedness for longer periods of drought and more frequent heat waves by addressing drought problems in a structural way. Blue Deal projects across Flanders, involve different actors such as industry, farmers and municipalities.

The actions cover:

- landscape projects for drought mitigation,
- a research program in agriculture,
- two projects on waterway pumps and locks,
- a water management support scheme for companies that invest in innovative water saving technologies,
- innovative projects on circular water use and digital monitoring and smart water data systems,
- implementation of nature-based solutions in four defined areas and
- wetland restoration projects.

The restoration of the Romboutswerpolder in Damme, part of the Flemish Blue deal submeasure includes restoring 700 ha of polder landscape in order to increase water retention, as well as boost local fauna and flora, in coordination with neighbouring farmers.

The supported projects shall be completed by mid-2026.

⁵⁴ https://commission.europa.eu/projects/blue-deal-flemish-region_en

⁵⁵ Full name of Intervention Field: 037 - Adaptation to climate change measures and prevention and management of climate related risks: others, e.g. storms and drought (including awareness raising, civil protection and disaster management systems, infrastructures and ecosystem based approaches)

ESTONIA: CONSTRUCTION OF THE TALLINN OLD PORT TRAM LINE



Source: EC RRF Map of Projects.⁵⁶

Reference	EE-C[E]-I[5-4-.5-4-]
Intervention field	073 – Clean urban transport infrastructure
NGEU Green Bond eligible amount	36,500,000 EUR
NGEU Green Bond reported expenditure	33,200,000 EUR

A new tramline of 2.5 km connecting Tallinn Airport, Rail Baltica hub in the city centre, the Old Port and the regional train station was opened in the end of 2024.

The connection also aims to integrate future Rail Baltica⁵⁷ with Tallinn local public transport. This crucial addition in Tallinn city public transport enables multimodal and clean commute for passengers.⁵⁸

Meanwhile, Rail Baltica aims to connect Estonia with other Baltic EU Member States and Poland through railway – enabling a new key transportation link, representing greener connectivity option of wider strategic importance for the region.⁵⁹

⁵⁶ https://commission.europa.eu/projects/tallinn-old-port-tram-line_en

⁵⁷ <https://railbaltica.org/>

⁵⁸ <https://www.tallinn.ee/en/vanasadamatramm>

BULGARIA: SOFIA METRO LINE 3



Source: Hadzhi Dimitar Station – this is the final station of the operational section from which the extension financed by the RRF starts ⁶⁰

Reference	BG-C[C8]-I[I16.b]
Intervention field	073 – Clean urban transport infrastructure
NGEU Green Bond eligible amount	95,234,000 EUR
NGEU Green Bond reported expenditure	81,197,544 EUR

This project related to the construction of a section of line 3 of the Sofia metro for a total length of 3 km, covering 3 stations, which will provide a clean, rapid and efficient public transport service to passengers with intermodal connections.⁶¹

The investment, supported also by the EIB, is expected to allow the transport of 7.6 million passengers per year on average as of 2026. By enhancing public transport for the city's inhabitants, this investment is expected to lead to a reduction in greenhouse gases and air pollution, and a reduction in the number of cars in circulation in the city.

The investment is expected to be completed by mid-2026.

⁶⁰ RRF map: https://commission.europa.eu/projects/sofia-metro-line-3_en; Picture source: <https://www.metropolitan.bg/shema/galeriya-virtualna-razhodka/galeriya/liniya-3-na-metroto/duplicate-of-stancziya-hadzhi-dimitar>

⁶¹ <https://www.eib.org/en/projects/pipelines/all/20210719>



Limited Assurance Report

Limited Assurance Report



Independent Auditor's Assurance Report on selected information of the European Union (EU)

The Directorate General for Budget of the European Commission (DG Budget)

In accordance with our agreed terms of engagement dated 25 July 2022 and 27 July 2023, we have completed our limited assurance engagement to report on the preparation of the selected information for the NextGenerationEU (NGEU) green bonds (ISIN: EU000A3K4C42, EU000A3K4DG1, EU000A3K4DM9, EU000A3K4DW8 and EU00043K4EU0) of the EU prepared by the DG Budget (Selected Information) and contained in Table 1 "NGEU Green Bond pool broken down by Member State (in EUR as of 1 August 2025)" of Annex III: "Detailed allocation of NGEU Green Bond proceeds" and Table 14: "Realised impact per expenditure category" under section "Climate Impact of NGEU Green Bond proceeds" in the EU's NGEU Green Bonds Allocation and Impact Report 2025. The applicable criteria on the basis of which the DG Budget has prepared the Selected Information are described in Annex I: "Evaluation and selection of eligible NGEU Green Bond measures" and Annex VI: "Impact methodologies per Intervention Fields" in the NGEU Green Bonds Allocation and Impact Report 2025 (Basis of Preparation).

Responsibility of the DG Budget for the Selected Information

The DG Budget is responsible for the preparation of the Selected Information on the basis of the applicable criteria described in the Basis of Preparation.

Our independence and quality management

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA) and as adopted for Luxembourg by the *Commission de Surveillance du Secteur Financier* (CSSF), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standard on Quality Management 1, as adopted for Luxembourg by the CSSF, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Inherent limitations

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

*PricewaterhouseCoopers Assurance, Société coopérative, 2 rue Gerhard Mercator, L-2182 Luxembourg
T: +352 494848 1, F: +352 494848 2900, www.pwc.lu*

*Cabinet de révision agréé. Expert-comptable (autorisation ministérielle n°10181659)
R.C.S. Luxembourg B294273 - TVA LU30559370*



Responsibilities of the Réviseur d'entreprises agréé

Our responsibility is to express a limited assurance conclusion on the Selected Information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) 'Assurance Engagements other than Audits or Reviews of Historical Financial Information', as issued by the International Auditing and Assurance Standards Board (IAASB) and as adopted for Luxembourg by the *Institut des Réviseurs d'Entreprises (IRE)* and in accordance with the Luxembourg legislation and with the professional standards issued by the IRE.

This standard requires that we plan to perform our work to obtain limited assurance as to whether the Selected Information were prepared by the DG Budget, in all material respects, in accordance with the Basis of Preparation.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

The selection of such procedures depends on our professional judgment, including the assessment of the risks of management's assertion being materially misstated. The scope of our work comprised, among others, of the following procedures:

- assessing and testing the design and functioning of the systems and processes used for data-gathering, collection, consolidation and validation, including the methods used for calculating and estimating the information and data presented in the Selected Information;
- conducting interviews with responsible officers; and
- inspecting internal and external documentation.

We have evaluated the Selected Information against the Basis of Preparation. The accuracy and completeness of the Selected Information are subject to limitations given their nature and the methods for determining, calculating, or estimating such information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information has not been prepared, in all material respects, in accordance with the Basis of Preparation.



Restriction of use and distribution of the report

This report, including the opinion, has been prepared for and only for the DG Budget in accordance with the terms of our engagement letters and is not suitable for any other purpose. We do not accept any responsibility to any other party to whom it may be distributed.

PricewaterhouseCoopers Assurance, Société coopérative

Luxembourg, 3 December 2025

Represented by

DocuSigned by:

754011A468FF401...

Malik Lekehal
Réviseur d'Entreprises Agréé