



RATP GREEN BOND

**Allocation
and Impact
Report** | July 2026



RATP
GROUP



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ATTESTATION BY ONE OF RATP EPIC STATUTORY AUDITORS

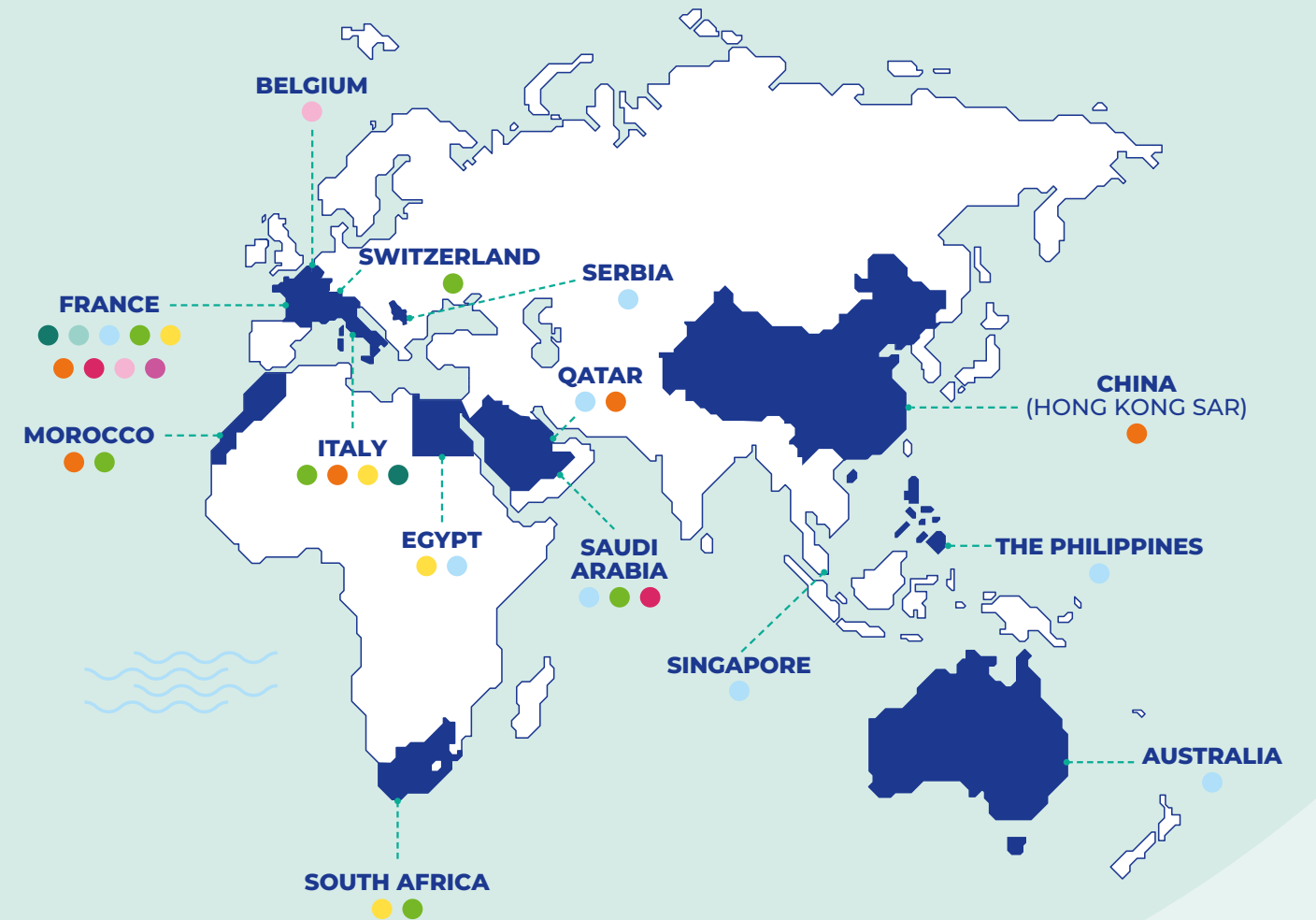
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73,500

employees,
nearly a quarter of whom are based
internationally

Nearly **4.5 billion**
journeys were provided
worldwide in 2025

Over **120**
ongoing transport-related
operations



RATP GROUP

THE WORLD'S THIRD-LARGEST URBAN PUBLIC TRANSPORT OPERATOR

5

areas of
expertise

Mobility services

Urban services

Infrastructure
management

Safety

Additional services

Present in 16 countries* across 5 continents and providing over 14 million journeys every day worldwide, RATP Group is a leading global player in urban mobility. Building on its multimodal expertise and a broad range of complementary skills — from urban services (real estate, telecoms, logistics, new mobility solutions, energy) to safety, as well as passenger information systems, ticketing solutions, and infrastructure management — the Group designs, implements, and operates robust, high-performance solutions and innovative services for low-carbon mobility, supporting the development of more sustainable, human-centred cities.

* UK-based operational support company

9

transport
modes



Metros



Rail



Trams



Urban and
intercity buses



Sightseeing
services



Demand-responsive
transport



Cable cars



River and
maritime shuttles



Autonomous
vehicles

3

modes operated
in partnership



Bikes



Carpooling

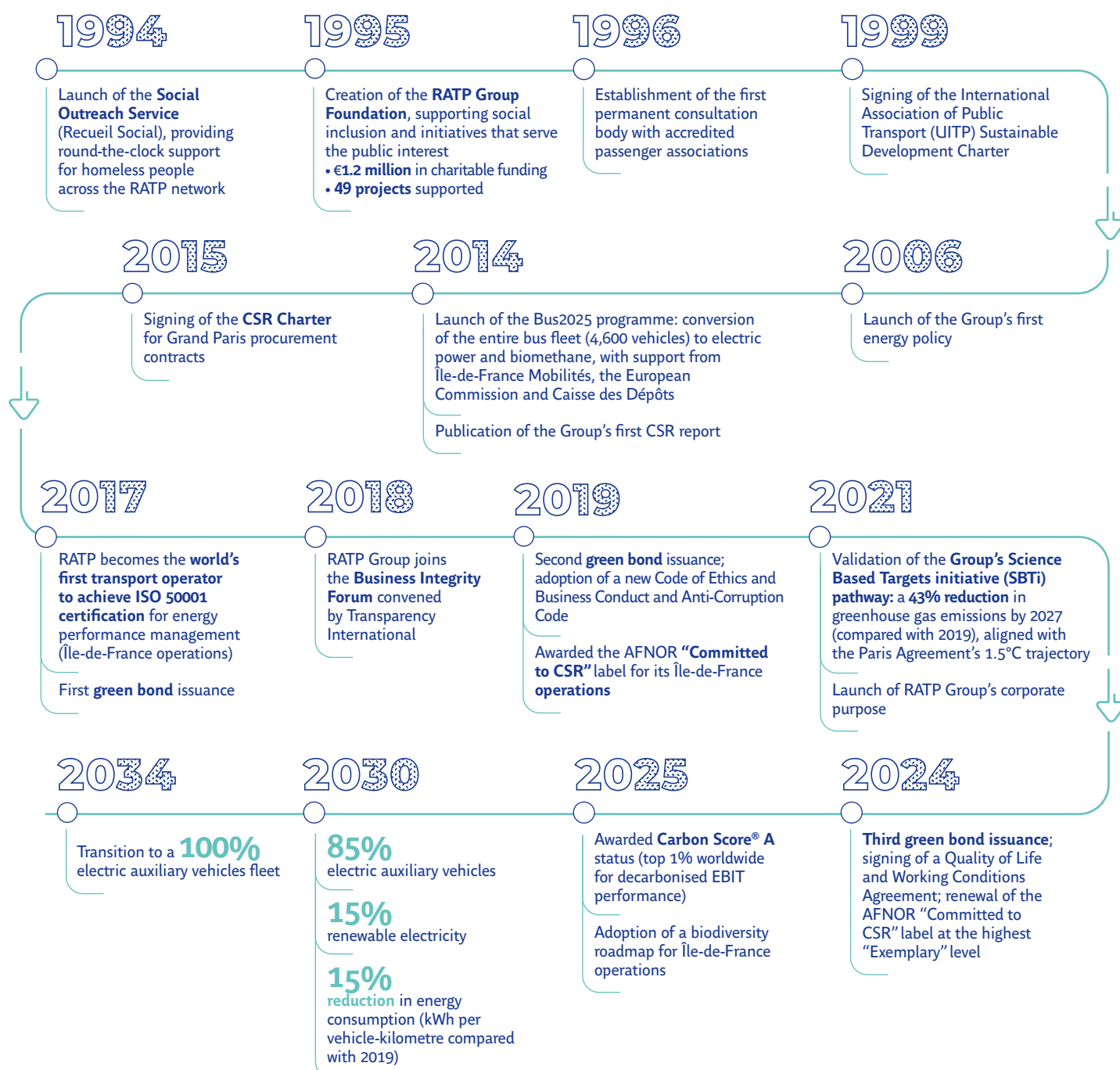


Car sharing

A LONG-TERM COMMITMENT TO CORPORATE SOCIAL RESPONSIBILITY

Mobility is an essential lever in responding to the growing societal and environmental challenges that tomorrow's cities will face. As a privileged partner in regions across France, RATP Group actively commits every day to developing safer, more inclusive, eco-friendly and human-focused cities.

Significant commitments



Our CSR policy

The Group CSR policy, reviewed and validated by the Group Chairman in June 2023, focuses on three strategies:

Be a major player in mobility and sustainable cities	Accelerate the ecological transition of our business activity	Assert our corporate and social responsibility
Provide multi-modal, accessible and safe mobility options	Contribute in reaching carbon neutrality goals	Prevent occupational risks and promote management that encourages staff commitment
Act in favour of environmental health	Conserve resources and protect biodiversity	Contribute to the economic vitality and solidarity of regions
Contribute in improving quality of life and urban resilience to climate change	Roll out eco-design across our business activities	Ensure fair business practices in our value chain

Labels and certifications

RATP Group's CSR commitments are embedded within a robust framework subject to independent external verification:

- **Science Based Targets initiative (SBTi):** greenhouse gas reduction pathway aligned with the Paris Agreement, targeting a 43% reduction in emissions by 2027 compared with 2019.
- **EU Green Taxonomy (voluntary reporting):** 92% of activities eligible under the taxonomy, with 47% aligned with the climate change mitigation objective.
- **Axylia Carbon Score® – Rating A:** ranked among the top 1% of transport companies worldwide for climate performance.
- **Cap'Handéo:** since May 2023, all metro and RER lines operated by RATP have been certified under the "Cap'Handéo Mobility Services" standard. Tram lines T5 and T8 were certified in 2024, followed by T6 and Orlyval in 2025.
- **AFNOR "Committed to CSR" Label – Exemplary Level:** the highest distinction awarded under the framework, renewed in 2025 for the Group's overall CSR approach.
- **ISO 50001 – Energy Performance Management:** RATP was the first transport operator in the world to achieve this certification for its Île-de-France operations. Five major RATP Dev networks are also committed to obtaining certification by 2029.



Discover our CSR strategy

Contribute in reaching carbon neutrality goals

Globally, the transport sector is the second-largest contributor to greenhouse gas (GHG) emissions from energy consumption, after electricity generation. Through its mass transit activities and the predominance of electrified transport modes, RATP Group contributes to reducing sector GHG emissions. RATP Group's climate change mitigation policy aims to reconcile increased use of public transport with reduction of GHG emissions across the Group.

RATP Group has implemented a climate change mitigation strategy integrated into the Ambition 2030 corporate plan, which is endorsed by the Executive Committee.

This policy aims to reduce the impact of the Group's activities on climate change and contribute to global carbon neutrality, notably by accelerating the transition to low-carbon mobility.

It is structured around four strategic priorities:

- **promoting low-carbon mobility, particularly through modal shift;**
- **reducing energy consumption and decarbonising energy use;**
- **leveraging procurement as a driver of decarbonisation;**
- **integrating sustainability criteria into investment projects.**

Below are three examples of RATP actions related to climate change mitigation.

Promoting low-carbon mobility

With high passenger density, public transport represents a significantly lower-carbon alternative to private car use, particularly metro, tramway and RER services, where electric traction generally has a much lower environmental impact than fossil fuels, especially in France.

In the Île-de-France region, in accordance with the contract signed with Île-de-France Mobilités, RATP EPIC is deploying bicycle parking facilities. In 2025, over 1,000 additional spaces were created, bringing the total to approximately 5,900 spaces located near the RATP EPIC network. The new contract signed in 2025 provides for the creation of an additional 4,000 to 6,000 spaces by 2029.

Decarbonising our energy consumption

On the Île-de-France regional surface network, RATP EPIC, supported by Île-de-France Mobilités and the European Commission, has been implementing the Bus2025 programme since 2014. The programme aims to convert the entire historic bus fleet – comprising 4,600 buses – to electric and biomethane power and to deploy infrastructure suitable for these vehicles. As of year-end 2025, the bus fleet operated by RATP EPIC comprised 4,630 vehicles, including 1,099 hybrid buses, 1,095 fully electric buses and 1,281 buses powered by biomethane, meaning that 75% of the fleet operates using low-emission technologies.

Leveraging procurement as a decarbonisation driver

Carbon criteria are being integrated into key procurement contracts. In 2025, five contracts were awarded with an included carbon criterion, representing one third of the CSR score, which accounted for between 5% and 15% of the overall evaluation depending on the contract. For 2026, the plan is to deploy carbon criteria across ten additional contracts and increase the weighting of this criterion. These developments will progressively strengthen the integration of carbon considerations into purchasing decisions.

Greenhouse gas emission reduction

RATP EPIC has set a target to **reduce energy-related greenhouse gas emissions** (scopes 1, 2 and 3) by **43% by 2027** compared with the base year of 2019. This commitment has been validated by the **Science Based Targets initiative (SBTi)**, confirming science-based alignment with the most ambitious Paris Agreement pathway limiting global warming to 1.5°C, an objective also reflected in the Ambition 2030 corporate plan.

In 2025, greenhouse gas emissions associated with energy consumption for RATP EPIC amounted to 232 kilotonnes of CO₂eq under the location-based method, representing a **40% reduction** compared with 2019. This development reflects an acceleration in RATP EPIC's decarbonisation trajectory, consistent with the target.

This decrease is primarily attributable to the **very significant reduction in bus traction emissions** (-51% compared with 2019).

Estimated indirect emissions under scope 3 - 768 kilotonnes of CO₂eq in 2025 - increased by 74% between 2019 and 2025. This increase is mainly attributable to capital goods, due to the commissioning of major projects, as emissions are fully accounted for in the year of commissioning in accordance with the GHG Protocol methodology. In particular:

- infrastructure projects, notably the extension of metro line 11 in Paris and the extension of Paris tram line T3b;
- major works on industrial and tertiary sites, including the Vaugirard rail workshop and the adaptation of bus depots to new electric and bioCNG propulsion systems;
- acquisition of rolling stock, including low-emission buses (electric and bioCNG) and MP14 metro trains.

These substantial investments nevertheless represent, in most cases, necessary steps in the decarbonisation of RATP EPIC's activities and, more broadly, in the decarbonisation of mobility across the territory.

They contribute both to the expansion of public transport services and to continued decarbonisation efforts, within the broader transition towards lower-energy and lower-carbon transport solutions.

Climate change mitigation targets

In addition to its greenhouse gas reduction target, RATP EPIC has defined several targets linked to its key actions. These relate in particular to purchasing, energy performance and integration of renewable energy :

- with regard to **purchasing**, RATP EPIC aims to ensure that by 2027, **70%** of total purchasing expenditure is made with suppliers committed to the Science Based Targets initiative (SBTi) or an equivalent framework. By the end of 2025, this share stood at 53%;
- with regard to **energy performance**, RATP EPIC has set a target to reduce energy consumption per unit of service (measured in vehicle-kilometre) by **15%** by 2029 compared with 2019, excluding bus operations (reduction of 11.5% by the end of 2025);
- in addition, RATP EPIC has set two further targets: integrate **15% renewable energy** into its electricity mix by 2030 (5% by the end of 2025) and achieve **100% electric vehicles in its auxiliary vehicle fleet** by 2030 (over 18% by the end of 2025).

The RATP Group's 2025 Annual Financial and Sustainability Report is available on [our website](#).

OUR GREEN BOND PROGRAM

RATP is rated in compliance with standards from the French state on the following terms

- Strategic importance as the owner and infrastructure manager of urban transport in Paris
- Strong state support – 100% state-ownership
- Legally protected from events such as insolvency and bankruptcy procedures by virtue of its EPIC status (industrial and commercial public undertaking)
- Resilient budgetary performance and medium-term debt stabilization

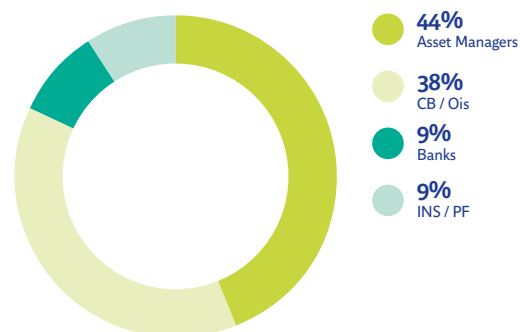
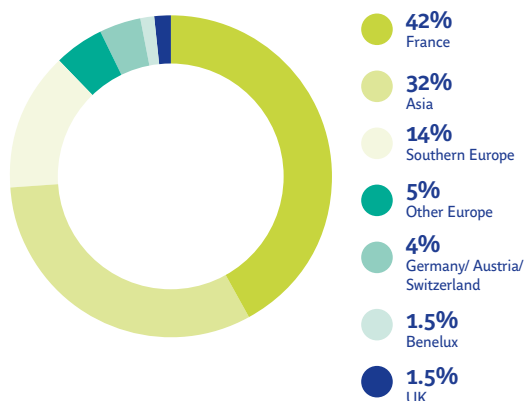
Aligned with the Green Bond Principles



Main characteristics of the 2024 operation

ISSUER	RATP
RATING	Moody's: Aa2 (stable) Fitch: AA- (stable)
ORDER BOOK	€5.1 billion
FINAL SIZE	€500 million
ISSUE DATE	2024-04-16
SETTLEMENT DATE	2024-04-23
MATURITY DATE	2034-05-25
PRICE/REOFFER YIELD	99.513% / 3.307%
COUPON	3.25%
SPREAD	OAT + 30 bps

Geographical and typological distribution of investors



Projects financed by the 2024 Green Bond - Summary

Massy train maintenance centre renovation

Adaptation of the maintenance site to accommodate the new rolling stock MI20 on the RER B

Category: Public transport infrastructures maintenance and renovation.

€107 million

financed by the bonds

26%

refinancing

Estimated avoided emissions

130 ktCO₂e

Metro line 6 upgrades

Adaptation of rail infrastructure on metro line 6 to accommodate the mid-life rolling stock of line 4 and modernization of the control system

Category: Public transport infrastructures maintenance and renovation

€118 million

financed by the bonds

46%

refinancing

Estimated avoided emissions

138 ktCO₂e

Major track maintenance on RER and metro networks

Renewing the networks' assets to maintain service quality and rail safety

Category: Public transport infrastructures maintenance and renovation

RER network

€140 million

financed by the bonds

38% refinancing

Estimated avoided emission

512 ktCO₂e

Metro network

€135 million

financed by the bonds

33% refinancing

Estimated avoided emissions

11 ktCO₂e



ALLOCATION OF BORROWED FUNDS

Allocation report at project level

	Total amount of proceeds Target 2024	Total allocated amount in 2025 and %
Massy train maintenance centre renovation 26% Refinancing	€107M	€65.00M 61%
Metro line 6 upgrades 46% Refinancing	€118M	€114.76M 97%
Major track maintenance on RER network 38% Refinancing	€140M	€137.87M 98%
Major track maintenance on metro network 33% Refinancing	€135M	€109.01M 81%
Total Inaugural green bond	€500M	€426.63M 85%

All projects financed by the 2024 Green Bond belong to category 1 : Public transport infrastructures maintenance and renovation. The 2017 and 2019 Green Bonds have been fully allocated. All relevant information regarding these issuances is available in the sustainable finance section of the RATP website.

Description of **PROJECTS FINANCED**
by **BOND PROCEEDS**

PROJET:

Massy train maintenance centre renovation



The Massy works are part of a larger project preparing for the arrival of new rolling stock to boost transport capacity for passengers on RER line B, where ridership has consistently, and significantly, increased since the 2000s.

The Massy site is the main repair and maintenance centre for RER line B trains. The site requires substantial upgrades to be able to accommodate and carry out maintenance on the new RER line B rolling stock, as the line carries over one million passengers daily on average. The new train model, MI20, is set to replace the current MI79 and MI84 trains, which have run on the line until present, and which are nearing end of life.

The project, which is to be implemented without altering RER line B's existing service quality, represents a technical challenge as works must be completed while keeping the site operational.

Financing for the works, which began in 2021 and will end in 2028, came overwhelmingly from 2024 Green Bonds. Three buildings, the oldest of which dates to 1969, will be demolished and rebuilt, leading to increased heat efficiency. These works are just one part of a larger renovation at the Massy site. The aim of these eco-designed buildings is to be certified under the French High Quality Environmental standard.

The investment project is also an opportunity to improve staff working conditions and safety, by facilitating maintenance work

Major sustainable benefits

- Optimised building and equipment energy efficiency.
- Upgraded lighting through the installation of LEDs.
- Improved staff working conditions and safety through roof access to train maintenance, reducing strain and accident risks.
- Better quality of life in the workplace with more comfortable temperatures, changes to natural and artificial lighting, and workstations offering greater user comfort.

KPIs

Amount of 2022/2027
works financed by
Green Bonds:

€107
million

Project-generated GHG
emissions between
2021 and 2067:

25
ktCO₂e

GHG emissions
avoided between 2021
and 2067:

130
ktCO₂e



PROJECT:

Metro line 6 upgrades

This project is part of an overall metro network upgrading programme, which began with the automation of metro lines 1 and 4, and upgrades to metro lines 3, 5, 9, 12, and 13, which involved creating upgraded CCPs and rolling out new train driving systems. The transport system upgrading programme is closely coordinated with rolling stock replacement programmes. Metro line 6 upgrades are tied to the replacement of trains in their end-of-life phase.

Upgrades to Paris metro line 6 reshape rail infrastructure to accommodate more modern rolling stock that formerly operated on metro line 4, prior to automation on the line. As a perfect demonstration of circularity on the network, this project repurposes mid-life rolling stock and upgrades railway signalling equipment, as well as the train control and monitoring system. The project is an opportunity for RATP to demonstrate its highly specialised, and environmentally frien-

dly, engineering expertise, notably through the recovery of traction energy from rolling stock to improve the line's energy efficiency.

Major sustainable benefits

- Improved passenger service quality by providing greater comfort and safety. Upgraded infrastructure and rolling stock make traffic more seamless and support an expanded service offering like that provided on automated lines. Moreover, refurbished MP89 trains enable better crowd

distribution and boast newer equipment and on-board video surveillance.

- Safer train travel through the implementation of continuous speed monitoring.
- Resource conservation by replacing end-of-life rolling stock with mid-life rolling stock available on the network.
- Improved energy efficiency on the metro line.
- Improved air quality, as these trains are designed to prioritise electric braking over mechanical braking, which is a source of particle emissions.

KPIs

Amount of the 2022/2027 project financed by Green Bonds:

€118
million

Project-generated GHG emissions between 2017 and 2045:

5
ktCO₂e

GHG emissions avoided with the project between 2017 and 2045:

138
ktCO₂e

PROJECT:

Major track maintenance on RER and metro networks

Major track maintenance on RER and metro networks aim to maintain existing rail network infrastructure in optimal operating condition, to continue to sustainably guarantee service quality and passenger safety. Conservational upkeep of these assets means regularly taking preventive action to replace track parts.

To that end, maintenance works are conducted yearly on RER lines A and B, as well as on all metro lines. Approximately 33,000 metres of tracks are replaced annually on the RER network, and 20,000 metres on the metro network, as well as an average of 33 pieces of track equipment. Heavy-duty track maintenance works also include the replacement

of ballasts, sleepers, fastenings, and sumps for water removal.

Funding for RER and metro track works undertaken between 2022 and 2027 is derived from 2024 Green Bonds. Respectively, the bonds amount to €140 million and €135 million.

Major sustainable benefits

Efficiency is a must, with operations planned based on the state of assets.

- Support for the circular economy by recovering and reusing dismantled non-hazardous materials for concrete sleepers, rails, and ballasts. Incorporation of recycled

materials into track equipment parts, and of low-carbon concrete for sleepers. Gradual addition of CSR clauses to supply and construction contracts.

- Resource conservation, by optimising water use at construction sites. Necessary washing of new ballasts undertaken on a closed circuit at the Sucy and Massy sites and, in ballast pits, by spraying, which uses less water. Monitoring of water consumption per km of upgraded track implemented.
- Diesel work trains replaced with electric trains to reduce the carbon impact of works.

KPIs

Amount of the 2022/2027 RER track works financed by Green Bonds:

€140 million

RER project-generated GHG emissions between 2022 and 2057:

68 ktCO₂e

GHG emissions avoided through the RER project between 2022 and 2057:

512 ktCO₂e

Amount of the 2022/2027 metro track works financed by Green Bonds:

€135 million

Metro project-generated GHG emissions between 2022 and 2072:

30 ktCO₂e

GHG emissions avoided through the metro project between 2022 and 2072:

11 ktCO₂e





METHODOLOGY FOR ASSESSING THE CARBON IMPACT OF PROJECTS

RATP, with support from consulting firm I Care by BearingPoint, implemented a methodology for calculating the carbon impact of Green Bond-financed projects. This methodology is notably based on ADEME's¹ (the French ecological transition agency) QuantiGES method for quantifying greenhouse gas emissions generated by a project or an activity.

Methodological principles

Green Bond-financed investment projects help build an optimised, reliable, and modern public transport service that discourages the use of more carbon-intensive transport modes and prevents greenhouse gas (GHG) emissions over time. However, as with any project, implementation is itself a source of GHG emissions. Calculating a project's carbon impact requires comparing GHG emissions generated by the project against those that it helps avoid over its life span, in other words, the “**net carbon impact**”.

Scope of included GHG emissions

Regardless of whether they are direct or indirect, GHG emissions across the **entire value chain** are included, as much from construction and operations as from investments' end of life. This notably includes upstream (for example, materials manufacturing) and downstream (waste treatment) GHG emissions. The scope of relevant impacts is defined by using a maximally exhaustive **consequence tree**.

Any element that directly or indirectly generates GHG emissions is called an **emission source**. For every emissions source, business-re-

lated technical data is converted into GHG emissions, by using **emission factors** from a variety of sources, in particular ADEME's Base Empreinte (Footprint Database).

Every project is examined according to a unique **time frame** that aims to be representative of the investment's life span without major changes.

Avoided GHG emissions

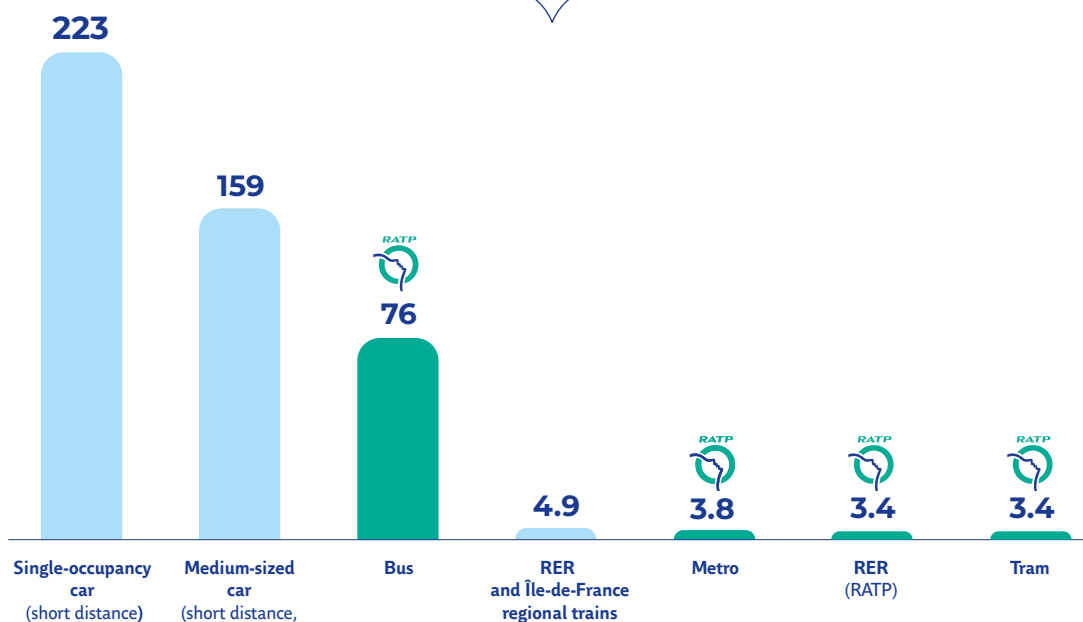
GHG emissions that were avoided with the project are calculated based on a **baseline scenario**, which is a hypothetical scenario in which the project was not implemented. Two types of emissions are studied for the baseline scenario:

- **Additional emissions generated by the absence of investment**, such as higher energy consumption in an unrenovated building.
- Emissions related to **modal shift changes**. As financed projects seek to maintain optimal transport service, their absence results in disrupted service, leading passengers to use alternative forms of transport (other routes on the public transport network or private cars, which result in different emissions). The below graph shows the differences in GHG emissions among various transport modes.

¹ QuantiGES Method “Quantifier l’impact GES d’une action de réduction des émissions” V3.2022, ADEME (in French)

CO₂eq emissions per passenger-kilometre – network operated by ratp group in Île-de-France

Grammes of CO₂eq per passenger-kilometre by transport mode – Ademe/RATP EPIC, 2024



GHG emissions generated by the project scenario and the baseline scenario are compared to determine avoided emissions. Nevertheless, Green Bond-financed projects are not the only factors ensuring good transport performance, so **weighting** is applied to emissions that were avoided through variations in the modal shift.

Focus on the modal shift and weighting

A study specific to every project was carried out to project how passengers would change transport modes (what is known as the modal shift) in the case of the baseline scenario. These projections take into account **expected changes related to urban development, improvements to transport service, and major factors including the arrival of the Grand Paris Express network, which will provide a practical alternative to private car use.** They also factor in progressive decarbonisation of private cars over the coming decades.

To measure avoided greenhouse gas emissions, two modelled situations are compared:

- One in which the project is implemented,
- And the baseline scenario in which no project is implemented.

The studied baseline scenarios assume, over time, total service suspensions on some lines, or significant deterioration of traffic

speed, and thus of transport service, compared to the project scenario. However, Green Bond financing covers only some of the investments required for overall service continuity on relevant transport routes. For example, investments to upgrade rolling stock will be necessary to maintain high service levels over the period in question.

To more precisely reflect the specific effect of Green Bond-financed projects, a **weighting ratio** is applied. This ratio adjusts the project's impact on the modal shift and avoided emissions, according to the real share of financing provided by Green Bonds. The applied formula is as follows:

Amount financed by the Green Bond issuance

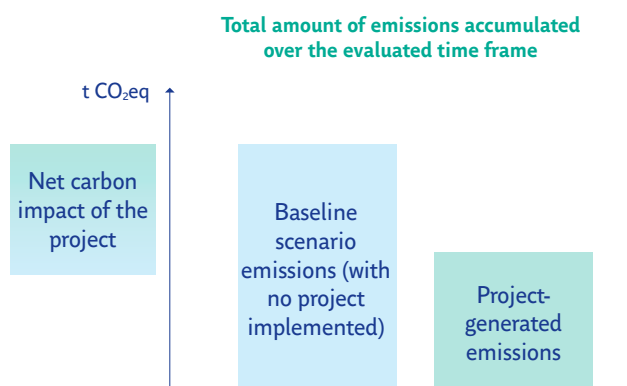
Total investment costs relative to the line's rolling stock and infrastructure

For every project, the ratio is calculated then applied to avoided emissions related to the modal shift.

Net carbon impact

A project's net carbon impact corresponds to the difference between GHG emissions resulting from the project (generated emissions), emissions tied to the baseline scenario, and variations from the generated modal shift.

Diagram showing the calculation of a project's carbon impact



Limits of the study

Although calculations aim to be exhaustive, some small emissions sources are not included. Moreover, emissions factors and data are sometimes subject to variable uncertainty. The study's assumptions and models are also subject to uncertainty, as they sometimes project distant time frames, and include occasionally radical baseline scenarios.

Project 1: Massy maintenance centre renovation

Key points

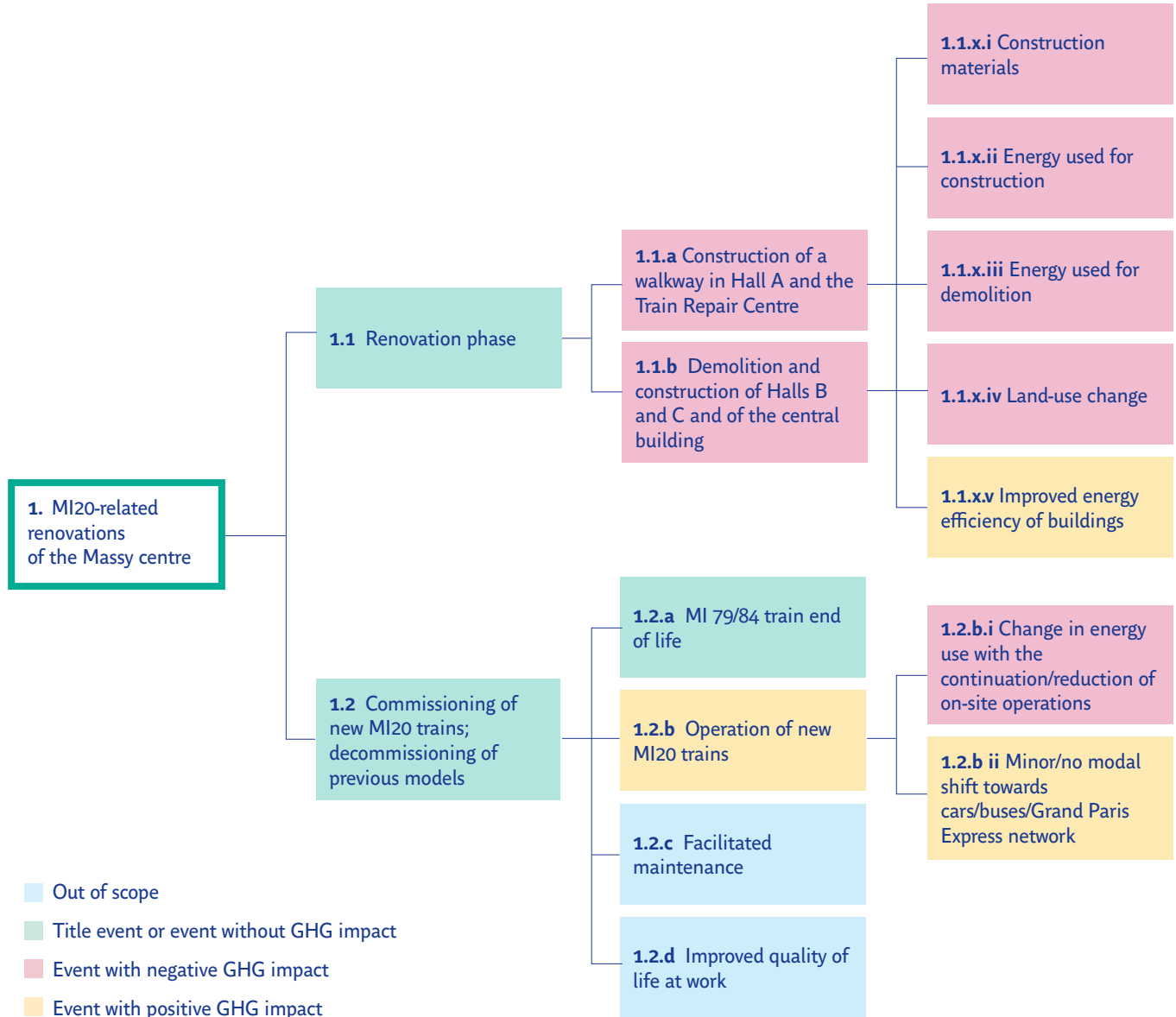
Project description	Renovation of the Massy train maintenance centre and train repair centre prior to the commissioning of the new RER line B rolling stock (MI20), in anticipation of the existing rolling stock's end of life.
Project goals	– Ensure that RER line B runs properly (1 million passengers daily) • Rolling stock is nearing end of life and must be replaced • The Massy maintenance centre is essential, and must be suited to the new rolling stock in order to carry out maintenance – Improve the heat efficiency of buildings, and quality of working life for on-site staff.
Nature of Green Bond-financed work	The renovation project includes 3 work phases for 3 building lots. The Green Bond finances phase 2 works: – Renovating the Massy train maintenance centre – Renovating the train repair centre
Carbon impact assessment time frame	2021-2067 <i>From the beginning of renovations works at the Massy centre to the end-of-life phase of new MI20 rolling stock (factoring in an average train life span of 40 years).</i>
Weighting of the modal shift's impact	3.5% <i>Proportion of the investment financed by the Green Bond as compared to total investment in the project scenario (investments in upgrading the Massy centre + the purchase of the new MI20 rolling stock, as well as its refurbishment at half-life to ensure 40 years of operations).</i>

Project consequence tree

Project consequence tree for the Massy renovation

Source: I Care

The below diagram illustrates the project's impact chain over its entire life span. The red and green boxes correspond to factors used to calculate carbon impact.



Minor renovation work (insignificant impact), existing rolling stock end of life (which would have occurred with or without the project), and the end of life of renovated buildings (outside the time frame) are not factored into in the study's scope.

Project-generated emissions

Sources of project-generated emissions (red boxes in the consequence tree) are detailed in the below table:

Emission source	Activity data		Emission factors	
	Source	Uncertainty	Source	Uncertainty
Construction				
Construction materials	Impact assessment	5%	Ex-ante LCA and BEGES ¹ – essentially the INIES database ² , corrected when necessary, after comparison with ADEME's Base Empreinte®	5 to 50%
Construction energy	Estimations based on CEREMA studies and impact assessment	50%	CEREMA studies, impact assessment	50%
Land-use change	Difference between hall areas before and after work	5%	Base Empreinte® (assumptions on the initial soil typology – grassland)	70%
Operations				
Energy - Site operations	Heat study of post-construction consumption	5%	Base Empreinte®/impact assessment	5%
Energy - Rolling stock maintenance	RATP expert assumptions	50%	Same as site operations	5%

¹ GHG emissions assessment

² Benchmark environmental and health data in the construction sector

Baseline scenario

In the baseline scenario, the **project has not been implemented**, i.e., renovation work has not taken place. The chain of events that follows was established with the support of project experts. In a situation where phase 2 of the Massy site renovations does not take place, the following is assumed:

- Rolling stock is replaced no matter what happens, as the existing structures are nearing end of life.
- The site has not been renovated to accommodate new rolling stock and is thus unable to carry out maintenance.
- Maintenance cannot be completed at RER line B's second maintenance centre (inadequate capacity), nor can it be done at RER line A maintenance centre (overly complex connections between lines).
- The new rolling stock is poorly maintained and breaks down frequently.
- In the short term, the RER line and the Massy site function normally, as existing rolling stock remains in circulation.
- In the medium term (2028-2030), as new rolling stock gradually replaces existing stock, breakdowns on new rolling stock lead to a 50% reduction in traffic.
- By 2030, **RER line B would completely shut down**.

This scenario may seem radical, but it is based on the essential role that the Massy site plays in RER line B's daily operations.

As a result, GHG emissions related to the baseline scenario are as follows:

- **Construction phase:** no works, no GHG emissions

- **Operations phase:** the site is operational until RER line B's estimated closure in 2030. The energy tied to rolling stock maintenance decreases as existing rolling stock is decommissioned, while energy from site operations remains unchanged.
- **Modal shift:** With the reduction in service, and subsequent closure of RER line B, passengers use other transport modes to get around. According to the above assumptions, the rest of the public transport network would absorb a significant share of these shifts, notably with the decommissioning of the Grand Paris Express network beginning in 2030, but private cars, which emit substantially more GHG, remain a significant alternative.

Baseline scenario predictions:

- Between 2021 and 2028, RER line B will run, with no modal shift effect between the project and the baseline scenarios.
- In 2028, the service offering on RER line B will see a 50% reduction.
- In 2030, RER line B will fully shut down (0% service), remaining closed until 2067.
- Operational decline will be linear between 2028 and 2030.

To assess the modal shift between 2035 and 2067, a 1% growth rate³ is assumed across transport modes.

³ Source: STIF 2001 - Evaluations socio-économiques et financière des projets de transports collectifs : méthode de calcul, paramètres et conventions (in French). « A central scenario, calculated using an average annual growth rate of 0% in Paris and 1% outside Paris for 30 years ». A 1% growth rate is used, as the majority of RER line B stations are outside Paris

Synthesis of results: Net carbon impact

25 ktCO ₂ e	Total project-generated emissions between 2021 and 2067 <i>Including construction: 53% (essentially materials)</i> <i>Including operations: 47% (essentially site operations)</i>
+ 2 ktCO ₂ e	Emissions generated in the baseline scenario, for site operations until 2030, taking into account a drop in activity as of 2028
+	
+ 153 ktCO ₂ e	Emissions generated in the baseline scenario (without the Massy maintenance centre renovation project), by modal shifts ⁴
=	
155 ktCO ₂ e	Total baseline scenario emissions
130 ktCO ₂ e avoided	Net carbon impact of the project between 2021 and 2067

⁴Results weighted according to the share that can be attributed to the Massy project (see above sidebar "Focus on the modal shift and weighting").

Project 2: Metro line 6 upgrades

Key points

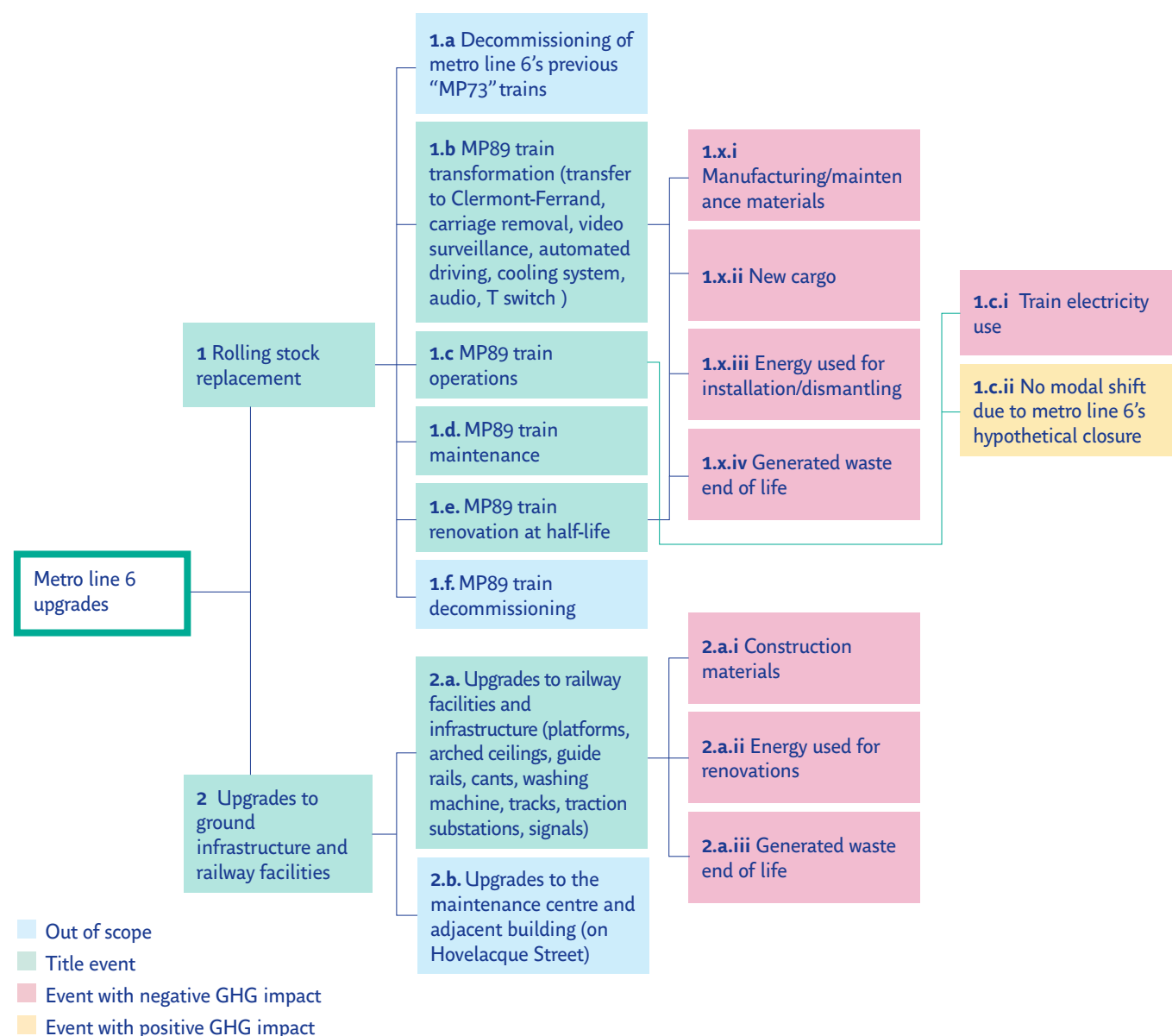
Project description	Adaptation and upgrades to rail facilities and infrastructure on metro line 6, to accommodate newer MP89 trains from Paris metro line 4, which are renovated for reuse on metro line 6.
Project goals	– Maintain the metro line 6 transport offering: existing trains are incapable of meeting the required rate of production and their upkeep has become costly – Reuse half-life rolling stock (from metro line 4, following its automation) – Recover energy from rolling stock traction, improving the metro line's energy efficiency
Nature of Green Bond-financed work	– Platform adjustments – Adaptation of the washing machine – Rail replacement – Track replacement in tightly curved sections – Add a new traction substation
Carbon impact time frame	2017-2045 <i>From the beginning of works to reused trains' end of life (20 years).</i>
Weighting of the modal shift's impact	41% <i>Proportion of the investment financed by the Green Bond as compared to the total investment in metro line 6 upgrades.</i>

Project consequence tree

The below diagram illustrates the project's impact chain over its entire life span. The red and green boxes correspond to factors used to calculate carbon impact.

Project consequence tree for metro line 6 upgrades

Source: I Care



The steps related to rolling stock replacements—although not financed by a Green Bond—are inextricable from metro line 6 upgrades and are therefore included in the scope of the carbon impact assessment. However, end of life of existing trains (MP73) and reused trains (MP89), which would have occurred with or without the project, is not taken into consideration, nor is the renovation of the maintenance workshop and adjoining building, which is related to, but not directly incorporated into, this project.

Project-generated emissions

Sources of project-generated emissions are detailed in the table below:

Emission source	Activity data		Emission factors	
	Source	Uncertainty	Source	Uncertainty
Construction				
Construction materials	RATP documents RATP expert comments	5 to 50%	Base Empreinte, INIES database, provisional GHG emissions assessment for train upgrades	10 to 100%
Construction energy	RATP documents RATP expert comments	35 to 50%	Base Empreinte, INIES database, provisional GHG emissions assessment for train upgrades	5 to 80%
Cargo (Transformation and renovation of trains in Clermont-Ferrand)	Provisional GHG emissions assessment for train upgrades RATP expert comments	50%	Provisional GHG emissions assessment for train upgrades	50 to 80%
Construction waste	RATP expert comments	20%	Base Empreinte	20%
End of life	Same as construction for relevant items	5 to 50%	Base Empreinte INIES database	10 to 50%

Baseline scenario

In the baseline scenario, the **project has not been implemented**, i.e., adaptation and upgrade works have not taken place on metro line 6, and trains have not been replaced. The scenario is based on the following rationale:

- Existing trains (MP73) will reach end of life by the end of 2025 and must be replaced.
- Even if the selected trains had not previously been used, all newer train models would require renovations and upgrades to the metro line's rail infrastructure and facilities.
- These works are therefore essential for continued operations on metro line 6.

→ In the absence of Green Bond-financed work, metro line 6 would be required to **fully close** as of 2026.

In the absence of works, the baseline scenario generates **no GHG emissions**.

As for the **modal shift**, following a metro line 6 closure in 2026, the vast majority of passengers would use another route on the public transport network, notably the RER and Grand Paris networks. However, it is estimated that a large share of passengers would use private cars, which emit significantly more GHG. New planned public transport offerings, notably the Grand Paris project, were included in modal shift assessments.

Synthesis of results: Net carbon impact

5 ktCO ₂ e	Total project-generated emissions between 2017 and 2045 <i>Including construction: 94% majority cargo, followed by construction materials</i>
0 ktCO ₂ e	Emissions generated in the baseline scenario, for line operations, between 2017 and 2045
+	
143 ktCO ₂ e	Emissions generated in the baseline scenario (without the renovation project), by modal shifts ⁵
=	
143 ktCO ₂ e	Total baseline scenario emissions
138 ktCO ₂ e avoided	Net carbon impact of the project by 2045

⁵ Results weighted according to the share that can be attributed to the metro line 6 upgrade project (see above sidebar “Focus on the modal shift and weighting”).

Project 3: Annual heavy-duty RER maintenance

Key points

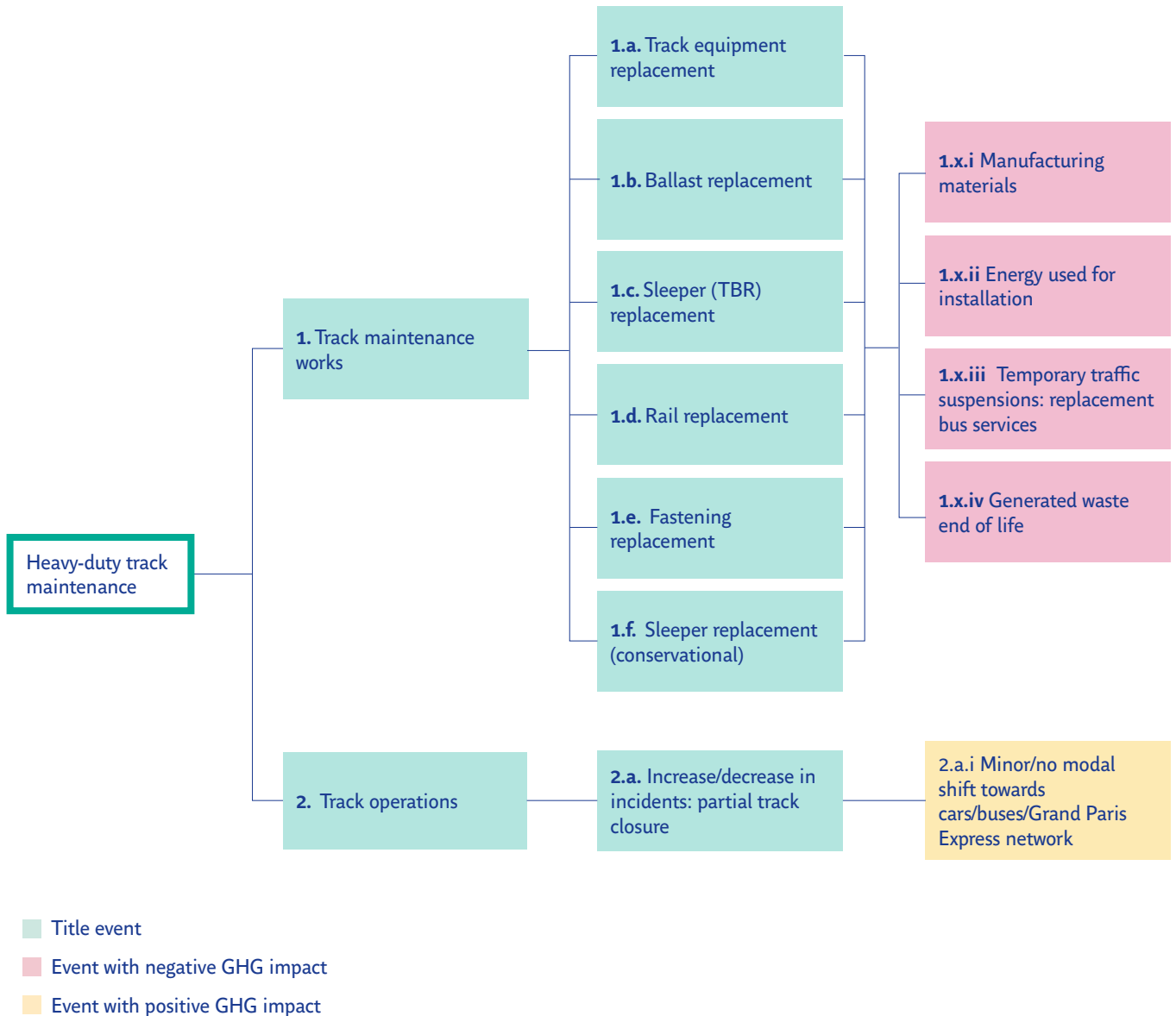
Project description	Annual heavy-duty track work on RER lines A and B over 6 years (2022-2027)
Project goals	– Conduct preventive maintenance on tracks to prevent incidents – Guarantee service quality and safety on RER lines A and B (2 million passengers daily)
Nature of Green Bond-financed work	– Track replacement: rails, ballasts, sleepers, and fastenings – Replacement of track equipment (approximately 15 pieces of equipment replaced every year) <i>Areas in which replacements are made depend on the state of the tracks and vary from year to year. The Green Bond covers maintenance over a 6-year period.</i>
Carbon impact time frame	2022-2057 <i>From the beginning of works to upgraded components' end of life (30 years).</i>
Weighting of the modal shift's impact	14% <i>Proportion of the investment financed by the Green Bond as compared to the total investment necessary for service continuity on RER lines A and B over this period.</i>

Project consequence tree

The below diagram illustrates the project's impact chain over its entire life span.

Project consequence tree for heavy-duty track maintenance on RER lines A and B

Source: I Care



Works may require temporary traffic suspensions on the network, in which case replacement bus services will run. The calculation of the scope considers this outcome.

Project-generated emissions

Sources of project-generated emissions (red boxes in the above consequence tree) are detailed in the table below:

Emission source	Activity data		Emission factors	
	Source	Uncertainty	Source	Uncertainty
Construction				
Construction materials	RATP documents and studies (Modelling of a linear metre of RER track)	20 to 50%	Base Empreinte	N.A.
Construction energy	Estimation in accordance with Ecoinvent assumptions	50%	N.A.	N.A.
Modal shift due to temporary traffic suspensions	Estimate of previous years' replacement bus services	N.A.	RATP	N.A.
End of life	Same as construction materials	20 to 50%	Base Empreinte	N.A.

Baseline scenario

In the baseline scenario, the project has not been implemented, i.e., annual heavy-duty maintenance works on metro tracks have not been conducted. The resulting chain of events has been developed with assistance from RATP experts. The baseline scenario is based on the following rationale:

- As the works are preventive, existing rolling stock will continue to run normally for several years.
- Over time, track equipment will age without upkeep, and speed limits will become necessary for trains to run safely.
- At lower speeds, trips will take longer, and trains will run less frequently.

→ In the short term, from 2022 to 2027, the transport offering will remain stable.

→ In the medium and long term, from 2027 onwards, metro lines will be subject to speed limits that will reduce service.

Without works, the baseline scenario will generate **no emissions**.

As for the **modal shift**, when factoring in connections on RER lines A and B, a substantial number of passengers will likely turn to the rest of the metro and train network, as well as the Grand Paris Express network once it is commissioned. Nonetheless, cars will remain a significant, and much higher-emitting, alternative.

Synthesis of results: Net carbon impact

68 ktCO ₂ e	Total project-generated emissions between 2022 and 2057 <i>Including construction: 72% (essentially materials)</i> <i>Significant share of steel</i>
0 ktCO ₂ e	Emissions generated in the baseline scenario between 2022 and 2057
	+
581 ktCO ₂ e	Gap in modal shift-generated emissions between the project and the baseline scenario ⁶
	=
581 ktCO ₂ e	Total baseline scenario emissions
512 ktCO ₂ e avoided	Net carbon impact of the project by 2057

⁶ Results weighted according to the share that can be attributed to heavy-duty RER track maintenance works (see above sidebar "Focus on the modal shift and weighting").

Project 4: Annual heavy-duty metro maintenance

Key points

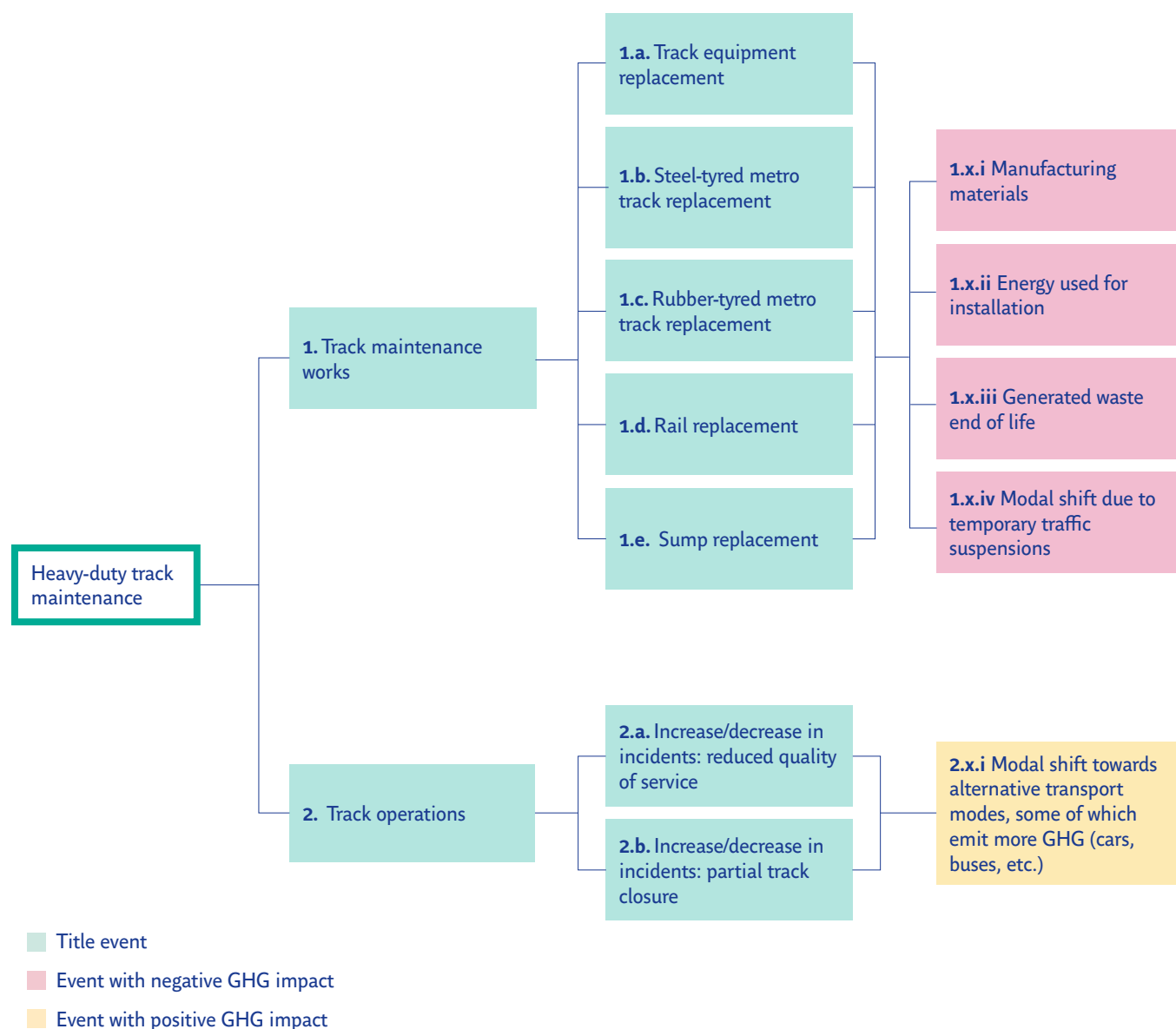
Project description	Annual heavy-duty track works on all metro lines over 6 years (2022-2027)
Project goals	– Conduct preventive maintenance to prevent incidents – Guarantee service quality and safety on the Paris metro network (over 1.5 billion passengers yearly)
Nature of Green Bond-financed work	– Track replacement: rails; ballasts; sleepers and fastenings (steel-tyred metros) or guide rails; running tracks and insulation (rubber-tyred metros) – Replacement of track equipment (approximately 18 pieces of equipment replaced every year) – Replacement of sumps (2 to 3 per year) <i>Areas in which replacements are made depend on the state of the tracks, and vary from year to year. The Green Bond covers maintenance over a 6-year period.</i>
Carbon impact time frame	2022-2072 <i>From the beginning of works to upgraded components' end of life (maximum 50 years)</i>
Weighting of the modal shift's impact	1.4% <i>Proportion of the investment financed by the Green Bond as compared to the total investment necessary for service continuity on the metro network over this time period, combined with the share of the network subject to works (11%).</i>

Project consequence tree

The below diagram illustrates the project's impact chain over its entire life span.

Project consequence tree for heavy-duty metro track maintenance

Source: I Care



Works may require temporary traffic suspensions on the network, in which case replacement bus services will run. The calculation of the scope considers this outcome.

Project-generated emissions

Sources of project-generated emissions (red boxes in the consequence tree) are detailed in the below table:

Emission source	Activity data		Emission factors	
	Source	Uncertainty	Source	Uncertainty
Construction				
Construction materials	RATP documents RATP expert comments (Modelling of a linear metre of both steel- and rubber-tyred metro track)	20 to 50%	Base Empreinte	N.A.
Construction energy	Estimation in accordance with Ecoinvent assumptions	50%	N.A.	N.A.
Modal shift due to temporary traffic suspensions	Estimate of previous years' replacement bus services	N.A.	RATP	N.A.
End of life	Same as construction materials	20 to 50%	Base Empreinte	N.A.

Baseline scenario

In the baseline scenario, the project has not been implemented, i.e., annual heavy-duty maintenance works on metro tracks have not been conducted. The resulting chain of events has been developed with assistance from RATP experts. The baseline scenario is based on the following rationale:

- As the works are preventive, existing rolling stock will continue to run normally for several years.
- Over time, track equipment will age without upkeep, and speed limits will become necessary for trains to run safely.
- At lower speeds, trips will take longer, and trains will run less frequently.

→ In the short term, from 2022 to 2027, the transport offering will remain stable.

→ In the medium and long term, from 2027 onwards, metro lines will be subject to speed limits that will **reduce service**.

Without works, the baseline scenario will generate **no emissions**.

Regarding the **modal shift**, as the metro network overwhelmingly serves the City of Paris, a substantial number of passengers will likely turn to the rest of the network, notably RER lines but also bus and tram routes. Nonetheless, cars will also be part of the modal shift.

Synthesis of results: Net carbon impact

30 ktCO ₂ e	Total project-generated emissions between 2022 and 2057 <i>Including construction: 71% (essentially materials)</i> <i>Significant share of steel</i>
0 ktCO ₂ e	Emissions generated in the baseline scenario between 2022 and 2072
	+
41 ktCO ₂ e	Gap in modal shift-generated emissions between the project and the baseline scenario ⁷
	=
41 ktCO ₂ e	Total baseline scenario emissions
11 ktCO ₂ e avoided	Net carbon impact of the project by 2072

⁷ Results weighted according to the share that can be attributed to heavy-duty metro track maintenance works (see above sidebar "Focus on the modal shift and weighting").



ATTESTATION BY ONE OF RATP EPIC STATUTORY AUDITORS

**Report of the statutory auditor on the verification of a selection
of information disclosed in the green bond impact report**

Year ended December 31st 2025

To the Executive Management of Régie Autonome des Transports
Parisiens (RATP),

In our capacity as Statutory Auditor of Régie Autonome des
Transports Parisiens (RATP), (the “**entity**”), we have undertaken
a limited assurance engagement on the following information
(the “**Information**”), in relation with the Green Bond issuance on
April 16th 2024 presented in the Green Bond Allocation and Impact
Report (the “**Report**”), available on the entity’s website:

- the allocation, as of December 31st, 2025, of funds raised by
the entity through the Green Bonds issued on April 16th 2024
(the “**Issuances**”) contained in the Report,
- the projects financed by the Issuances and identified as eligible
by the entity (the “**Eligible Projects**”).

The Information has been prepared in the context of the “**Green
Bond Framework**” (the “**Framework**”) defined by the entity, and
available on the entity’s website¹.

Conclusion

Based on the procedures we performed, as described under the
«Nature and scope of procedures» paragraph, and the evidence
we obtained, nothing has come to our attention that causes us to
believe that the Information is not prepared, in all material respects,
in accordance with the Framework available on the entity’s website.

Preparation of the Information

The absence of a commonly used and generally accepted reporting
framework or of a significant body of established practices on which
to draw to assess and measure the Information allows for different,
but acceptable, measurement techniques that can affect compara-
bility between entities and over time.

Consequently, the Information needs to be read and understood
together with the Framework

Responsibility of the entity

Management of the entity is responsible for:

- selecting or establishing suitable criteria for preparing the
Information,
- selecting the Eligible Projects regarding the eligible criteria,
- preparing the Information in accordance with the “**Framework**”,
- designing, implementing, and maintaining internal control over
information relevant to the preparation of the Information that is
free from material misstatement, whether due to fraud or error.

Responsibility of the Statutory Auditor

Based on our work, our responsibility is to provide a report expres-
sing a limited assurance conclusion on the fact that the Information
is free from material misstatement, whether due to fraud or error,
and has been prepared, in all material respects, in accordance with
the Framework.

¹ <https://ratpgroup.com/fr/medias-et-publications/finance/finance-durable/>

As we are engaged to form an independent conclusion on the Information as prepared by management, we are not permitted to be involved in the preparation of the Information as doing so may compromise our independence.

It is not our responsibility to:

- Challenge the eligibility criteria as defined in the Framework, and, in particular, we give no interpretation on the final terms of this Framework,
- Form an opinion on the effective use of the funds allocated to the Eligible Projects after such funds were allocated,
- Form an opinion on the impact indicators published in the Report.

Applicable professional guidance

We performed our limited assurance engagement in accordance with the professional guidance issued by the French Institute of statutory auditors (Compagnie nationale des commissaires aux comptes “CNCC”) applicable to such engagement and international standard ISAE 3000 (revised)².

Our independence and quality control

Our independence is defined by the provisions of Article L. 822-11 of the French Commercial Code and the French Code of Ethics for Statutory Auditors (*Code de déontologie*) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures aimed at ensuring compliance with applicable legal and regulatory requirements, ethical requirements and the professional guidance issued by the French Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*) relating to this engagement.

Means and resources

Our work was carried out by an independent and multidisciplinary team including specialists in sustainable development and corporate social responsibility.

Nature and scope of procedures

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Information is likely to arise.

To assess this risk, we took into account the entity’s internal controls on the preparation of the Information in order to design appropriate assurance procedures, and not with the purpose of expressing a conclusion as to the effectiveness of the entity’s internal control system.

The procedures we performed were based on our professional judgment. In carrying out our limited assurance engagement on the Information:

- We became aware of the stability of the reporting procedures as compared to last year and relied on the interviews and due diligences conducted in the previous years with the responsible parties for the information collection, with the Directions in charge of overseeing the collect of the Information and, where appropriate, with those responsible for internal control and risk management procedures,
- We assessed the suitability of the procedures used by the entity to report the Information with respect to their relevance, completeness, reliability, neutrality and understandability, taking into account, where appropriate, best practices within the sector,
- We verified the existence of internal control and risk management procedures implemented by the entity,
- We verified the consistency of the Information with the accounting records and underlying data,
- We reviewed the processes used for data collection, aggregation, processing, monitoring and control, in particular the procedures relating to the allocation of funds as of December 31st, 2025,
- On the basis of a representative sample of expenses:
 - verify the eligibility of these expenses with regard to the eligibility criteria defined in the Framework,
 - verify the concordance of the amounts of the expenses as of December 31st, 2025, with the accounts and the data underlying the accounts,
- verify that the amount of funds allocated to projects is less than or equal to the amount of these projects as of December 31st, 2025.

² ISAE 3000 (Revised) - Assurance Engagements Other Than Audits or Reviews of Historical Financial Information

The procedures performed in a limited assurance review are less in extent than for a reasonable assurance opinion in accordance with the professional guidance of the French Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*), a higher level of assurance would have required us to carry out more extensive procedures.

This report has been prepared within the context described above and may not be used, distributed or referred to for any other purpose.

Paris la Défense, July 3rd, 2026

KPMG S.A.

Romain Mercier
Partner

Brice Javaux
ESG Expert



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