HEC Paris Carbon Footprint Report

2025 GHG Inventory & Strategic Insights

June 2026
V2.0lea

south pole The Climate Company

HEC PARIS

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I. Executive summary

Executive summary

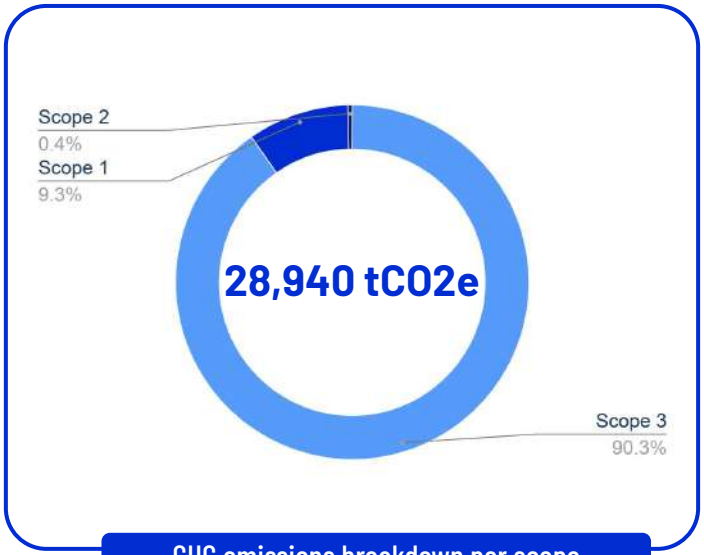
In 2025, HEC Paris' operational carbon footprint was evaluated at **28,940 tonnes of CO_2 equivalent (tCO_2e).** This comprehensive greenhouse gas (GHG) assessment was conducted by South Pole based on reported activity data.

Scope	Category	2025 emissions (tCO2e)	Share %	2022 emissions (tCO2e)	Evolution 2025/2022 (%)
Scope 1 (direct emissions)	Fugitive emissions	104	0.4%	986	-89%
	Mobile combustion	30	0.1%	19	60%
	Stationary combustion	2,552	8.8%	2,457	4%
Scope 2 (market-based)	Grid (building)	115	0.4%	225	-49%
Scope 2 (location-based)	*Grid*	380	1.3%	225	69%
Scope 3 (indirect emissions)	Purchased goods and services	5,844	20.2%	9,403	-38%
	Capital goods	138	0.5%	926	-85%
	Fuel and energy related activities (market-based)	693	2.4%	594	17%
	Upstream transportation and distribution	12	0.0%	0	0%
	Waste generated in operations	40	0.1%	87	-54%
	Travels: Students, Staff & Visitorsle	18,646	64.4%	18,316	2%
	Employee commuting	765	2.6%	704	9%
Total (market-based)		**28,940**	**100%**	**33,717**	**-14%**
Total (location-based)		**29,173**	**100%**	**33,717**	**-13%**

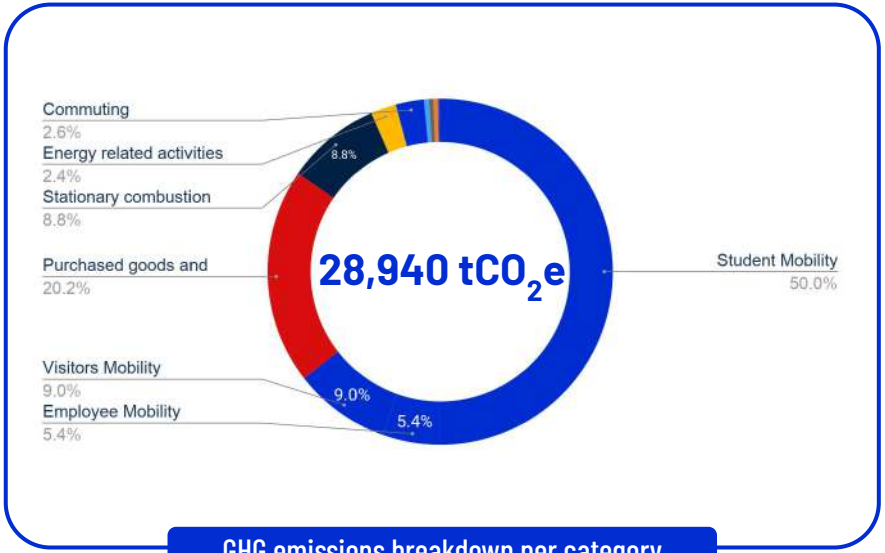
*Note: 2022 data is provided for indicative purposes and baseline reference only. Due to significant updates in recalculation methodologies and reporting boundaries between the two cycles, direct comparison between 2022 and 2025 results need to be contextualized (see next slides).

Emissions Profile: Scope 3 as the Primary Driver

- **Scope 3 Dominance:** Mobility and Procurement emissions dictate HEC Paris' footprint, representing **90.3% of total emissions with 26,137 tCO_2e.**
- **Mobility & Travel:** The aggregate of **student, employee, and visitor** travel remains the absolute highest contributor to the carbon footprint. This category accounts for 19,101 tCO_2e.
- **Procurement:** Purchased goods and services represent the second-largest emission source overall, contributing **5,844 tCO_2e** (approx. 20.2% of the total footprint).



GHG emissions breakdown per scope



GHG emissions breakdown per category

5 Key Takeaways from the 2025 Carbon Footprint Assessment

Higher data precision, clear operational progress, and a strategic monitoring of both travel and digital trends.

2025 is the new emissions baseline

- Shifting to precise activity data provides a robust, audit-ready baseline compared to 2022.
- Mobility tracking data is now much more precise, robust, and exhaustive than in the previous exercise.
- Key sectors were thoroughly cleaned up, including refrigerant leak rates and the visitor round-trip survey.
- This provides a reliable database to build and track our future decarbonization roadmap.

Physical activity data integrated to steer future choices

- Moving 11.2% of Purchased Goods & Services (PG&S) from financial spend estimates to physical data is a key milestone.
- This allows HEC to measure true carbon performance independently of monetary budget growth and inflation.
- The next step is to require verified Product Carbon Footprints (PCF) from top vendors at contract renewal.

Students mobility remains the primary impact and challenge

- Transportation remains the biggest impact, with mobility accounting for 64.4% of HEC's total emissions.
- Sharp drops in student volumes can be entirely canceled out by carbon-intensive destination choices.
- Total travel distances are stable with no spectacular surge in kilometers, showing that mobility impact remains controlled despite external constraints on destinations.

Executive Education: Managing opposing trends

- Executive programs generate 34% of HEC's total emissions, heavily driven by international flights and hotel nights (e.g., Doha EMBA).
- Moderate footprint increase (+8%) driven by scope expansion and baseline corrections: While the total executive learner headcount contracted (-27%), the category evaluation is more precise due to methodological adjustments and new inclusions (such as hotel nights).

Digital Innovation: Strategic monitoring of Generative AI

- While not yet fully quantified, expert estimation suggests the direct carbon footprint of GenAI tools on campus is limited.
- Global data center growth and electricity demands, combined with the likely massive intensification of use by students, represent a real risk for coming years.
- Many questions from stakeholders show a strong need to monitor usage habits and build a digital frugality framework before emissions rise.

Scope 1 & 2: Direct Campus Energy & Operations

Real performance on renewable electricity balanced by methodological and perimeter updates across Scope 1.

Scope	Category	Emissions 2025 (tCO2e)	Emissions 2022 (tCO2e)	Evolution (%)	Comments
Scope 1	**Fugitive emissions**	104	986	-89%	[Methodological Shift] **Massive footprint decrease (-89%) driven by a refined accounting methodology:** While the 2022 baseline conservatively included the entire inventory of cooling gases, the 2025 assessment strictly accounts only for potential refrigerant leaks from HEC's cooling facilities. This methodological shift, using a 15% leak rate assumption, perfectly aligns with the resulting reduction.
	Mobile combustion	30	19	60%	[Scope Expansion] **Significant footprint surge (+60%) driven by geographic scope expansion:** While fuel consumption for the historical Jouy-en-Josas fleet saw only slight increases (petrol up 5%, diesel up 16%), the newly expanded 2025 reporting perimeter integrates company vehicles at the Doha campus.
	Stationary combustion	2,552	2,457	4%	[Exogenous Factor Change] **Natural gas consumption decreased by 5%, emission factor rose by 10%.** Because natural gas dominates this category (accounting for 98% of all stationary combustion emissions), this updated factor fully offset the energy savings and drove the overall increase.
Scope 2 (market-based)	**Electricity consumption (Building)**	115	225	-49%	[Operational Progress] **Major footprint decrease (-49%) driven by a transition to 100% renewable energy:** While electricity consumption at the Jouy-en-Josas campus slightly decreased (-3%) and moved entirely to renewables, the category's remaining footprint is now almost exclusively driven by the newly included Doha campus. Although Doha represents only 4% of total electricity volume, its local energy mix is ten times more carbon-intensive than the French grid, generating 95% of the total emissions for this category.

Scope 3: Procurement, Supply Chain & Capital Assets

Apparent footprint reductions heavily driven by baseline data cleanups and physical tracking transitions.

Scope	Category	Emissions 2025 (tCO2e)	Emissions 2022 (tCO2e)	Evolution (%)	Comments
Scope 3	**Purchased goods and services**	5,844	9,403	-38%	**[Methodological Shift] Apparent drop (-38%) driven by baseline cleaning and updated factors:** - Boundary Corrections: We removed 2,700 tCO2e of travel and hotel costs from this category and reallocated them to Mobility. This correction completely offsets a +20% growth in HEC's operating revenue and a 153% surge in auxiliary services. - Data Quality: Transitioned 11.2% of the category to precise physical data (proactive engagement by HEC Paris allowed to collect accurate physical data from top vendors) and updated all remaining - Increased spends: It is important to note that this emissions reduction occurred despite clear indicators of increased institutional activity, including a 20% growth in operating revenue (from €39.7M in 2022 to €47.3M in 2025) and a 153% surge in purchased auxiliary services.
	Capital goods	138	926	-85%	**[Methodological Shift] Massive reduction (-85%) due to physical unit tracking:** - Methodology Update: This spectacular drop is a calculation artifact. We moved away from broad financial spend multipliers to a precise, itemized physical inventory (unit-by-unit tracking). - Real Trend: To isolate our real performance: when calculated under the traditional financial method, the underlying structural decrease of this category is -32%.
	Fuel and energy related activities (market-based)	693	594	17%	**[Factor and Scope Change] Growth (+17%) driven by updated emission factors and Doha integration**: Scope & Factors: This increase reflects the broader geographic integration of the Doha campus combined with updated regulatory emission factors for upstream fuel and electricity supply chains.

Scope 3: Campus Waste & Daily Employee Commuting

Exogenous carbon factor revisions on waste offsetting workforce and perimeter growth on commuting.

Scope	Category	Emissions 2025 (tCO2e)	Emissions 2022 (tCO2e)	Evolution (%)	Comments
Scope 3	**Waste generated in operations**	40	87	-54%	**[Exogenous Factor Change] Sharp emissions reduction driven by regulatory factor updates:** - Activity Data: Reporting boundary expanded to include downstream waste treatment. Physical volumes show a double trend: E-Waste volumes rose by +53%, while General Waste (DIB) dropped by -7%. - Emission Factors: ADEME updated its carbon factors, increasing the E-Waste (+147%) but reducing General Waste (-86%). - Final Impact: The lower carbon factor for General Waste (-60% emissions) completely offset the explosion in E-Waste, leading to an artificial -54% drop.
	Employee commuting	765	704	9%	**[Scope Expansion] Moderate emissions growth driven by headcount increase and boundary extensions**: - Activity Data: HEC's tracked workforce grew by +6%, rising from 771 individuals in 2022 to 817 in 2025. - Methodology Update: The 2025 reporting perimeter was expanded to encompass long-distance rail commutes for non-Paris-based employees (modeled on the basis of one round trip per working week). Furthermore, commute distances are now calculated granularly using each employee's specific home address, replacing the 2022 methodology which relied on a flat average estimate (previously set at a 20 km round trip for internal combustion engine vehicles). - Thermal vehicle use increase: The cohort of staff commuting via thermal vehicles increased from 526 to 568 individuals, representing an 8% increase in private vehicle utilization for daily commutes.

Student Mobility: Core Programs & Academic Tracks

Flat macro trends masking opposite dynamics between Executive Program growth (+8%) and sharp drops in Academic Exchanges (-59%).

GHG Category	Travel category	Emissions 2025 (tCO2e)	Emissions 2022 (tCO2e)	Evolution (%)	Comments
Student Mobility	Intra-program travel (Executive Program)—Other travel (students)	9378	8655	+8%	**Global emissions are stable because opposite internal trends balanced each other out.** **[Methodological Shift] - Exec Open (5,732 tCO2e | +296%).** Emissions multiplied by four. This increase is due to a strong jump in per-student intensity (from 0.6 to 3.3 tCO2e), driven by baseline data corrections and an expanded reporting scope. This methodological change completely offset the fact that the actual student population fell from 2,446 down to 1,714 learners. **[Methodological Shift] - Exec Custom (2,416 tCO2e | -52%).** Emissions fell from 5,026 to 2,416 tCO2e. This -52% drop is driven by a combination of fewer learners and a lower per-student footprint. First, the total cohort decreased from 5,495 to 4,115 learners. Second, per-student intensity dropped from 0.9 to 0.6 tCO2e because we transitioned from a generic flat-ratio estimate in 2022 to precise distance tracking. **[Business Shift] - EMBA (674 tCO2e | -65%)**. Total emissions fell from 1,902 to 674 tCO2e. This reduction is mostly driven by a smaller cohort size, which was nearly cut in half from 927 down to 480 learners, directly lowering travel volumes. At the same time, carbon intensity per student also improved, dropping from 2.1 to 1.4 tCO2e. **[Business Growth] - TRIUM (556 tCO2e | +101%)** Absolute emissions doubled from 277 to 556 tCO2e. This big increase happened because the student headcount rose heavily from 18 in 2022 to 207 in 2025. This high number of new learners completely wiped out a major gain in individual efficiency, even though carbon intensity per student dropped from 15.7 down to 2.7 tCO2e.
	Academic Exchanges and Double Degrees	1551	3777	-59%	**[Operational Progress & Data Cleanup] Sharp footprint drop driven by data corrections and shorter travel distances:** - Headcount Stability: The overall student headcount remained stable and comparable between both exercises (1,028 vs. 1,044 in 2025). - Travel Reduction: The lower footprint comes from a major decrease in actual travel distances, highlighted by an 85% drop in emissions for Incoming PGE Dual Degrees. - Baseline Correction: We corrected a 2022 geographic mapping error that had artificially inflated our original baseline data.

Student Mobility: Extended Scope & New Perimeters

Higher reporting transparency driven by newly integrated data streams across internships, study trips, and startup hubs.

GHG Category	Travel category	Emissions 2025 (tCO2e)	Emissions 2022 (tCO2e)	Evolution (%)	Comments
Student Mobility	Trips that were not included in 2022	**+1 341**	0	**+++**	**[Scope Expansion] 1,341 tCO2e added to the baseline through scope optimization.** The 2025 assessment newly integrates five key areas that were completely unmeasured in 2022. This newly tracked data captures emissions from the Deep Tech Center, Île-de-France internal mobility, Grande École internship commuting, MBA events, and the entire Station F hub ecosystem.
	Recruitment-related travel	1091	918	**+19%**	**[Business Growth] Driven by higher activity in international student talent sourcing (Youth and Summer programs).** The number of learners who attended the Youth & Summer programs increased by 560% (from 111 to 733 learners in 2025), however, the average distance travelled by learners decreased by 34% (from 4900 km to 3250 km in 2025)
	Daily Commutes of Start-up Founders including Video Conferencing Classes	452	5	**+9056%**	**[Scope Expansion] While local daily commuting assumptions remained stable and unchanged from 2022, the 2025 perimeter newly includes international flights for overseas students and startup founders.** Including their round-trip flights from their countries of origin added long-haul aviation data to a previously local-only category.
	Internship-Related Travel— Learners	405	275	**+47%**	**[Carbon-Intensive Travel Choices] Significant footprint increase driven by a major shift from train to air travel.** Across GE and MS programs, the number of students flying to their internships more than tripled, jumping from 214 in 2022 to 752 in 2025, which replaced lower-carbon rail options.
	Study Trips - Learners (Voyages d'études)	258	250	**+3%**	**[Carbon-Intensive Travel Choices] Choosing high-impact long-haul destinations** (San Francisco flights alone generated 130 tCO2e) and adding new hotel tracking (+54 tCO2e) completely wiped out all the savings from the headcount reduction. Total emissions rose +3% despite a massive -54% drop in learners participants.
	Video Conferencing Classes—Video Conferencing Classes	134	48	**+177%**	**[Travel Avoidance] Expanding online classes for major programs** (EMBA, Exec Open, Exec Custom, TRIUM, and Summer programs) increases local IT footprint but acts as a highly effective lever to avoid much more impactful international flights.
	Learners commuting	9	106	**-92%**	**[Scope change] - Massive footprint reduction (-92%) driven by a sharp contraction in student headcount:** While the average distance traveled per student remained perfectly stable, the student population counted inside this category fell from 5,000 in 2022 to just 422 in 2025. This drop is directly proportional to this population reallocation toward specific programs.

Operational Mobility: Employees, Visitors & Campus Events

Controlled employee travel trends balanced by high survey precision for campus visitors (-35%) and event recovery (+13%).

GHG Category	Travel category	Emissions 2025 (tCO2e)	Emissions 2022 (tCO2e)	Evolution (%)	Comments
Employee and Other Mobility	Employees' Business Travel by Air	1498	1475	+2%	[Increased Distances] **Small footprint increase (+2%) driven by longer flight distances**: While overall travel frequency remained flat (approx. 1,950 trips), total passenger-kilometers rose from 6.53 million to 7.34 million.
	Employees' Business Travel by Other Means of Transportation	76	93	-19%	[Methodological Shift] **Transition to centralized tracking** - Employee ground travel data (rail, taxi, public transit) is now pulled directly from the Notilus platform, replacing the financial estimates used in 2022. - Financial emission factors usually overestimate carbon impact, meaning this data cleanup largely explains the -19% drop and limits direct year-over-year comparisons.
	Service providers and other occasional visitors to campus	510	784	-35%	[Methodological Shift] **Footprint decrease driven by a more precise campus survey:** - Methodology Update: The 2025 calculation replaces the generic 2022 "one-way" travel estimates with an accurate survey tracking actual round-trip journeys. - Activity Data: Total tracked visitor travel distance decreased by 31% (from 3.5M km down to 2.4M km). - Final Impact: The reduction reflects a much higher data precision rather than a real emission reduction.
	Events	1931	1715	+13%	[Methodological Shift] **Refined visitor tracking and post-pandemic recovery** - The 2022 baseline exceptionally aggregated three graduating classes (10,000 students) due to pandemic disruptions, compared to a single normal cohort in 2025 (6,500 students). This drop in volume was entirely offset by upgrading our model to track visitor round-trips instead of 2022's one-way estimates. - Travel distance metrics remained strictly consistent between both exercises, using a baseline of 200 km for domestic visitors and 1,500 km via air travel for international participants. - Corporate and career event attendance grew by 10% to reach 4,042 visitors. This operational recovery was accompanied by a 14% shift toward private vehicle usage, driving the overall +13% increase.

II. Results

Results Overview

HEC Paris 2025 Carbon Footprint

TOTAL EMISSIONS

28,940

tCO_2e (Market-based)

Methodological Note: ** A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice): it derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation or for unbundled attribute claims (e.g. RECs, GOs, etc.).*

Scope 1: Direct Emissions

Stationary and mobile combustion linked to assets operated by HEC Paris (heating, fuels).

2687 tCO2e

9.3 % of total

Scope 2: Purchased Energy

Indirect emissions linked to purchased electricity and heat (market-based method*).

115 tCO2e

0.4 % of total

Scope 3: Value Chain

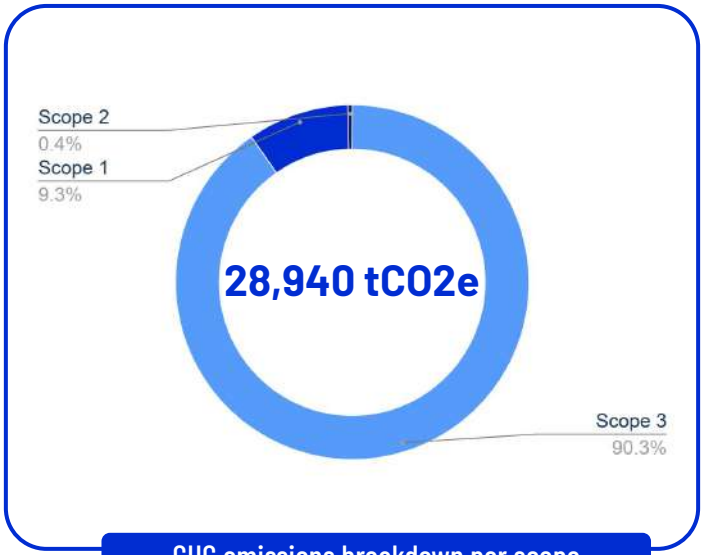
Peripheral activities: business travel, student commuting, and purchased goods & services.

26137 tCO2e

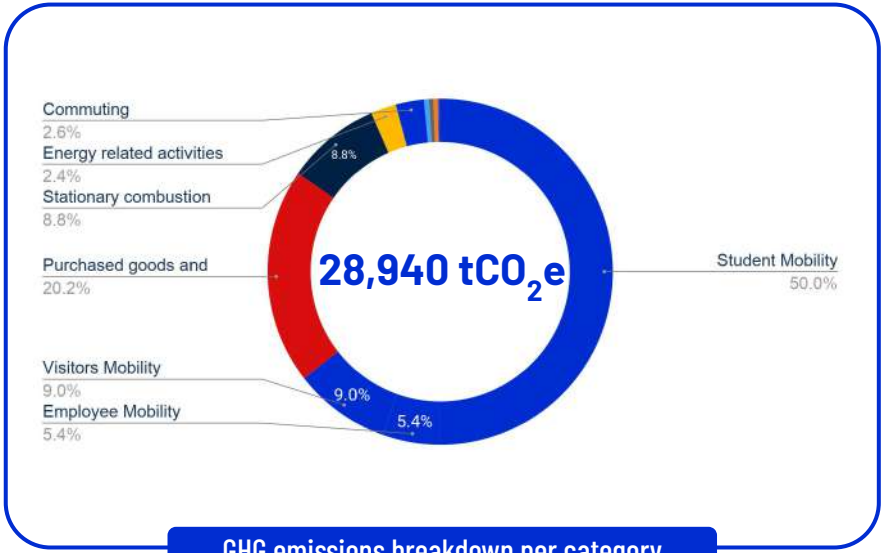
90.3 % of total

Emissions Profile: Scope 3 as the Primary Driver

- **Scope 3 Dominance:** Indirect value chain emissions dictate HEC Paris' footprint, representing **90.3% of total emissions with 26,137 tCO_2e.**
- **Mobility & Travel:** The aggregate of **student, employee, and visitor** travel remains the absolute highest contributor to the carbon footprint. This category accounts for 19,101 tCO_2e.
- **Procurement:** Purchased goods and services represent the second-largest emission source overall, contributing **5,844 tCO_2e** (approx. 20.2% of the total footprint).



GHG emissions breakdown per scope



GHG emissions breakdown per category

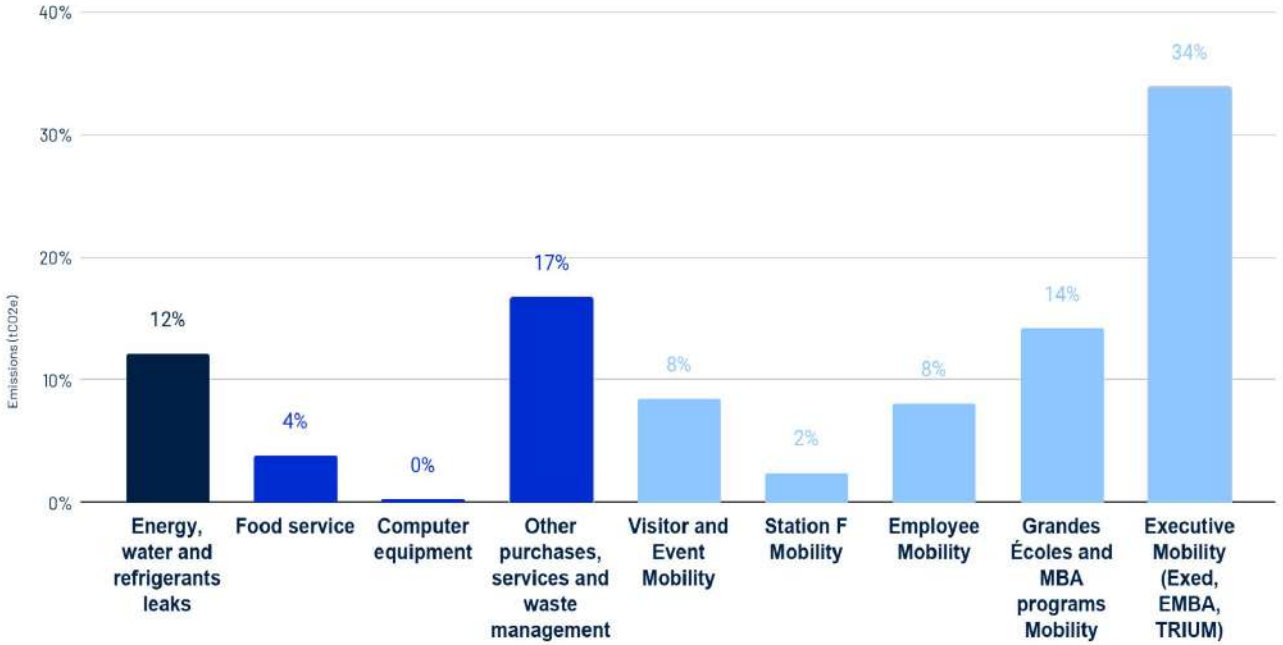
Operational View: Total Emissions by Activity

28,940 tCO₂e in 2025 | **100%** of total emissions

Aggregate mobility across all academic and executive programs drives **two-thirds (66%)** of HEC Paris' operational emissions.

Executive mobility alone accounts for **34%** of the total footprint, highlighting the primary lever for future decarbonization strategies.

Total emissions breakdown

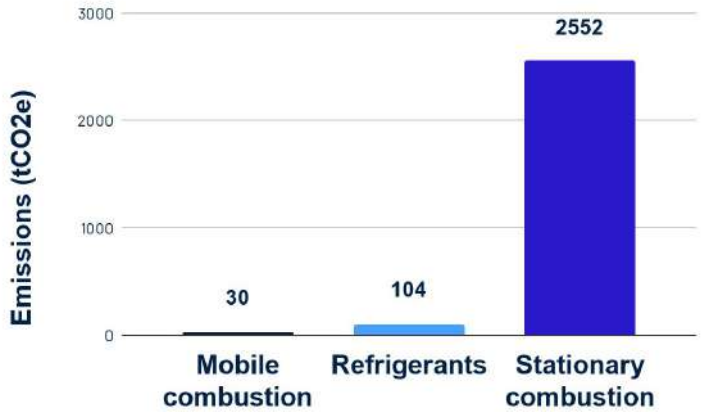


Emissions by Scope

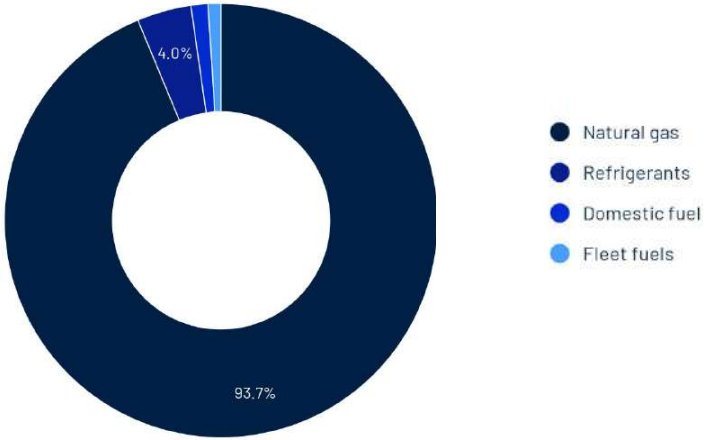
Scope 1 Emissions Breakdown

2,687 tCO_2e in 2025 | **9.3%** of total emissions

Scope 1 emission breakdown by category



Scope 1 emission breakdown by source



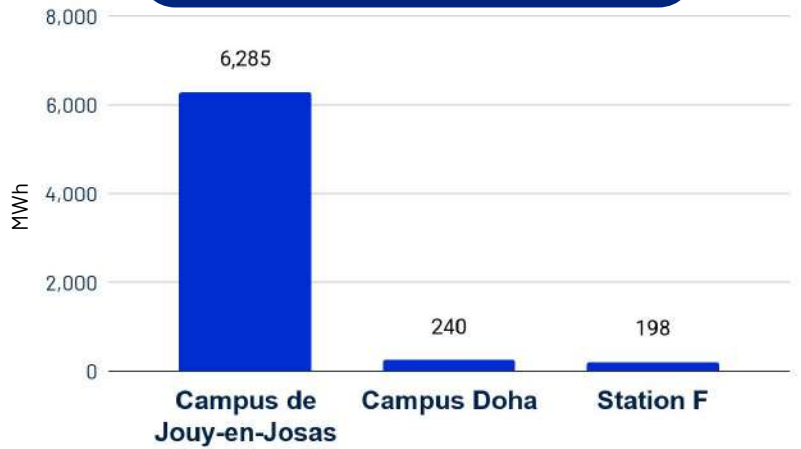
Key findings

- Natural gas consumed for building heating is the primary driver, representing 93.7% of Scope 1 (2,519 tCO_2e).
- Refrigerant leakages from air conditioning equipment (104 tCO_2e) and mobile combustion from the car fleet (30 tCO_2e) are the remaining minor contributors.

Scope 2 Emissions Breakdown

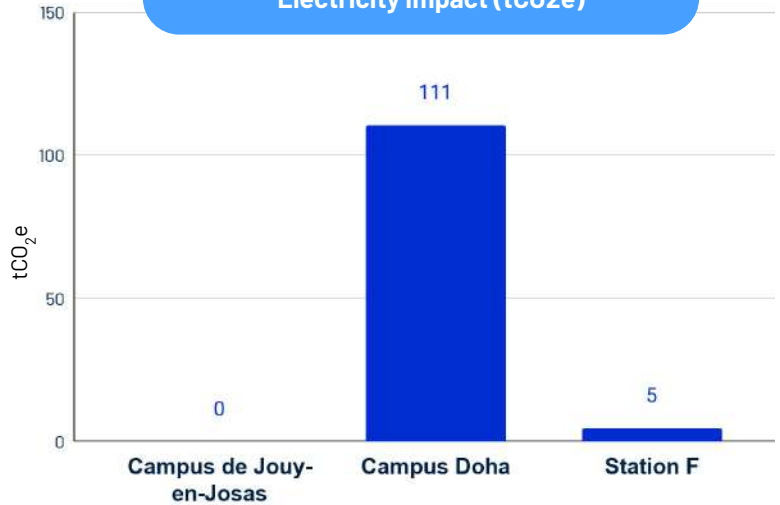
115 tCO₂e in 2025 | **0.4%** of total emissions

Electricity consumption (MWh)



Total electricity consumption : 6,723 MWh

Electricity impact (tCO2e)



Key findings

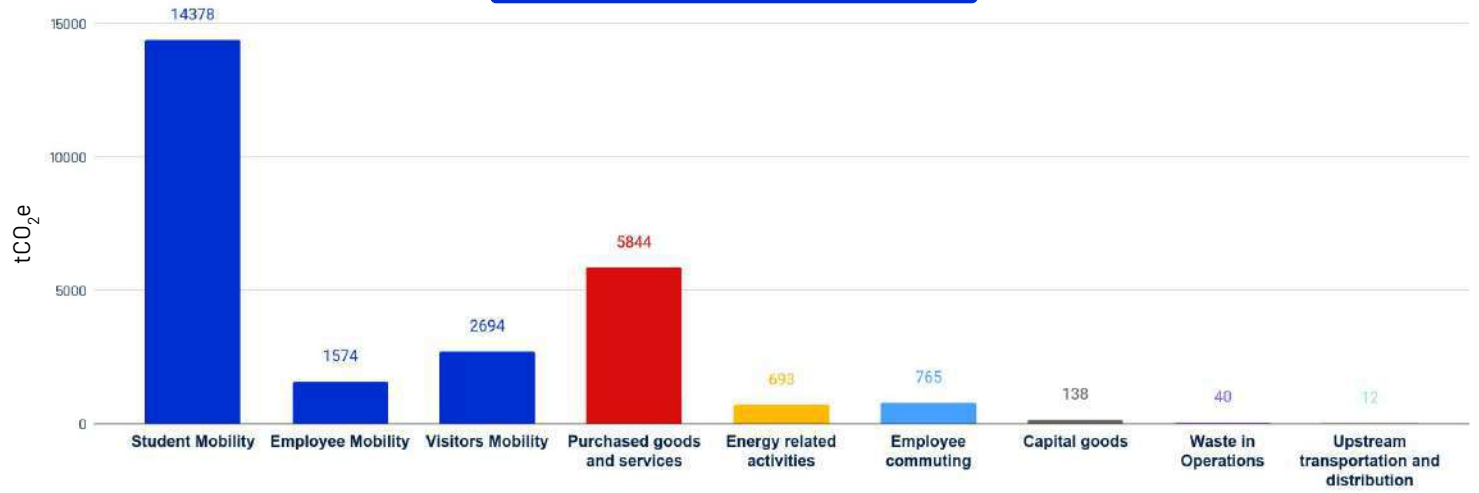
- Electricity consumption is the only source of impact in **scope 2.**
- 100% Renewable Energy: The Jouy-en-Josas campus is entirely powered by renewable energy sources, resulting in "zero market-based emissions".
- Geographical Carbon Intensity: The majority of Scope 2 impact stems from **Doha**, as Qatar's electricity grid carbon intensity is approximately **11x higher** than the French average.

Methodological Breakdown: Scope 3 Emissions

26,137 tCO_2e in 2025 | **90.3%** of total emissions

- 44% Student
- 19% Employees
- 10% Visitors
- 22% Purchased goods and services
- 3% Energy upstream emissions
- 1% Employee commuting
- <1% Capital Goods

Scope 3 emissions



Emissions by categories

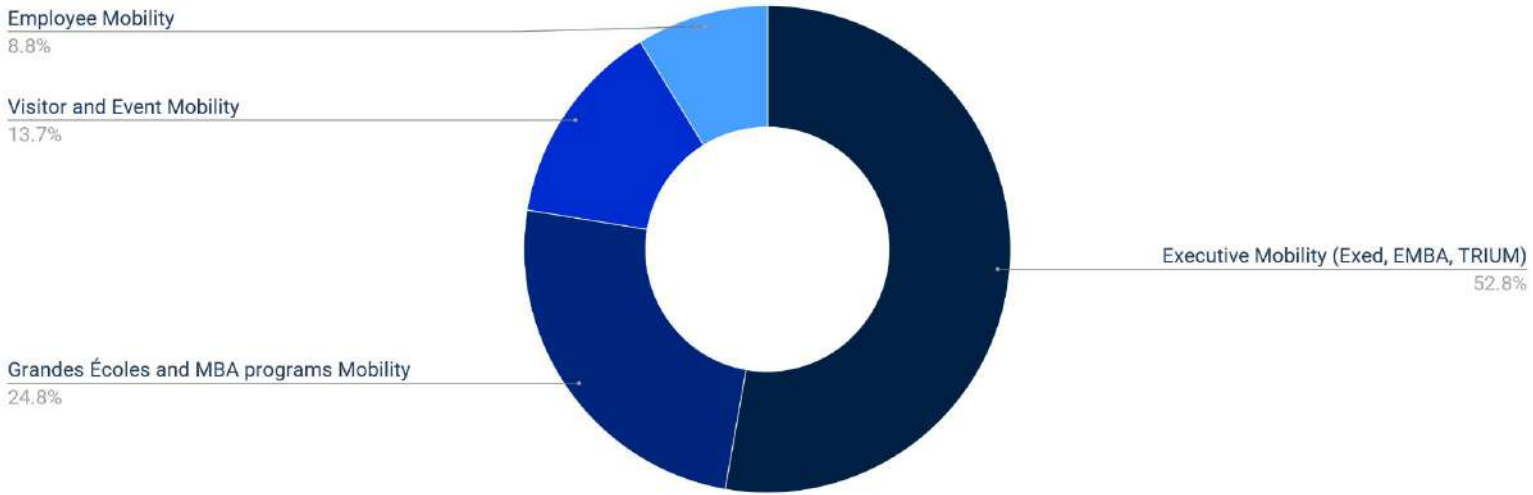
Mobility

Scope 3: Transportation of People

Overview by Stakeholder Category

18,646 tCO_2e in 2025 | **64.4%** of total emissions

Transportation emissions, by mobility type



Key findings

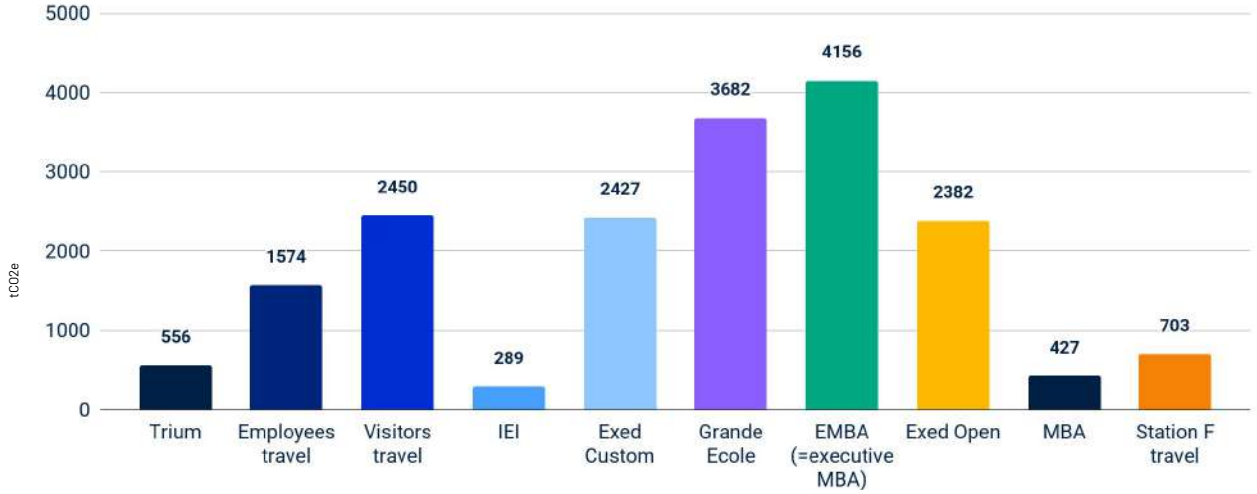
- **Executive Dominance:** Executive Mobility (incl. (including EMBA, Trium, and Youth & Summer) is the absolute main driver**,** representing over half (52.8%) of all transportation-related emissions.
- **Academic Programs:** Grande Ecole and MBA programs constitute the second largest block (24.6%), driven primarily by international mobility, internships, and recruitment.
- **Employee & Visitor Impact:** Business travel and employee commuting account for the remaining quarter (22.6%) of this scope.

Scope 3: Transportation of People

Emissions Volume by Category

18,646 tCO_2e in 2025 | **64.4%** of total emissions

Emissions Volume by Academic Program



Key findings

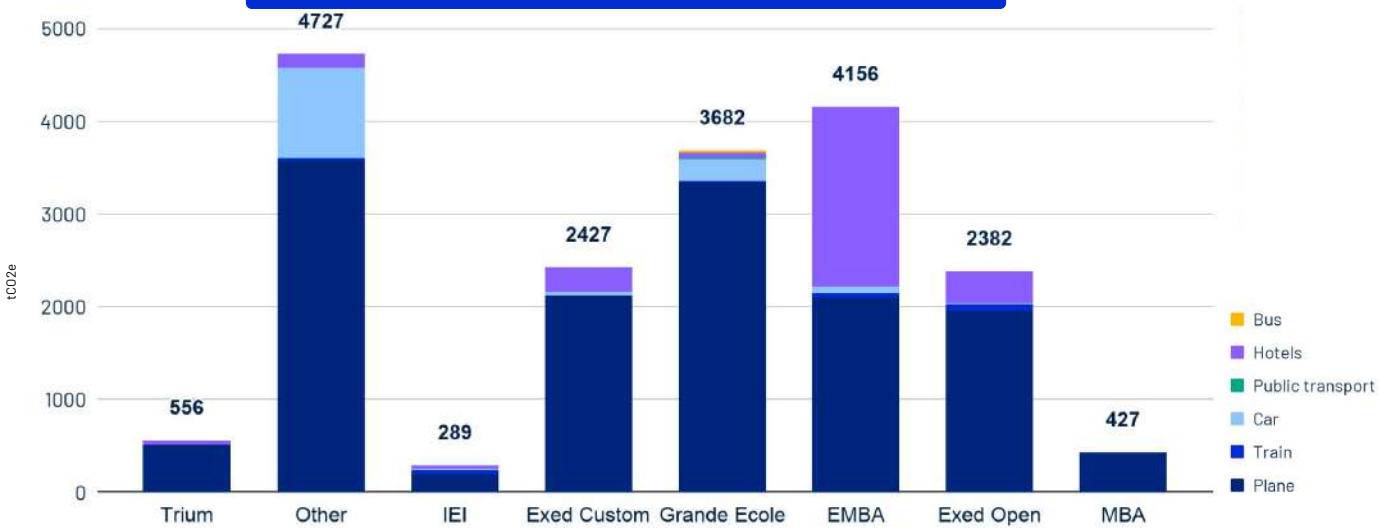
- **"Non-Student" category:** Among the "non-student" travel emissions, the visitors has the highest impact.
- **The Executive Impact:** The EMBA program (4,156 tCO_2e) generates a higher absolute carbon footprint than the entire Grande Ecole program (3,682 tCO_2e), pointing to a significantly higher carbon intensity per capita in executive education.
- **The Weight of Executive Education:** When aggregated, all Executive formats (EMBA, Exed Custom, Exed Open, Trium, IEI) total nearly 10,000 tCO_2e, driving more than half of the institution's entire transportation footprint.

Scope 3: Transportation of People

Breakdown by Transport Mode & Accommodation

18,646 tCO_2e in 2025 | **64.4%** of total emissions

Transportation emissions, by mobility type



Key findings

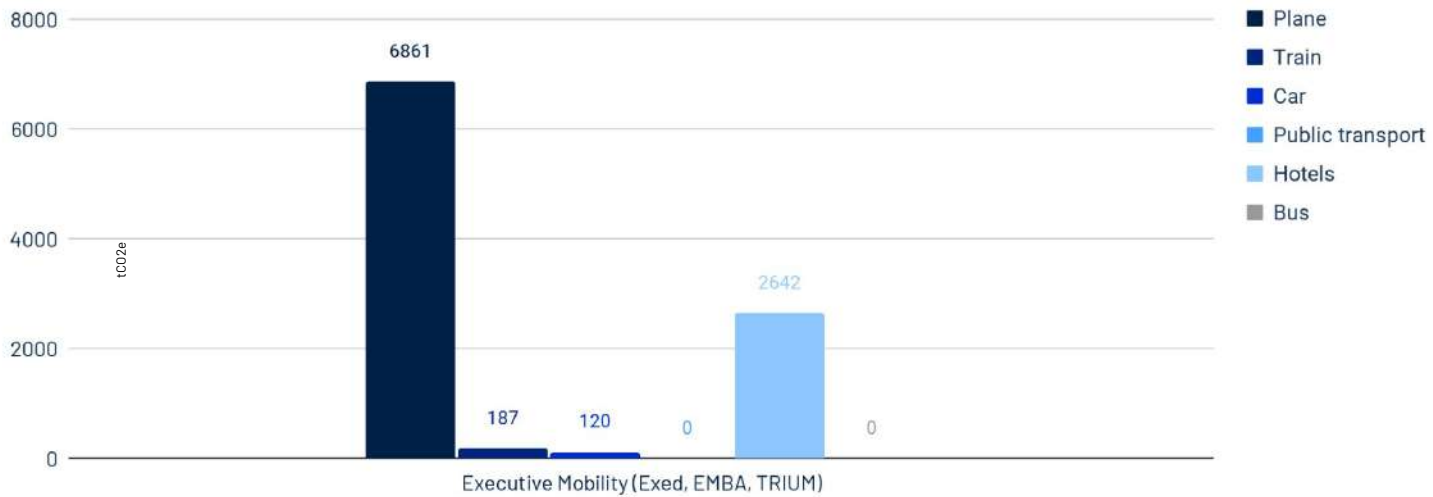
- **Aviation Dominance:** Air travel is the undisputed leading emission source across virtually all programs, exposing a structural reliance on flying, particularly for Grande Ecole and Executive mobility.
- **Accommodation Impact:** Overnight stays represent a massive portion of the footprint. It is almost exclusively concentrated in three programs: Exed Custom, EMBA, and Exed Open.
- **Doha Campus Impact:** Tied exclusively to three programs (Exed Custom, EMBA, and Exed Open), the Doha Campus is a major driver of accommodation emissions. International sessions for the Doha Hors Custom program generated over 36,000 hotel nights across Qatar, France, the UK, and Saudi Arabia—with 41% of these stays concentrated in Saudi Arabia alone.

Scope 3: Transportation of People

Executive mobility

9,810 tCO₂e in 2025 | **33.4%** of total emissions

Emissions from Executive Programs by mobility type



Key findings

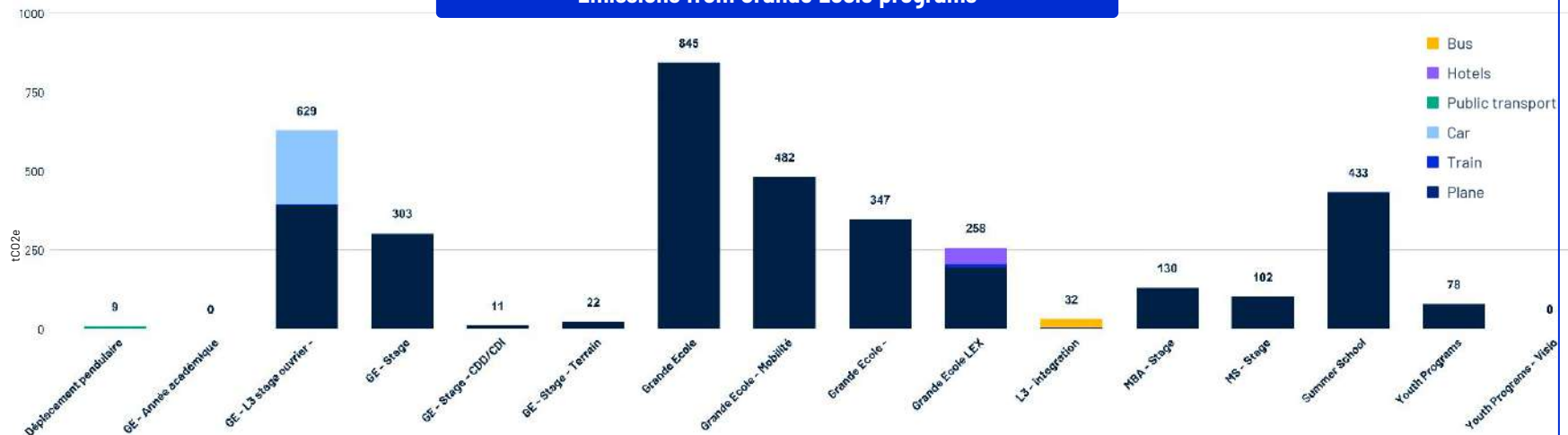
- **Primary Driver:** Aviation is the dominant contributor to Executive program emission, exposing a structural reliance on flying for executive education formats.
- **Top Emitting Programs:** Half of all executive mobility emissions are generated by just two specific cohorts: the Doha EMBA (35%) and a major Exec Custom Program (CMA CGM) (15%).
- **Accommodation Footprint:** Hotel stays constitute the second-largest emission source. The Doha EMBA alone generates 1,900 tCO₂e purely from accommodation during its international sessions (Saudi Arabia, France, and the UK).

Scope 3: Transportation of People

Grande Ecole Program

3,682 tCO₂e in 2025 | **12.7%** of total emissions

Emissions from Grande Ecole programs



Key findings

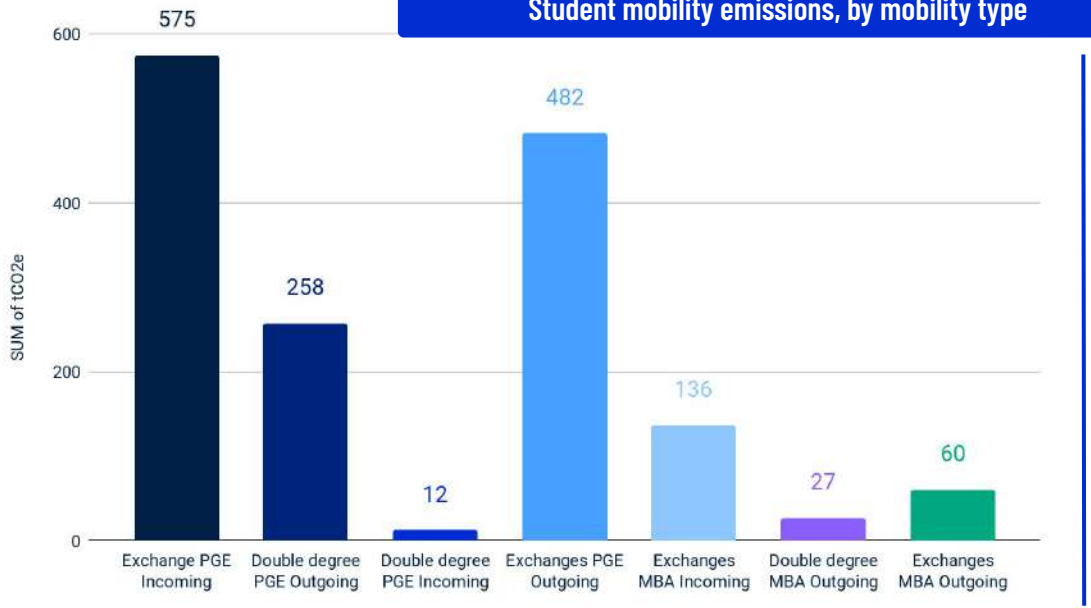
- **Label precision:** We decided to keep the same labels as in the Carbon Footprint evaluation to allow a direct comparison with the working files provided. Hence "Grande Ecole" refers to PGE Exchanges and Double Degree of learners.
- **Overwhelming Air Travel Dominance:** Long-haul flights drive virtually all emissions—peaking at 845 tCO2e for the Exchange/Double degree mobility program.
- **L3 Internship Car Impact:** This is the only category driven by private car emissions, accounting for one-third of the emissions (>200 tCO2e).

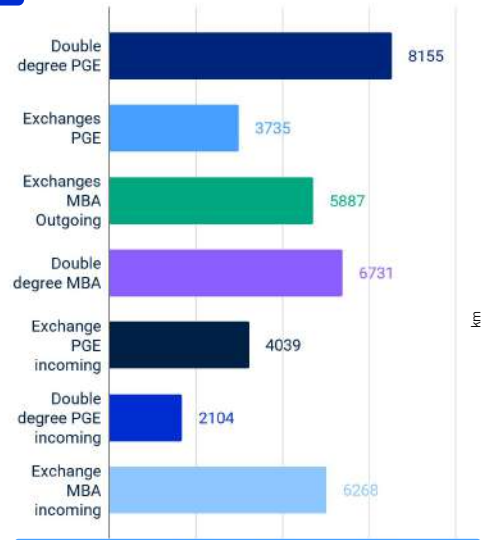
Scope 3: Student Mobility

Incoming/Outgoing mobility

1,551 tCO₂e in 2025 | **5.4%** of total emissions

Student mobility emissions, by mobility type





Average distance travelled per program

Key findings

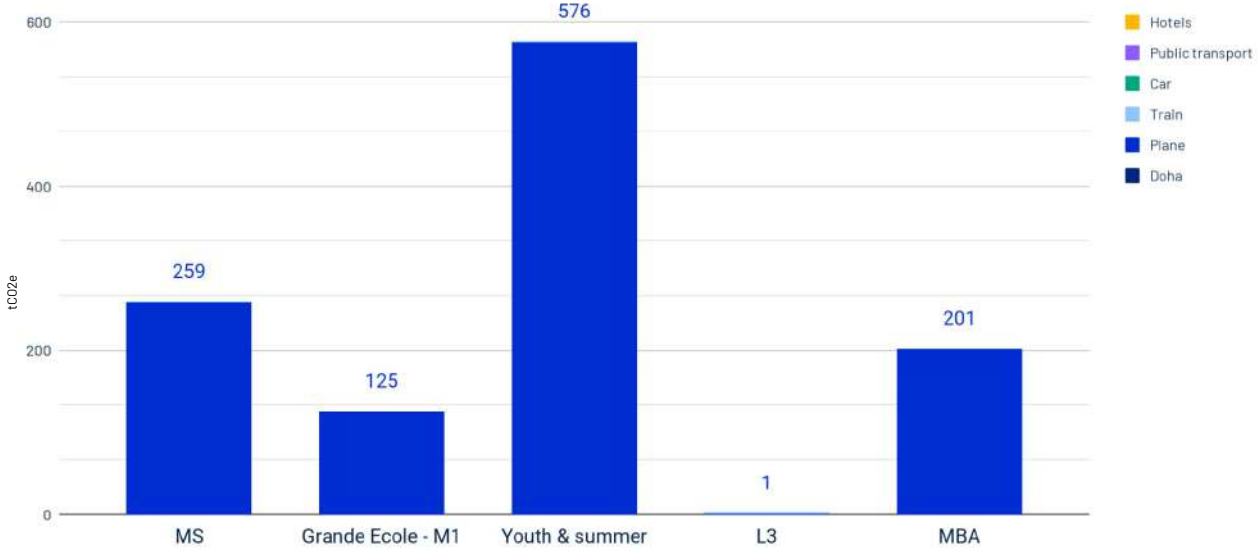
- **The Volume Driver:** The Grande Ecole (PGE) exchange programs, combining both incoming and outgoing cohorts, dominate this footprint simply due to sheer student volume (957 PGE students vs. 144 MBA students).
- **Distance vs. Volume:** While PGE standard exchanges drive the total volume, Double Degree students travel significantly longer average distances (as seen on the right), making them the most carbon-intensive profiles per capita.
- **Inbound vs. Outbound Asymmetry:** Outgoing HEC students cover substantially more mileage, suggesting they favor long-haul destinations while incoming cohorts originate from closer regions.

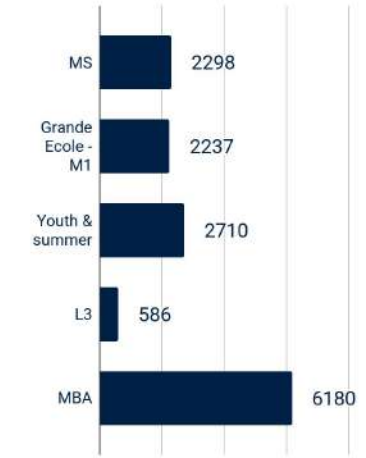
Scope 3: Student Mobility

Recruitment mobility

1,193 tCO₂e in 2025 | **4.1%** of total emissions

Recruitment emissions by program





Average distance travelled per program

Key findings

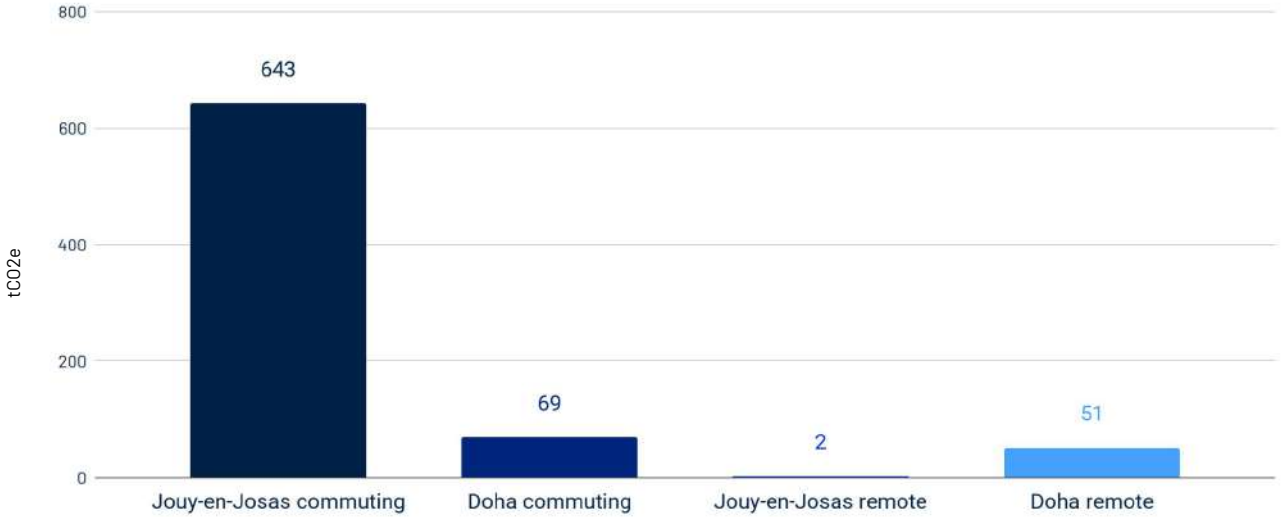
- **Aviation Dominance:** Air travel remains the near-exclusive source of emissions for international arrivals across all major programs.
- **Volume vs. Distance Effect:** Youth & Summer programs drive the highest total emissions (576 tCO₂e) due to their large combined cohort (816 students). Conversely, the MBA footprint is disproportionately high despite a much smaller cohort (272 students), driven by extreme long-haul travel averages (6,180 km per student).
- **The L3 Exception (Local Sourcing):** The L3 Grande École footprint is virtually zero (1 tCO₂e). This reflects highly localized recruitment and low-carbon transit, as students transition to campus following an integration week in Chamonix.

Scope 3: Transportation of Employees

Commuting

765 tCO_2e in 2025 | **2.7%** of total emissions

Commuting & Teleworking emissions



Methodological Note:

- Doha 2025 figures are extrapolated from 2022 data.

- For employees residing outside the Greater Paris area, estimations assume one round trip per week.

Key findings

- **Volume vs. Grid Intensity:** Commuting to the Jouy-en-Josas campus drives the bulk of this footprint (643 tCO_2e) purely due to the high number of locally based staff and faculty.
- **The Teleworking Paradox:** Despite a significantly smaller workforce, Doha generates 25 times more remote-working emissions than Jouy-en-Josas (51 vs. 2 tCO_2e). This stark contrast exposes the extreme carbon intensity of the Qatari electricity grid compared to the low-carbon French grid.
- **Low-Carbon Transit:** The Jouy-en-Josas commuting footprint is heavily mitigated by favorable local travel patterns, as a significant majority of faculty relies on public transportation.

Purchased goods and services

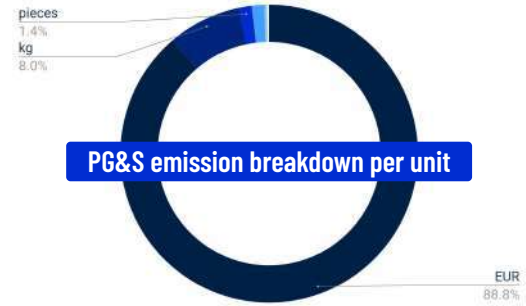
Purchased Goods and Services deep dive

Service Hotspots: The footprint of purchased services is highly fragmented, with the top three categories, Education services (12.5%), Accommodation & Food (11%), and Advertising (9.2%) driving one-third of the total impact.

The Data Quality Challenge: Currently, 88.8% of procurement emissions are estimated using monetary spend (EUR ratios). Because HEC's procurement is heavily service-oriented, the school must engage its top service providers to collect their actual carbon footprints (PCF) or specific operational metrics, moving away from generic financial multipliers.

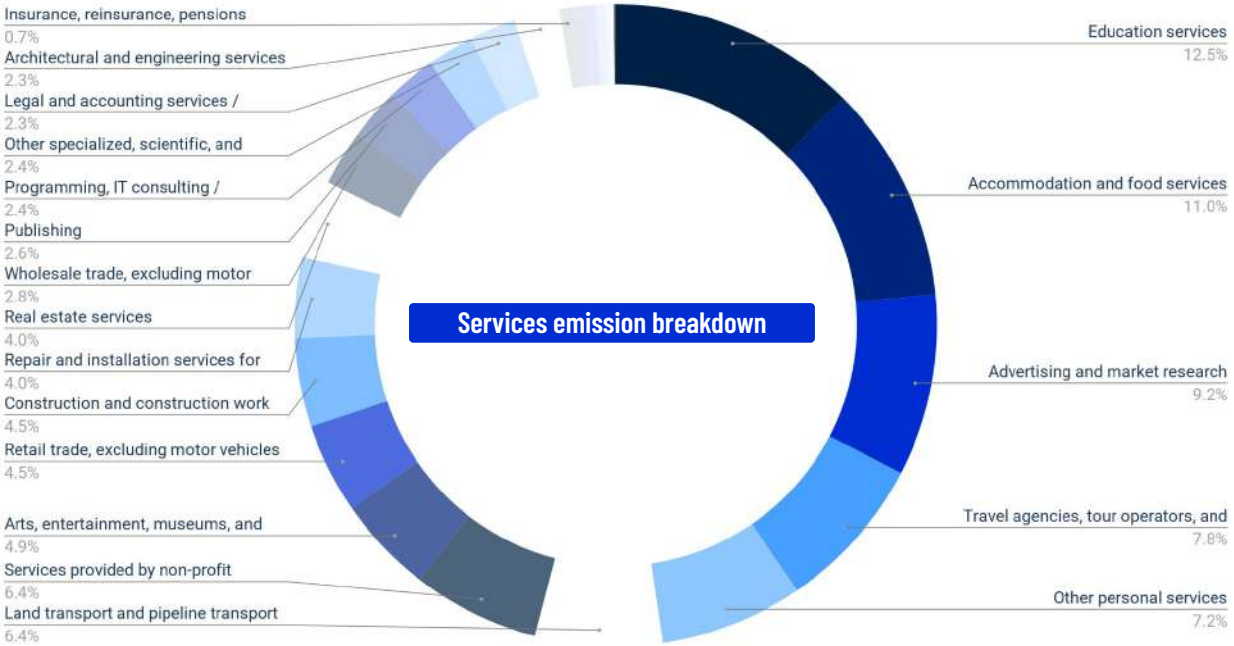
Physical Data Baseline: Physical data currently represents 11.2% of the calculation, primarily covering food services, water consumption, and basic consumables.

Methodological note: 2025 results reflect the latest updates to ADEME's monetary emission factors.



PG&S emission breakdown per unit

5,844 tCO_2e in 2025 | **20.1%** of total emissions



Services emission breakdown

Evolution through the years

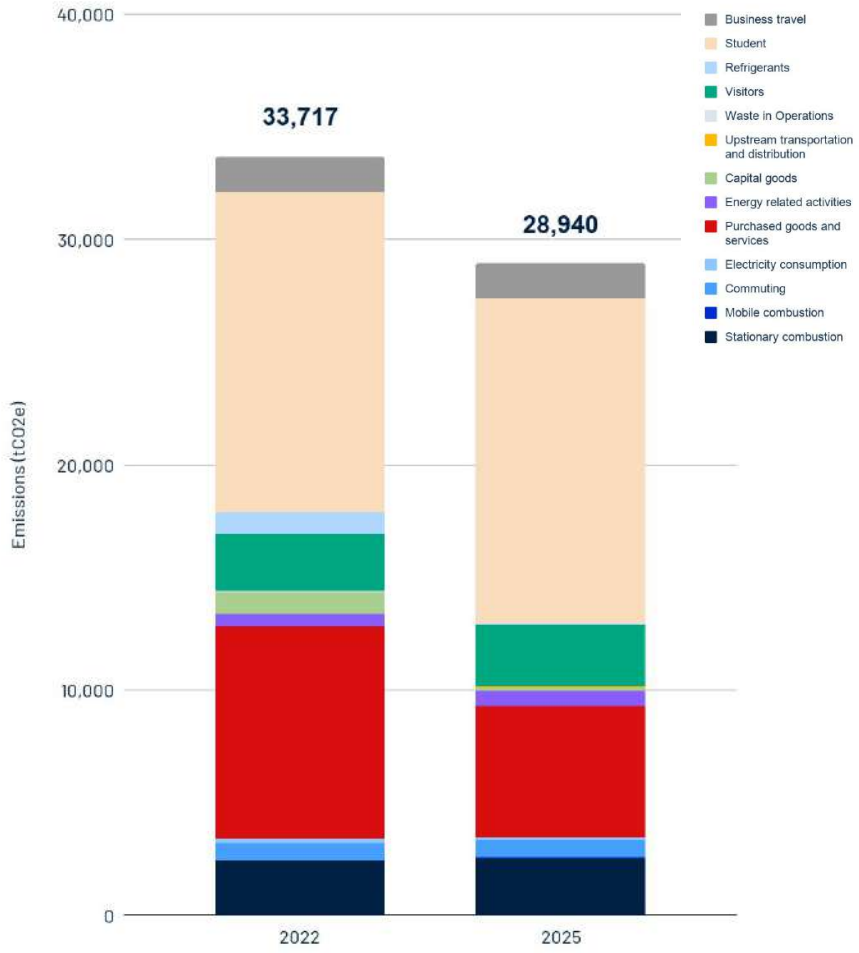
HEC Paris GHG accounting through the years (2022-2025)

A Note on Comparability

- The 2022 and 2025 footprints are not directly comparable. The apparent decrease in total emissions **is largely driven by methodological refinements rather than structural decarbonization.** Expanded boundaries, updated emission factors, and a shift away from broad extrapolations mean we are now measuring more accurately, establishing a robust new baseline.

Key Drivers of Emissions

- **Transportation & Student Travel:** People mobility remains the massive primary contributor (64.4%), with Student Travel alone representing half of the total footprint. The 2025 baseline offers unprecedented fidelity by tracking travel at the program level and explicitly including overnight stays.
- **Visitor Impact:** Now accounting for 10% of the total footprint. This estimate has been drastically refined, moving from broad hypotheses to actual entrance/exit flow data.
- **Purchased Goods & Services (PG&S):** Our second-largest category. Following a strategic study with Capgemini, we successfully transitioned 9% of our tracking from financial estimates to highly accurate physical data.



IV. Conclusion & next steps

Looking ahead

Strategic Priorities for the Coming Years

1. **Sustain Data Excellence:** Continuously refine data collection processes to replace financial estimations with primary physical data, ensuring the absolute accuracy of future carbon tracking.
2. **Drive the Climate Strategy:** Shift from reporting to action. By engaging stakeholders across all campuses and programs, turn carbon metrics into a central KPI for future institutional decisions and reduction initiatives.

Next steps
In your climate journey

What's next in HEC Paris' Climate Journey?

Measure footprint & risks

Done!

Set targets & create reduction roadmap

Reduce footprint

Fund climate action

Done!

Communicate & lead

Generative AI & Carbon Footprint

- **Data Center Demands**

Generative AI requires massive computational power. As highlighted by The Shift Project, the rapid expansion of AI is sharply increasing the electricity consumption and the hardware lifecycle (embodied carbon) of global data centers.

- **The Push for Standards**

Measuring AI's precise footprint remains difficult. Organizations like Mistral AI are actively advocating for global environmental standards to accurately differentiate and measure the impacts of model training versus daily inference.

- **Educational Adoption**

As noted by DRANE Versailles, GenAI is being rapidly integrated into pedagogical practices. Widespread use by both students and faculty creates a new, unmeasured digital footprint within the academic ecosystem.

Source : Mistral AI, Shift Project

A Highly Complex Scope

Quantifying the exact carbon footprint of Generative AI at the campus level is a formidable challenge. The opacity of cloud provider infrastructure and the rapid evolution of digital habits make standard, spend-based data collection ineffective.

Strategic Action Plan

Because this subject requires close, continuous monitoring, HEC Paris cannot rely solely on theoretical data. Campus usage should be assessed to estimate the associated emissions accurately.

Proposed Next Step

Conduct a targeted study by deploying a comprehensive questionnaire to survey learners and professors regarding their daily AI usage.

Thank you

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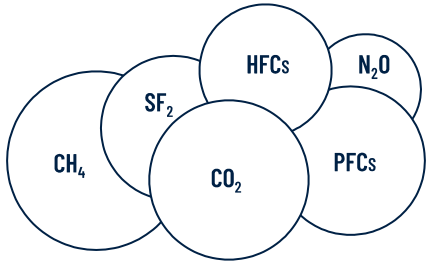
Appendices

Greenhouse gas accounting methodology

Understanding emissions scopes

Our experts calculated HEC Paris' footprint on relevant categories



GREENHOUSE GAS PROTOCOL

The approach followed for emissions estimation is aligned with the GHG Protocol, the **internationally recognized standard** for corporate emissions accounting

Scope 2
Indirect

Purchased electricity, steam, heat & cooling

Scope 3
Indirect

Not concerned — Leased facilities

Employee commuting

Business travel

Purchased good/services

Capital goods

Transport & distribution

Fuel/energy related

Operational waste

Scope 1
Direct

Energy & heat generation at company facilities

Company vehicles

Refrigerants

Scope 3
Indirect

Not concerned — Transport & distribution

Not concerned — Processing of sold products

Not concerned — Use of sold products

Not concerned — End of life for products

Not concerned — Leased facilities

Not concerned — Franchises

Not covered — Investment

Transport of visitors and learners

We use **globally-accepted metrics and proprietary analysis**, backed by 15+ years of research, to calculate your GHG inventory.

Upstream activities | HEC Paris | Downstream activities

An Exhaustive Perimeter to Cover all of HEC's Activities

To capture the true climate impact of a higher education institution, standard GHG Protocol categories have been adapted. This custom perimeter ensures that all core academic activities, such as student mobility, campus life, and international exchanges, are accurately accounted for. **The specific travel and mobility categories resulting from this adaptation are detailed below.**

Reporting period - Calendar year 2025 or scholar year (courses) 2024-2025

Entities / activities taken into account

- Jouy-en-Josas and Qatar campuses
- Château de Jouy-en-Josas (under construction in 2024-2025)
- London and Abidjan offices
- Station F incubator
- HEC foundation

Employee commuting

- Recruitment: emissions linked to employees coming to campus if paid for by the school.
- Emissions from teleworking.

Learners' travel

- On-campus recruitment of students for their studies
- Travel related to exchanges and double degrees
- Travel related to study trips
- Internship-related travel
- Executive travel (intra-programme mobility)

Travel related to events and associations

- Most important events: Graduation, Open Days, Career events and MBAT

Travels Newly added in 2025

- Centre Deep tech (travel & online)
- Exchange : Île de France internal mobility
- Grande Ecole program - commuting to internship location
- MBA events
- Station F : events, visitors and business trips

GHG Category covered Newly added in 2025

- Upstream transportation & distribution

Excluded from the scope

- Current activity of learning associations (only the biggest events organised on campus have been taken into account).

Scope 2 Approaches to Accounting

Scope 2 – comparing market-based and location-based methods

	Market-based method **To reflect HEC Paris' efforts to purchase renewable energy**	**Location-based method** **To reflect location's electricity impact where HEC Paris operates**
Definition	A method to quantify the scope 2 GHG emissions of a reporter based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with contractual instruments, or contractual instruments on their own	A method to quantify scope 2 GHG emissions based on average energy generation emission factors for defined geographic locations, including local, subnational, or national boundaries
How the method allocates emissions	Emission factors derived from the GHG emission rate represented in the contractual instruments that meet scope 2 quality criteria	Emission factors representing average emissions from energy generation occurring within a defined geographic area and a defined time period
Where the method applies	To any operations in markets providing consumer choice of differentiated electricity products or supplier-specific data, in the form of contractual instruments	To all electricity grids
Most useful for showing:	• Individual corporate procurement actions • Opportunities to influence electricity suppliers and supply – risks/opportunities conveyed by contractual relationships, including sometimes legally enforceable claims rules	• GHG intensity of grids where operations occur, regardless of market type • The aggregate GHG performance of energy intensive sectors (for example, comparing electric train transportation with gasoline or diesel vehicle transit) • Risks/opportunities aligned with local grid resources and emissions

Data is the Key to Calculating a Precise Carbon Footprint

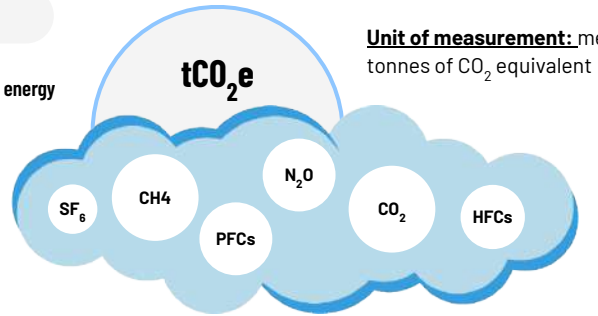
Carbon footprint: The total amount of GHGs emitted by an activity or organisation over time, measured in metric tonnes of carbon dioxide equivalent (tCO_2e).

It is calculated by multiplying:

Activity data X Emission factor

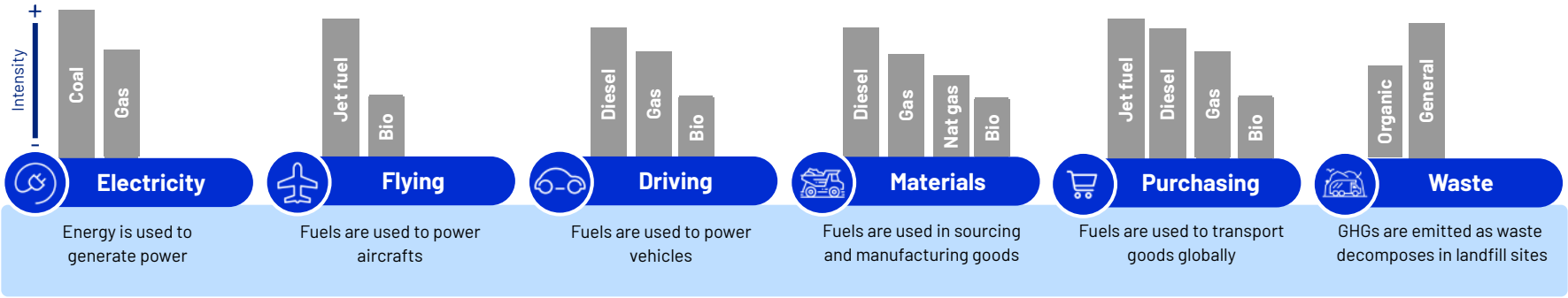
Total energy or fuel consumed | **Amount of emissions produced per unit of energy**

Each activity using energy, materials, etc... emits different amounts of carbon dioxide into the atmosphere per unit used. This is known as its **carbon intensity.**



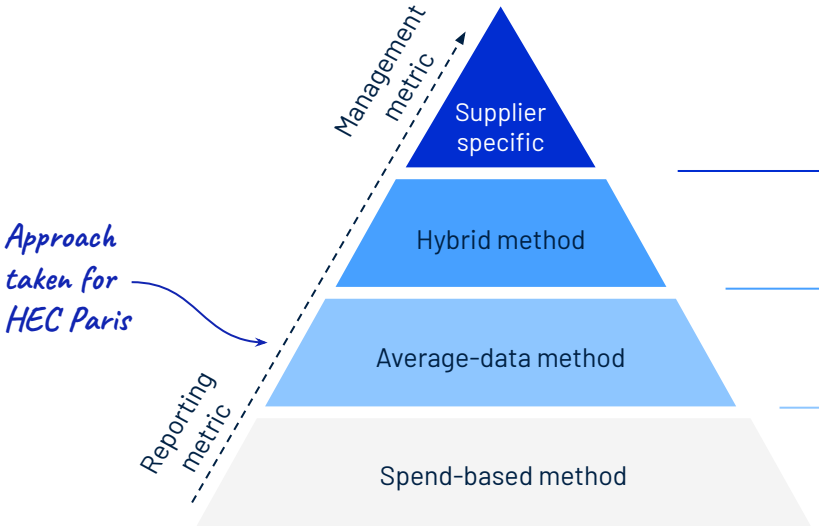
Unit of measurement: metric tonnes of CO_2 equivalent

Each GHG has a varying ability to trap heat in the Earth's atmosphere over a period of time. This is known as its **global warming potential (GWP).**



Data Quality Levels

Accuracy in accounting (especially in regards to scope 3) typically comes from the **granularity** of the emissions data. The more granular your data, the more your emissions become a **management metric** rather than a reporting metric. This is important for material emission scopes.



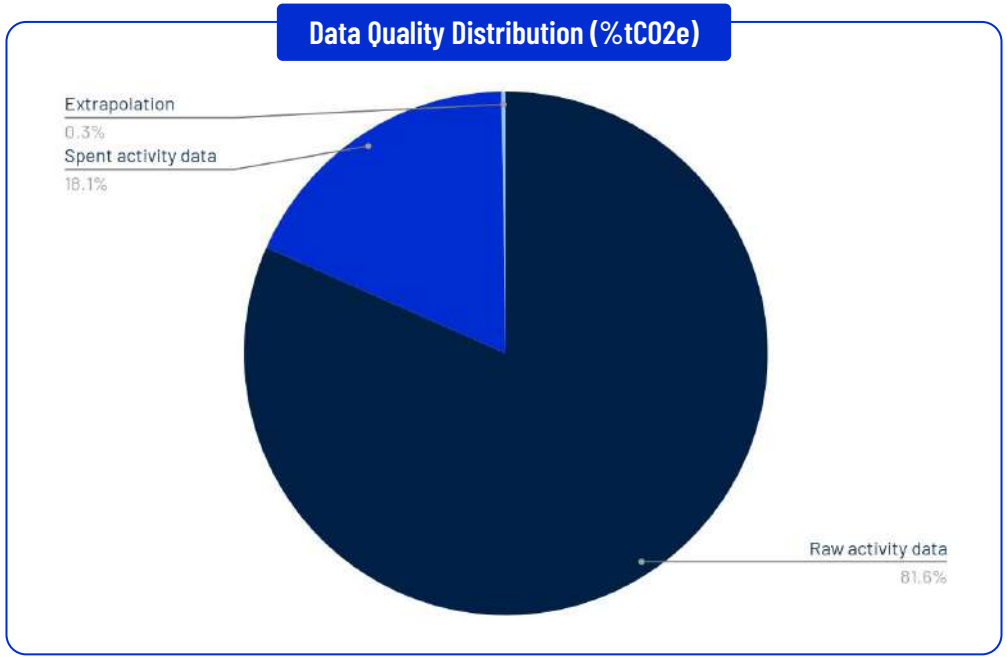
Primary data from specific activities within a company's value chain.

Combination of supplier-specific activity and secondary data to fill the gaps. An 80-20 'rule of thumb' is applied in best practice.

Estimates emissions by collecting **activity data** (e.g. cubic metres [m^3], kilograms [kg], kilometres [km]) and multiplying by the industry average emission factor.

Estimates emissions for goods and services by collecting **spend data** (e.g. emissions per EUR spent on air travel).

Input Data Quality Distribution



Key findings

- HEC Paris has more than 99.7% of tCO2e using **primary & secondary activity data (which differ from estimation and extrapolation)**, leading to more precise results. In 2022, monetary data represented 27% of total carbon footprint impact.
- The only emissions extrapolated are emissions of teachers, visitors and learners' commuting from Campus Doha.

Data Quality

Assumptions and Extrapolations (1/3)

	Good data quality
	Average data quality
	Poor data quality

Emissions category	Collected data	Main assumptions	Quality	Recommendations
Energy consumption	kWh consumed by energy source (gas, oil, electricity) and floor area in m^2.	No assumptions required except for Station F: kWh estimated on the basis of the surface area provided		Last possible improvement is about collecting Station F energy consumptions
Refrigerants	Cooling equipment in Jouy-en-Josas. No refrigeration in Qatar (water devices only).	Assumed a 15% leakage rate per unit, based on the total gas capacity of the cooling equipment.		Keep track of maintenance reports for air conditioning equipment or any other document indicating fluid refills and refrigerant type
Fuel (owned vehicles)	Litres of fuel consumed by fuel type (fuel card data).	None required.		No major improvements needed.
Employee commuting	Number of employees including teachers with: - City of residence - Cover for HR Navigo or bike - Part-time work - Paid holidays	Deduction of modes of transport and estimation of annual distances travelled, accounting for holidays, teleworking, and place of residence. For Doha, 2022 data was used as a proxy since 2025 data was not provided.		Conduct an employee commuting survey to obtain precise information on the modes of transport used and the exact number of commuting days per employee over the year.
Business travel (employees)	- Notilus 2025 database travel agency: mode of transport, class, origin, destination - expense reports: mode of transport, amount invoiced	- For air travel: Distances were extracted from Notilus. Short-haul flights were not detailed per row, assuming 90% of the total distance travelled was long-haul. - For hotels: Number of nights. - For cars and trains: Distance travelled (km).		No major improvement needed.
Visitor transport	Average daily visitor flow recorded during one working day.	Assumptions regarding the number of external visitors (excluding employees and learners), their origin, and mode of transport, extrapolated to the full year.		Attempt to identify or better extrapolate the number, origin, and mode of transport of occasional external visitors to the campus.

Assumptions and Extrapolations (2/3)

	Good data quality
	Average data quality
	Poor data quality

Emissions category	Collected data	Main assumptions	Quality	Recommendations
Events	Number of visitors per programs	Assumptions regarding the region of origin (France, EU) and the mode of transport.		As with the previous category (occasional visitors), record the number, origin, and mode of transport used by visitors for major campus events (e.g., during event registration).
Commuting to and from campus (learners)	Number of learners accommodated ON and OFF campus	Assumptions regarding the mode of transport (public transport) and distance travelled (20 km) for learners accommodated OFF campus. For learners on the Doha campus: 20 km assumed for commuting.		As with employees, conduct a home-campus commuting survey on a sample of learners to determine: distance travelled over the year, mode of transport used, etc.
Commuting (Station F)	Number of start-up entrepreneurs	Assumptions regarding distance travelled and mode of transport.		As with employees, conduct a home-campus survey for start-up entrepreneurs to determine: distance travelled over the year, mode of transport used, etc.
Recruitment-related travel	City of departure and destination. If applicable, the number of nights spent in the country of arrival.	If modes of transport were not provided, the assignment was based on the country of departure and destination.		When registering future MS learners, collect the city of residence and the mode of transport used.
Travel linked to exchange programs and DDs	City of departure and city of arrival, including incoming students.	If modes of transport were not provided, the assignment was based on the country of departure and destination.		Conduct a survey to determine the mode of transport used by learners.
Travel related to courses	City of departure and destination. If applicable, the number of nights spent in the country of arrival.	If modes of transport were not provided, the assignment was based on the country of departure and destination.		Conduct a survey to determine the mode of transport used by learners.

Assumptions and Extrapolations (3/3)

	Good data quality
	Average data quality
	Poor data quality

Emissions category	Collected data	Main assumptions	Quality	Recommendations
Travel related to study trips	City of departure and destination If applicable, the number of nights spent in the country of arrival	None required.		No major improvements needed.
Intra-programme mobility for Executives	- Number of learners, number of modules and module location (if face-to-face), place of residence - Programmes concerned: Exec Open, Exec Custom, EMBA, TRIUM	If modes of transport were not provided, the assignment was based on the country of departure and destination.		No major improvements needed.
Purchased goods and services	- The study carried out by HEC Paris on top suppliers resulted in usable physical data. - Amounts spent in 2025 for each major purchasing category (IT, catering, services, etc.)	- For all food products, a specific physical emission factor has been used. - For manufactured items, a category physical emission factor has been used if not available directly. - Monetary data: use of monetary ratios by category.		- For product purchases, keep increasing the share of physical data collected to enable a more accurate calculation of emissions (e.g., number of meat meals, etc.). - For services, encourage service providers to provide the results of their carbon footprint (PCF).
Capital goods	- For buildings: surface area, year of construction, and type of building. - For vehicles, furniture, and machinery: number of items purchased in 2025, depreciation for each major category of asset (furniture, equipment, etc.), and items still being depreciated in 2025.	- Buildings : Assumption of the embodied carbon of buildings based on floor area (m^2). - Other: application of monetary ratios by category if physical data was not available.		- For buildings, carry out LCAs at the time of construction to determine the precise carbon impact. - For the rest, keep collecting physical data (e.g. number of machines and type, number of pieces of furniture and material, etc.).
Waste	2025 waste report: quantity of waste by type.	Assumptions regarding waste density when only volume was provided.		Record the specific treatment method for different types of waste (e.g., recycling, incineration, etc.).

Emission factors references

Emission factors references (1/2)

Scope	Category	References	IPCC assessment report
Scope 1 Direct emissions from energy and heat generation at company-owned facilities	Mobile combustion	- Base Empreinte	AR6
	Fugitive emissions	- AR6	AR6
Scope 2 (market-based) indirect emissions from utility-purchased electricity, steam, heat or cooling	Grid	- IEA 2025	AR6
Scope 3 Indirect emissions from peripheral activities related to the company	Purchased goods and services	- **Services:** ADEME (monetary factors) - **Other**: Base Empreinte	AR6
	Capital goods	- **IT equipment:** Base Empreinte	AR6

Emission factors references (2/2)

Scope	Category	References	IPCC assessment report
Scope 3 Indirect emissions from peripheral activities related to the company	Fuel and energy related activities (market-based)	- **Fuels:** Base Empreinte - **Electricity**: IEA 2025	AR6
	Waste generated in operations End of Life of Sold Products	- Base Empreinte	AR6
	Business travel	- **Air travel**: UK BEIS 2025 - **Ground travel**: Base Empreinte	AR6
	Employee commuting	- **Commuting**: Base Empreinte - **Work from home**: South Pole derived 2025 based on Anthesis 2021, IEA EEEI 2023 data, BEIS 2024, and South Pole electricity and heat emission factors 2024	AR6