

Carbon footprint report 8/2024–7/2025

1. Introduction

According to its strategy, The Student Union of The University of Vaasa (VYY) promotes the realization of principles of sustainable development in the university community, and the carbon footprint is calculated to realize environmental sustainability. The goal of the calculation is to recognize potential emission reduction targets and to guide the development of VYY's sustainability work.

The preparation for the calculation of VYY's carbon footprint began in 2021 and in 2022 the carbon footprint was calculated with *Hiilifiksi järjestö* calculator ("Carbon smart organization"). VYY's organization learned significantly from the calculation in 2021 and 2022, but precision and timeliness was needed. In 2023 VYY shifted to using CarbonLink's automated carbon footprint calculator. The reporting period was changed from January–December to August–July according to the academic year of higher education institutions.

VYY represents all of the approximately 5,000 students of the University of Vaasa and supervises their interests, both locally in the university administration and in the city of Vaasa, and nationally. In addition VYY offers member services, like events, renting a sauna facility, and supporting services to the organizations in its domain.

2. Calculation of the carbon footprint

CarbonLink counts carbon footprint in carbon dioxide equivalents (CO₂e). The calculator is integrated with Netvisor, which is the financial management system VYY uses. The calculator uses financial data to define and categorize the emissions, because financial data gives a comprehensive and trustworthy description of the operations of the organization and no carbon leakage occurs. Based on the results, the emissions are categorized and sorted into scopes according to the greenhouse gas (GHG) protocol. The GHG Protocol is a standard published in 1998 by the World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI), with which companies can define the GHG emissions of their operations. Scope 1 covers all the emissions from the organization's own operations or those it directly controls, scope 2 covers the indirect emissions from the energy that the

organization purchases, and scope 3 covers the indirect emissions resulting from the organization's operations.

VYY's total emissions in carbon dioxide equivalents (CO₂e) in the academic year 8/2024–7/2025 were **74 437 kg**, and the most significant emissions and 99% of the total emissions occurred in scope 3 as can be seen in Image 1. In 2023–2024 the total emissions were **54 141 kg**. In other words, VYY's emissions have risen **20 296 kg**.

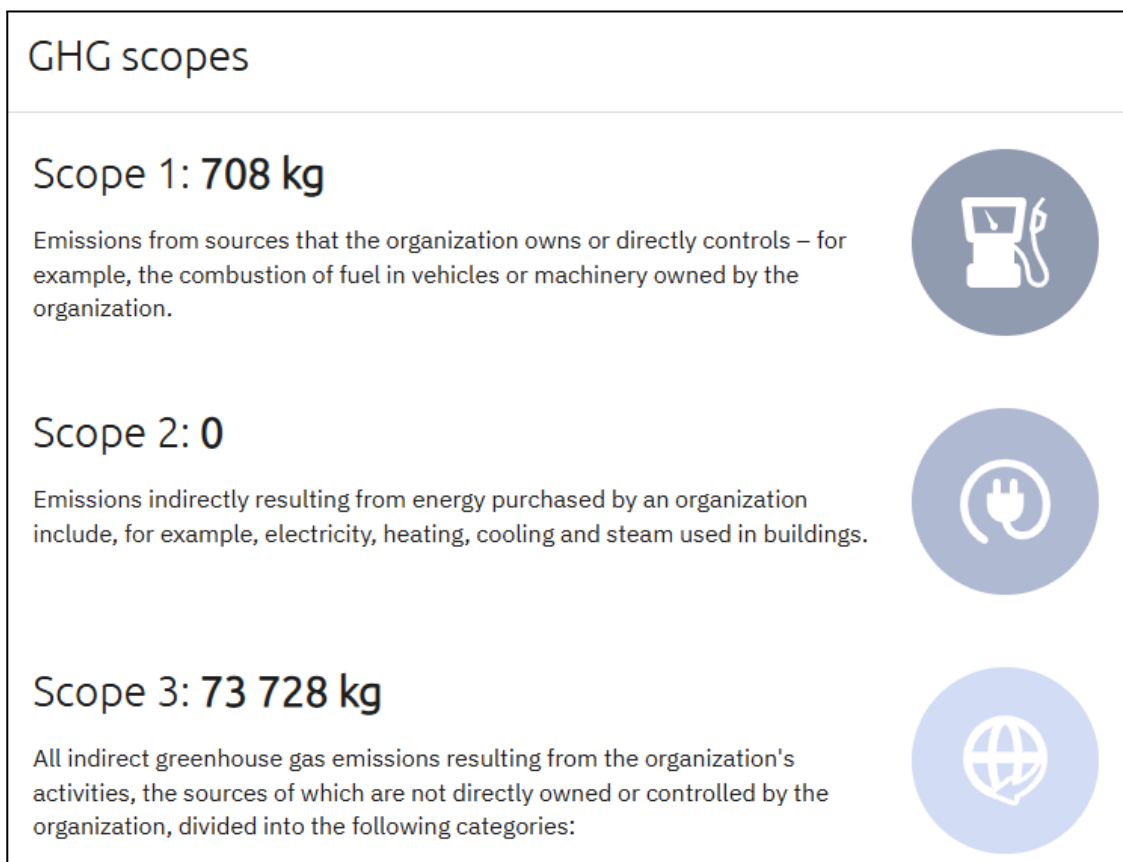


Image 1. Key figures.

The emissions in scope 1 occurred from the purchase of fuel for rental cars, and there were no emissions in scope 2 because the used energy is included in the rent of the office space. The increase in the emissions occurred solely in scope 3.

As can be seen from Image 2, 91% of the emissions in scope 3 were generated from purchased products and services. The largest singular yet continuous emissions are

generated by the rent for VYY's premises. During the review period on-going were also VYY's Leipätehdas sauna facility renovation and the implementation of a case management system, which are one-time projects. Together these projects account for approximately **17 000 kg** of emissions, which means that VYY's emissions have still increased by **3 000 kg**.

Represented in Images 2 and 3 are VYY's emissions according to the scopes and scope 3 subsopes in the current and previous period. Emissions in subscope 9 mostly consist of the deliveries of purchased goods, such as overall patches. Due to the update of the chart of accounts, deliveries are marked to a separate account, which is why it seems like the figure has grown rapidly. Emissions in subscope 5 occur from water consumption in the apartment owned and rented by VYY. Emissions in subscope 6 are mostly generated from the board and staff's train journeys to seminars and meetings, but also from e.g. transportation of exchange students. The most significant change has happened in the purchased goods and services, which also include the aforementioned renovation and case management system projects. The figures in parentheses represent the number of purchase transactions, which clearly correlate with the increase in emissions. The number of transactions has grown with 451 compared to the previous calculation period.

<u>GHG scope ↑</u>	CO₂e kg
∨ Scope 1 (3)	708
^ Scope 3	73 728
∨ 1: Purchased goods and services (2191)	68 009
∨ 5: Waste generated in operations (12)	2
∨ 6: Business travel (143)	4 420
∨ 8: Upstream leased assets (3)	1
∨ 9: Downstream transportation and distribution (20)	1 297

Image 2. Subscopes of scope 3.

GHG scope ↑	CO₂e kg
✓ Scope 1 (4)	879
✓ Scope 2 (4)	303
^ Scope 3	52 960
✓ 1: Purchased goods and services (1848)	48 768
✓ 5: Waste generated in operations (14)	2 557
✓ 6: Business travel (41)	1 488
✓ 9: Downstream transportation and distribution (10)	148

Image 3. Subscopes of scope 3 in the period 8/2023–7/2024.

In Image 4 represented are VYY's total emissions monthly on the basis of the largest categories. All categories are reviewed in Image 5. The exceptionally large emissions in the infrastructure category in August–October are explained by the renovation of the Leipätehdas sauna facility and payment of the office space rent for half a year. Other categories are explained by the tutor project and the arrival of new students. The greatest emissions in edibles and services categories in February and April are caused by the Anniversary Ball and Boom City Appro, which are events organized by VYY. In December there is no clear trend, but at the end of the fiscal year there tends to be more invoices than at the end of other months.

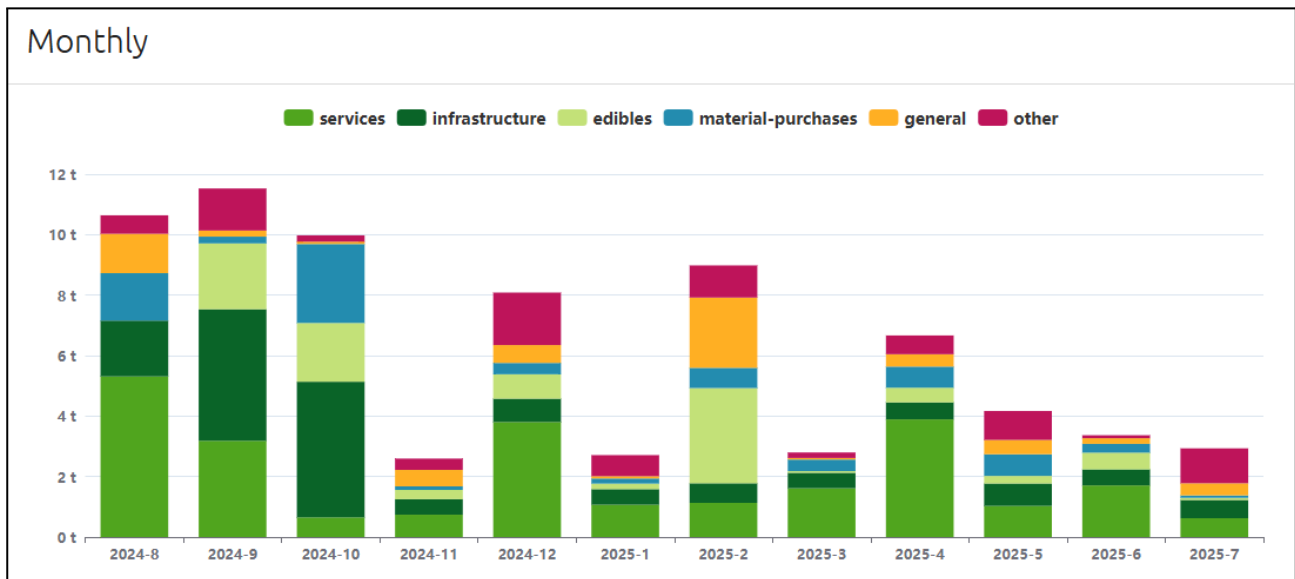


Image 4. VYY's emissions monthly.

Represented in Image 5 are VYY's emissions in categories starting from the largest category. In the previous period of 8/2023–7/2024 VYY's largest sources of emissions in order were waste, infrastructure, and edibles. Compared to the previous period, services are still the highest source of emissions, but since VYY's waste management today is included in the office space rent, waste is not visible as a separate category. Infrastructure has moved up to the second place because it includes the Leipätehdas renovation expenses. In all categories that have remained in the listing, emissions have increased as a general rule. VYY's number of members has steadily increased, and thus also the expenses and demand for activities increase.

Category	CO ₂ e kg ↓
✓ services	24 748
✓ infrastructure	16 085
✓ edibles	9 975
✓ material-purchases	7 901
✓ general	6 641
✓ electronical-devices	2 579
✓ travel	2 511
✓ lodging	1 908
✓ other-transportation	1 297
✓ fuels	708
✓ education	79
✓ waste	2
✓ parking	1
✓ leasing	1
✓ info	0

Image 5. VYY's emissions by category.

3. Conclusions

Notable in the calculation is that VYY's chart of accounts was renewed in 2025, due to which also cost objects were renewed. The cost objects have not been entirely updated in CarbonLink, so observing them becomes relevant in the next reporting period. VYY would also benefit from observing the emissions according to the chart of accounts, but currently this is not possible. Presumably also a part of the emissions is categorized differently than before. In addition, CarbonLink's automatic classification has errors. For example, credit card invoices' lines are not as easily read by the system than the invoices coming from the original source. For example, wine packages from

the Anniversary Ball have been categorized as general, so the system doesn't recognize them as edibles.

What makes CarbonLink's results challenging is that the categorization is automatic, and it can only be changed through significant manual effort. For example supermarkets' invoices are assigned to purchases, even though the items bought are edibles in general and should be in that category. Another example is the mocktail training for the Board and staff's recreational day, which is categorized in education rather than other services.

VYY's number of members, excluding the doctoral students, in 2024 was 4,462 and in 2025 the number was 5,162. Emissions in 2024 per member were **12.1 CO₂e kg**, and in 2025 **14.4 CO₂e kg**. Without the Leipätehdas renovation and the implementation of the case management system, the figure of 2025 is **11.1 CO₂e kg**, which implies that the emissions from day-to-day activities would be moderately declining. However, due to the growing number of members, the services are also expanding. For example in autumn 2025 VYY leased a van for the members' use.

VYY's total carbon footprint and the scopes do still need monitoring and analysis to ground emissions reduction actions. Even if one-time projects are not counted in, VYY's total carbon footprint has increased by **3 000 CO₂e kg**. Apart from increase in the number of members, no other clear or specific contributing factors have been identified and therefore monitoring must be continued to identify trends in emissions.

In the future, the total emissions will likely not decrease without emission reduction actions, because VYY's number of members is predicted to rise in the coming years. A growing number of members means growing services, so VYY is balancing between its core purpose and reducing its carbon footprint.