

Climate Audit

PAF

Financial year 2022

In collaboration with

ATMOZ

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Method

GHG Protocol

Atmoz calculations and reporting are carried out in accordance with the guidelines of the GHG (Greenhouse Gas) Protocol. The GHG Protocol is based on the following principles:

- **Relevance:** Reporting should reflect the company's or organization's emissions in an adequate manner so that it can support decision making for users both internally and externally.
- **Completeness:** Reporting should cover all emissions within the specified system boundary. Any exceptions should be described and explained.
- **Consistency:** The method of calculation should be consistent so that comparisons can be made over time. Changes in the data, system boundaries, methods or similar, should be documented.
- **Transparency:** All activity data, methods, sources and assumptions should be documented.
- **Accuracy:** The calculated emissions should be as close as possible to the actual emissions.

Scope

The GHG protocol divides greenhouse gas emissions into three so-called scopes, namely:

Scope 1, which includes direct emissions. These are emissions that the company has direct control over, such as emissions from company vehicles.

Scope 2, which includes indirect emissions from purchased energy, such as electricity and district heating.

Scope 3, which includes other indirect emissions. This includes emissions from all other activities, such as production, logistics, air travel, etc.

In cases where activities within scope 1 and 2 have a climate impact that arises in the life cycle but are not directly dependent on the activity, the climate impact falls within scope 3. Examples of such cases are production and transport of the fuels burned in company cars or production and maintenance of power plants that supply energy.

Consolidation Approach

The GHG protocol allows two different consolidation approaches; equity share and control approach. The chosen method affects, to a certain extent, the scope in which the climate impact is reported, but above all it has significance for ownership in other companies and what must be included in the calculation as a result. Under the control approach, a company accounts for 100 percent of the GHG emissions from operations over which it has control. When using the control approach to consolidate GHG emissions, companies shall choose between either the operational control or financial control approach. The consolidation



approach used for PAF's climate reporting is operational control, which means that the inclusion of emissions attributed to the reporting company is based on its operative control of the respective business activities.

Method Scope 2

According to the GHG protocol, greenhouse gas emissions from electricity must be reported in two ways in scope 2.

Location-based method, where greenhouse gas emissions are calculated based on an average value for the grid's electricity in the region / country.

Market-based method, where the climate impact is calculated based on electricity from a specific electricity agreement with guarantees of origin that has been actively purchased by the company. If the company doesn't have an agreement for a specific origin of electricity, the residual mix is used in the calculation. The residual mix is the electricity that is left when the sold guarantees of origin are removed. The Nordic residual mix is used for the Nordic countries, because of the common energy market. For other countries, the residual mix for the specific country is used.

Base Year

For the business's long-term climate strategy, a base year can be set, against which the current accounting year is compared. PAF has not decided on a fixed base year, the results are compared with the previous year.

According to the GHG protocol, the base year needs to be recounted if certain types of changes are made within the scopes or method of calculation and the change is regarded as significant. As default, Atmoz has a threshold for recalculating the base year if the result shows a change equal to or greater than 5 % of the total emissions.

Recounting takes place if:

- Significant change in the organization's structure (e.g. addition of companies, in/out source changes)
- Significant change in calculation methodology (e.g. improved emission factors, improved activity data)
- Expansion of system boundaries that provide significant change
- Detection of significant errors or minor errors that together are significant

Recalculation of the base year does not occur due to organic growth.

Activity Data and Emission Factors

The activity data for 2022 used in the climate calculation are stated by PAF. Atmoz has in turn utilised emission factors in the climate calculation. In some calculations, the reported data has been complemented with the necessary assumptions and average values (see Assumptions and Updates).



All calculation factors used are of the unit CO₂ equivalents (CO₂e), which is a weighting of emitted greenhouse gases corresponding to the climate effect (Global Warming Potential) of carbon dioxide over a 100-year perspective and includes the seven greenhouse gases covered by the Kyoto Protocol: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃¹. GWP values have been applied, where possible, according to the IPCC Fifth Assessment Report, 2014 (AR5). Refrigerants may in some cases contain substances that have a high climate impact but are not part of the Kyoto Protocol, in which case these are reported separately in Appendix 2.

According to the GHG protocol, the seven greenhouse gases above must be calculated and reported both separately and together as CO₂e. At present, Atmoz only reports the gases together, as the available emission factors from authorities and institutes etc. only are reported as CO₂e.

Atmoz counts all life-cycle emissions from electricity in category 3 Fuel- and energy-related activities that are not included in scope 1 or 2.

Calculation factors used for air travel take emissions of particles, NO_x and water vapor that occur at high altitude, the so-called "high altitude effect", into account. The calculation factor applied by Atmoz to take high-altitude effects during air travel into account is 1.9.

Assumptions and Updates

The method and source for the location-based electricity emission factor has changed since last year. This makes the climate impact higher for 2022 in comparison with 2021. 2021 has not been recalculated due to the change effecting the results less than 2% of the total result.

The energy consumption for some offices has been estimated based on the office area and the average energy consumption in the other offices. Electricity consumption has been estimated for the offices in Katajanokka Skatudden, Oslo, Riga and Malta. District heating has been estimated for offices in Helsinki, Oslo and Riga.

The heating and cooling in the office in Madrid is assumed to be accomplished by electricity and included in the reported electricity consumption. Renewable electricity in Estonia and Spain is assumed to be wind power.

PAF includes the climate impact from use of their slot machines at ferries and in Åland during the reporting year. These emissions were previously reported under a category named Product Usage, these can now be found under Category 13 - Downstream Leased Assets. Recategorization is done due to the GHG-protocol category Use of sold products includes the climate impact during the whole lifetime of the sold product while the downstream leased assets category includes the climate impact during the reporting year.

The climate impact from use of slot machines in Åland for 2021 has been changed from using market-based electricity to using location-based electricity. Adjustment has also been made to only include the direct emissions linked to the electricity production and to not include the upstream climate impact.

¹ CO₂: Carbon dioxide, CH₄: Methan, N₂O: Nitrous oxide, HFC: Fluorinated hydrocarbons, PFC: Perfluorocarbons, SF₆: Sulfur hexafluoride and NF₃: Nitrogen trifluoride.



System Boundaries

PAF's system boundaries are reported below.

Table 1. System boundaries for the climate audit.

	Extent	Comment
Scope 1		
Refrigerants	Included	Only relevant for 2016
Vehicles	Included	
Stationary combustion	Not relevant	
Scope 2		
Electricity	Included	
Heating	Included	Including district heating
Cooling	Included	Including district cooling
Scope 3		
<i>Upstream Categories</i>		
1: Purchased goods	Partly included	Computers and smartphones
1: Purchased services	Partly included	Hosting
2: Capital goods	Excluded	
3: Fuel- and energy-related activities (not included in scope 1 or 2)	Included	
4: Upstream transportation and distribution	Excluded	
5: Waste generated in operations	Excluded	
6: Business travel	Included	
7: Employee commuting	Excluded	
8: Upstream leased assets	Not relevant	
<i>Downstream Categories</i>		
9: Downstream transportation and distribution	Excluded	
10: Processing of sold products	Not relevant	
11: Use of sold products	Not relevant	
12: End-of-life treatment of sold products	Not relevant	
13: Downstream leased assets	Included	Slot machines
14: Franchisers	Not relevant	
15: Investments	Not relevant	

Direct biogenic carbon dioxide emissions that occur when burning biomass/biofuels are outside PAF's system boundaries and are not included in the climate report, in accordance with the GHG protocol. These emissions are not included because biomass/biofuels absorb as much carbon dioxide during their growth as when they are burned. For transparency, direct biogenic carbon dioxide emissions are reported separately in Appendix 1 - Biogenic Carbon Dioxide Emissions.



Climate Impact

PAF's operations during 2022 resulted in greenhouse gas emissions of 1 867,3 tonnes CO₂e, presented in Figure 1 and Table 2 (market-based method, see Table 3 for location-based results). The biggest climate impact is within Scope 3. The three largest categories are downstream leased assets, accounting for 81,7% followed by business travel accounting for 9,7% and heating corresponding to 2,8% of the climate impact. The result since last year has increased with 23,2%. Since 2021 PAF has extended the scope of the calculation and includes also downstream leased assets and parts of purchased goods and services. Therefore, the comparison between previous years and 2021 and forward is not representative.

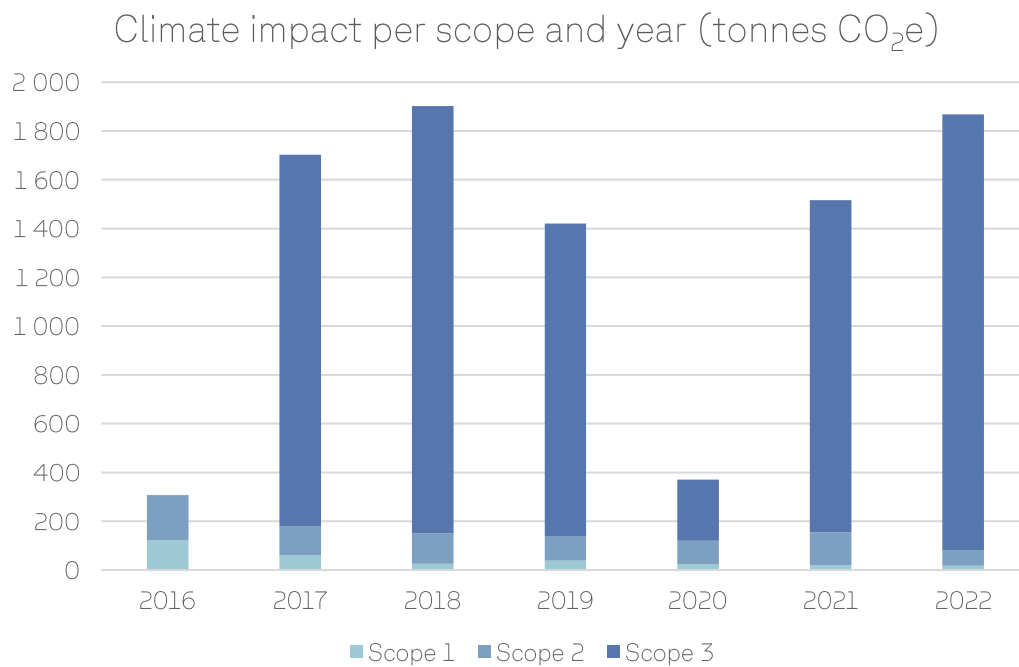


Figure 1. Climate impact (tonnes CO₂e) per scope with market-based method.



Table 2. Total climate impact (tonnes CO₂e) during 2016 – 2022 with market-based method. Change since previous year is shown both in tonnes CO₂e and %.

Climate impact (tonnes CO ₂ e)	2016	2017	2018	2019	2020	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Scope 1	122,6	61,1	25,1	38,4	23,7	19,5	17,9	1,0%	- 1,6	-8,2%
Refrigerants	40,7									
Vehicles	81,9	61,1	25,1	38,4	23,7	19,5	17,9	1,0%	- 1,6	-8,2%
Scope 2	183,5	116,5	124,9	98,3	96,4	134,9	64,3	3,4%	- 70,6	-52,3%
Cooling	18,5	3,6	4,6	5,0	4,2	0,0			0,0	
Electric vehicles							0,0	0,0%	0,0	
Electricity	73,3	16,8	35,0	9,1	17,2	34,1	11,6	0,6%	- 22,4	-65,9%
Heating	91,7	96,1	85,3	84,2	75,0	100,9	52,7	2,8%	- 48,2	-47,8%
Scope 3	0,9	1 524,5	1 752,1	1 283,1	250,3	1 361,1	1 785,1	95,6%	423,9	31,1%
Business travel		1 524,4	1 751,2	1 246,9	234,5	62,4	180,2	9,6%	117,8	188,9%
Downstream leased assets						1 185,3	1 511,7	81,0%	326,5	27,5%
Fuel- and energy-related activities	0,9	0,0	1,0	36,2	15,8	10,6	14,0	0,8%	3,4	31,8%
Purchased goods						35,0	27,1	1,5%	- 7,9	-22,5%
Purchased services						67,9	52,1	2,8%	- 15,8	-23,3%
Total	307,1	1 702,1	1 902,1	1 419,9	370,4	1 515,5	1 867,3	100,0%	351,7	23,2%

Table 3 shows the results with the location-based method.

Table 3. Total climate impact (tonnes CO₂e) with market-based and location-based method during the last two years.

Climate impact	Market based	Location based	Unit
Total 2022	1 867,3	1 849,7	tonnes CO ₂ e
Total 2021	1 515,5	1 406,1	tonnes CO ₂ e
Change 2021-2022	351,8	443,6	tonnes CO ₂ e
Change % 2021-2022	23,2%	31,5%	% tonnes CO ₂ e

According to the Paris Agreement, global warming must not exceed 1.5 degrees °C. To be in line with the Paris Agreement, according to the Carbon Law², companies need to halve their emissions every decade from 2020 onwards, preferably faster. This means an annual reduction rate of at least 7% of total emissions (scope 1,2 and all of scope 3).

² Rockström et al. *A roadmap to decarbonization* 2017



To know what this corresponds to in tonnes, PAF needs to expand its system boundaries, which Atmoz recommends. Based on existing data, 7% would mean a reduction of 130,7 tonnes by next year, which Atmoz recommends striving for as a minimum.

KPIs

Table 4. KPIs for the total climate impact for 2016 – 2022 with market-based method. Change since previous year is shown both in tonnes CO₂e and %.

KPI	2016	2017	2018	2019	2020	2021	2022	Change 2021 - 2022	Change % 2021 - 2022	Unit
Climate impact per employee	0,81	4,48	2,44	1,97	0,49	4,54	6,55	2,01	30,7%	t CO ₂ e / FTE
Climate impact per revenue	2,70	14,67	8,57	5,87	1,53	12,42	13,83	1,41	10,2%	t CO ₂ e / MEUR



Scope 1

The climate impact within Scope 1 accounts for 17,9 tonnes CO₂e corresponding to 1,0% of the calculated climate impact, see Figure 2 and Table 5. PAF's scope 1 consists of emissions from refrigerants and combustion of fuel in vehicles. Since last year the climate impact has decreased with 8,2%.

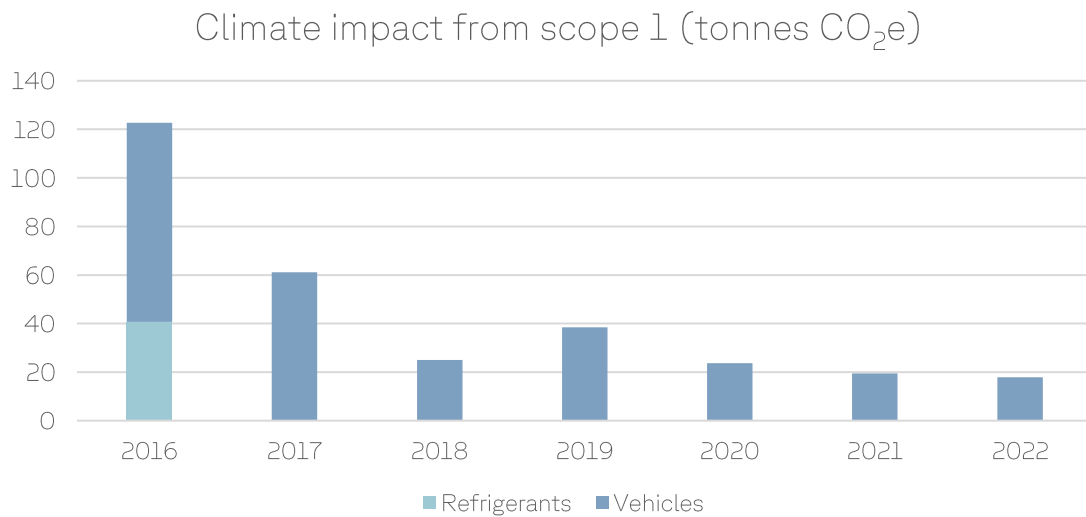


Figure 2. Climate impact (tonnes CO₂e) within scope 1.

Table 5. Climate impact (tonnes CO₂e) within scope 1.

Climate impact (tonnes CO ₂ e)	2016	2017	2018	2019	2020	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Refrigerants	40,7									
R410a	40,7									
Vehicles	81,9	61,1	25,1	38,4	23,7	19,5	17,9	100,0%	- 1,6	-8,2%
Car	16,4	34,1	2,8	2,4	1,4	1,9			- 1,9	-100,0%
Transportation	21,6									
Truck	8,0	5,8	4,7	18,6	4,3	1,3	1,0	5,8%	- 0,3	-20,4%
Van	35,9	21,2	17,6	17,4	18,0	16,3	16,8	94,2%	0,5	3,2%
Total	122,6	61,1	25,1	38,4	23,7	19,5	17,9	100,0%	- 1,6	-8,2%

To reduce scope 1, the business is recommended to reduce the amount of fossil fuels and review whether less climate-damaging fuels can be use. Changing to electric vehicles is also reducing the climate impact.



Scope 2

PAF's climate impact from scope 2 comes from electricity use, cooling and heating in offices. The climate impact from scope 2 with the market-based method 2022 accounts for 64,3 tonnes CO₂e with the market-based method, corresponding to 3,4% of PAF's measured climate impact. See Figure 3 below for the climate impact in scope 2. Since last year the climate impact has decreased with 52,3%.

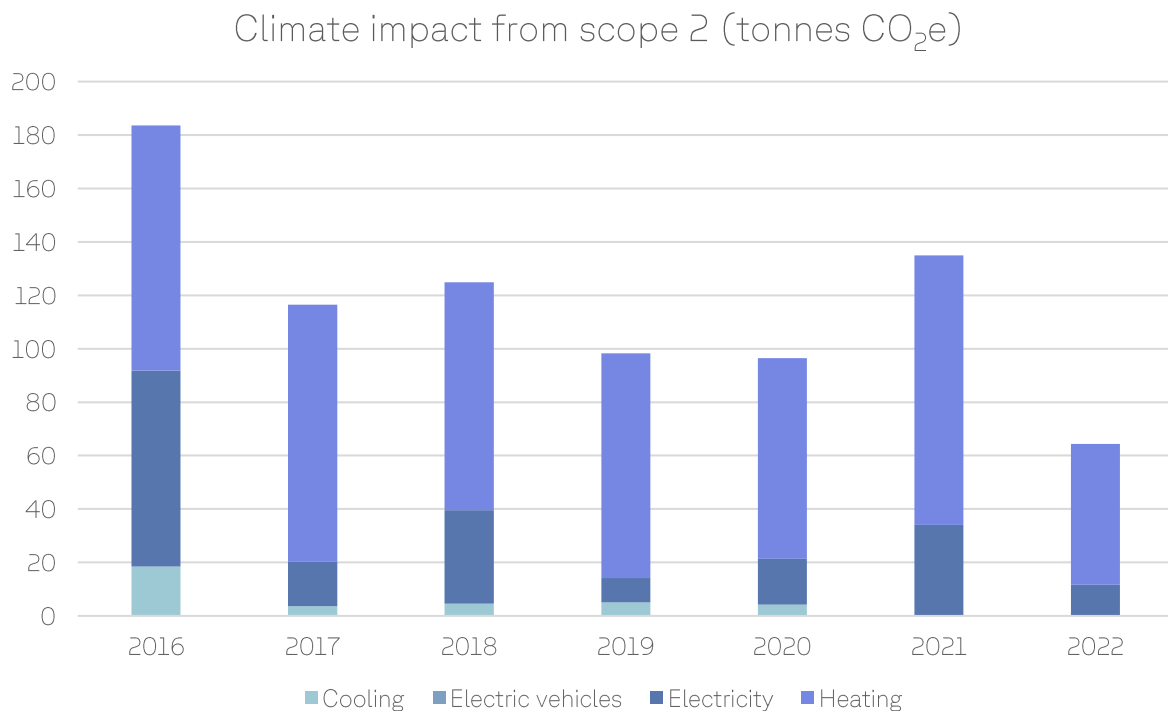


Figure 3. Climate impact from scope 2 with market-based method.

Results for market-based electricity are presented in Table 6 and location-based electricity in Table 7. The market-based method takes renewable energy certificates into account. In the location-based method the country's average climate impact for electricity is used.



Table 6. Climate impact (tonnes CO₂e) for respective energy type 2016-2022 calculated with market-based method. Change since previous year is shown in both tonnes CO₂e and %.

Climate impact (tonnes CO ₂ e)	2016	2017	2018	2019	2020	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Cooling	18,5	3,6	4,6	5,0	4,2	0,0	0,0	0,0%	0,0	
Electric vehicles							0,0	0,1%	0,0	
Electricity	73,3	16,8	35,0	9,1	17,2	34,1	11,6	18,1%	- 22,4	-65,9%
Hydropower			0,0							
Renewable	10,8	7,1	29,1	0,0	0,0	0,0	0,2	0,2%	0,2	
Solar power							0,0	0,0%	0,0	
Unspecified	62,5	9,8	5,9	9,1	17,2	34,1	11,5	17,8%	- 22,6	-66,4%
Wind power				0,0		0,0	0,0	0,0%	0,0	
Heating	91,7	96,1	85,3	84,2	75,0	100,9	52,7	81,9%	- 48,2	-47,8%
Katajanokka Skatudden	2,8			1,5	2,1	1,9	1,5	2,4%	- 0,4	-19,7%
Madrid	1,7	0,0		3,2						
Mariehamn	27,6	17,0	17,5	11,4	4,5	21,8	16,6	25,8%	- 5,2	-23,8%
Mikonkatu	31,6	56,6	58,9	56,1	57,0	64,3	24,4	37,9%	- 39,9	-62,1%
Norrköping				3,5	5,3	5,8	6,2	9,7%	0,4	7,4%
Oslo				0,0	0,0	0,0	0,0	0,0%	0,0	-36,8%
Riga		0,3	4,5	0,2	0,0	0,5	0,2	0,4%	- 0,2	-49,1%
Stockholm	6,4	0,6	1,2	2,9	2,0	2,4	1,6	2,5%	- 0,8	-32,5%
Tallinn	21,7	21,7	3,2	5,4	4,2	4,2	2,0	3,2%	- 2,1	-51,0%
Total	183,5	116,5	124,9	98,3	96,4	134,9	64,3	100,0	- 70,6	-52,3%

Table 7. Climate impact (tonnes CO₂e) for respective energy type 2019-2021 calculated with location-based method. Change since previous year is shown in both tonnes CO₂e and %.

Climate impact (tonnes CO ₂ e)	2016	2017	2018	2019	2020	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Cooling	18,5	3,6	4,6	5,0	4,2	0,0	0,0	0,0%	0,0	
Electric vehicles							0,0	0,0%	0,0	
Electricity						157,1	151,2	74,2%	- 5,8	-3,7%
Location-based						157,1	151,2	74,2%	- 5,8	-3,7%
Heating	91,7	96,1	85,3	84,2	75,0	100,9	52,7	25,8%	- 48,2	-47,8%
Total	110,2	99,7	89,9	89,2	79,3	257,9	203,9	100,0	- 54,0	-20,9%



Figure 4 shows the origin of the consumed electricity.

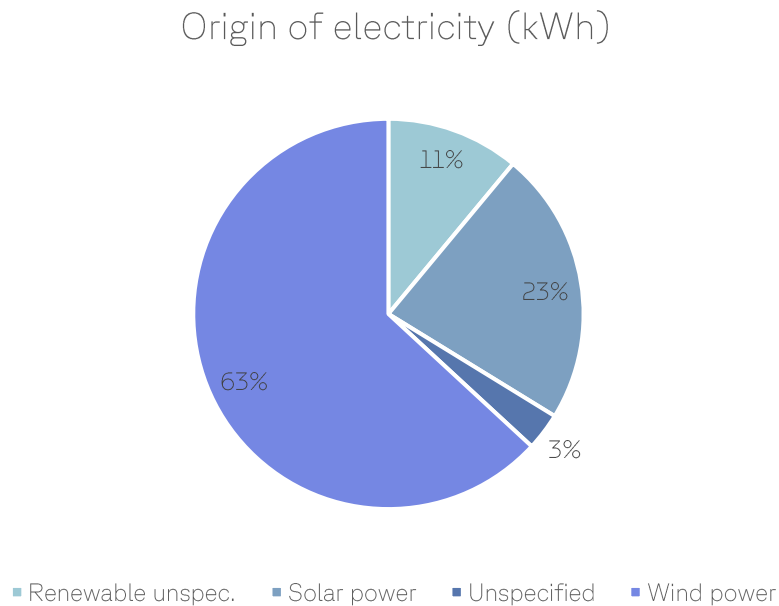


Figure 4. Electricity consumption per energy source.

Table 8 show the yearly consumption of electricity and the origin of the consumed electricity. The share of fossil free electricity this year is 97,2%.

Table 8. Electricity consumption (kWh) per year and energy source.

Energy (kWh)	2016	2017	2018	2019	2020	2021	2022	Change % 2021 - 2022
Cooling	81 766	79 387	110 030	101 180	96 181	73 899	39 097	-47,1%
Electricity	1 278 062	981 342	1 085 084	1 056 395	675 721	573 073	701 684	22,4%
Heating	1 139 723	944 908	991 788	1 043 384	824 140	1 033 238	757 436	-26,7%
Total	2 499 551	2 005 637	2 186 902	2 200 959	1 596 042	1 680 210	1 498 217	-10,8%

KPIs, Scope 2

Table 9. KPIs for scope 2 for the years 2016 – 2022 with marked-based method. 2016, 2017 and 2019 no office area was reported why no KPIs are reported.

KPI Scope 2	2018	2020	2021	2022	Change 2021 - 2022	Change % 2021 - 2022	Unit
Climate impact per area	0,01	0,01	0,01	0,01	- 0,01	-113,3%	t CO ₂ e / m ²
Energy consumption per area	198,50	147,94	154,59	135,53	- 19,06	-14,1%	kWh / m ²



The business is recommended to continue purchasing renewable electricity as it is an effective measure to reduce its climate impact. In addition to switching to renewable electricity, it is also important to work with energy efficiency as the renewable electricity must be sufficient for a lot in an increasingly electrified society.

Regarding district heating, the company is recommended to review its consumption. This can be done by lowering the temperature and looking over unused surfaces that do not need to be heated. Hot water is also, in many cases, heated with the help of district heating. The business can therefore review and, if possible, reduce hot water consumption. The business can also review whether the building can be made more energy efficient through sealing.

It is possible that the climate impact from heating the office in Mikonkatu previous year has been too high. The heating consumption (kWh) has been calculated with an average of the building's heating consumption and reported by PAF. The heating consumption has however not been representative to PAF's consumption since there is a restaurant in the building using more heating. The consumption for the Mikonkatu office has this year been calculated with an average of the other reported offices why the climate impact is lower.



Scope 3

The climate impact within scope 3 stands for 1 785,1 tonnes CO₂e corresponding to 95,6% of the calculated climate impact, see Figure 5 and Table 10. PAF's scope 3 consists of downstream leased assets, business travel, purchased goods and services, fuel- and energy-related activities (not included in scope 1 or 2). Since last year scope 3 has increased with 31,1%.

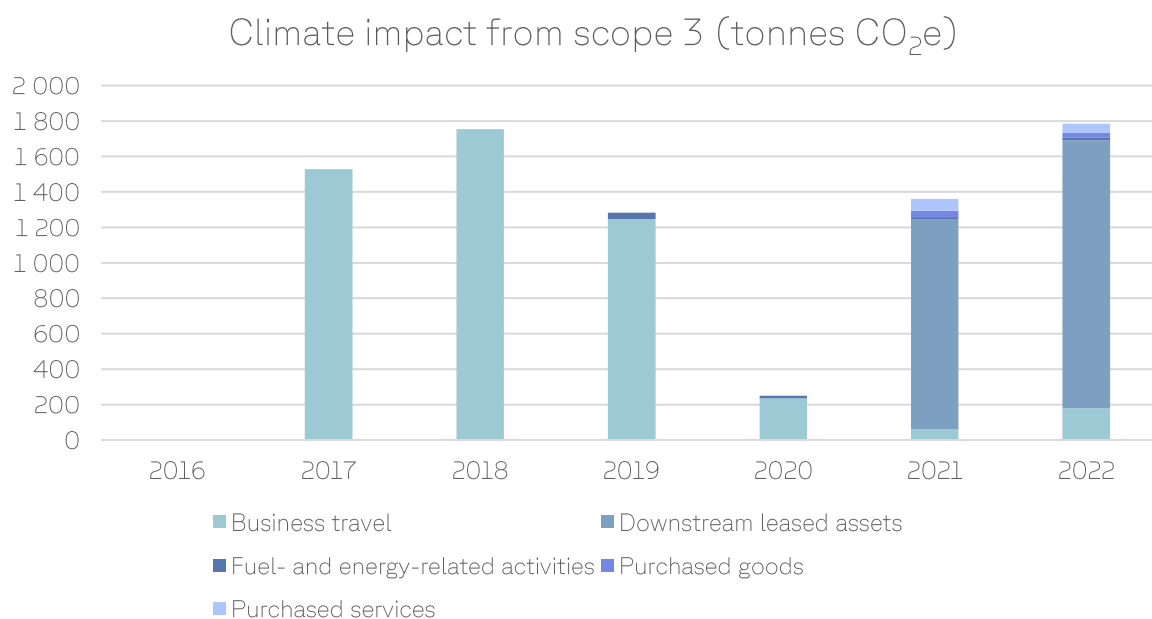


Figure 5. Climate impact scope 3.

Table 10. Climate impact (tonnes CO₂e) scope 3.

Climate impact (tonnes CO ₂ e)	2016	2017	2018	2019	2020	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Business travel		1 524,4	1 751,2	1 246,9	234,5	62,4	180,2	10,1%	117,8	188,9%
Downstream leased assets						1 185,3	1 511,7	84,7%	326,5	27,5%
Fuel- and energy-related activities	0,9	0,0	1,0	36,2	15,8	10,6	14,0	0,8%	3,4	31,8%
Purchased goods						35,0	27,1	1,5%	- 7,9	-22,5%
Purchased services						67,9	52,1	2,9%	- 15,8	-23,3%
Total	0,9	1 524,5	1 752,1	1 283,1	250,3	1 361,1	1 785,1	100,0%	423,9	31,1%



Category 1 - Purchased Goods

Purchased goods (only laptops and smartphones included) accounts for 27,1 tonnes CO₂e, corresponding to 1,5% of the measured climate impact. Figure 6 and Table 11 show PAF's climate impact from purchased goods. Since last year the climate impact has decreased 22,5%.

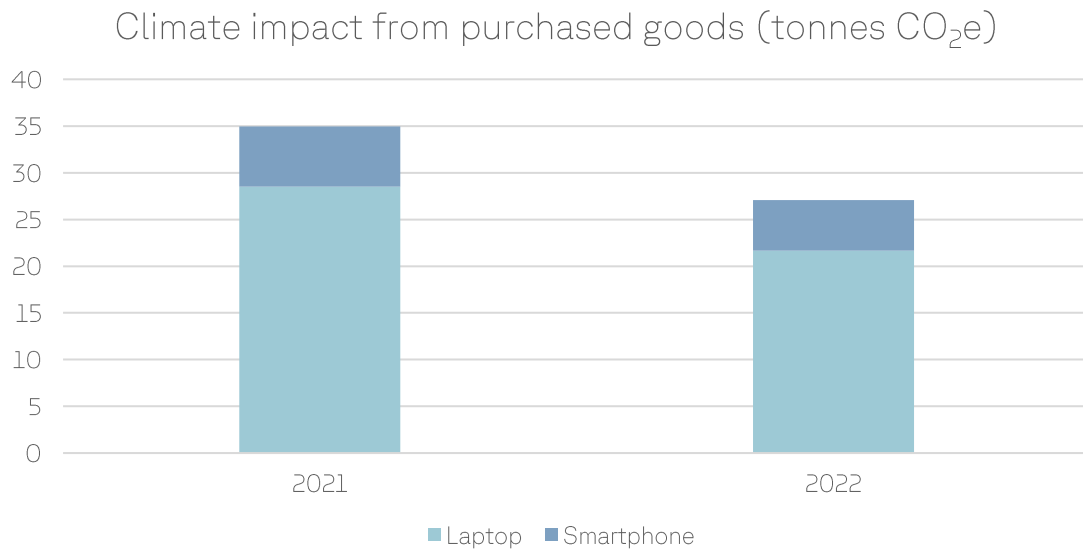


Figure 6. Climate impact from purchased goods.

Table 11. Climate impact (tonnes CO₂e) from purchased goods 2016 - 2022. Change since previous year is shown in both tonnes CO₂e and %.

Climate impact (tonnes CO ₂ e)	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Electronics	35,0	27,1	100,0%	- 7,9	-22,5%
Laptop	28,5	21,7	79,9%	- 6,8	-24,0%
Smartphone	6,5	5,4	20,1%	- 1,0	-15,8%
Total	35,0	27,1	1,3%	- 7,9	-22,5%

The business is recommended to a greater extent lease/rent products instead of buying. Buying recycled products results in a lower climate impact, as do products with a high percentage of recycled materials.

PAF is recommended to increase the scope within purchased good and include more goods in the climate audit.



Category 1 - Purchased Services

Figure 7 and Table 12 show PAF's climate impact from purchased services (hosting only). The climate impact from this category accounts for 52,1 tonnes CO₂e corresponding to 2,8% of the measured climate impact. Since last year, the climate impact has decreased with 23,3% .

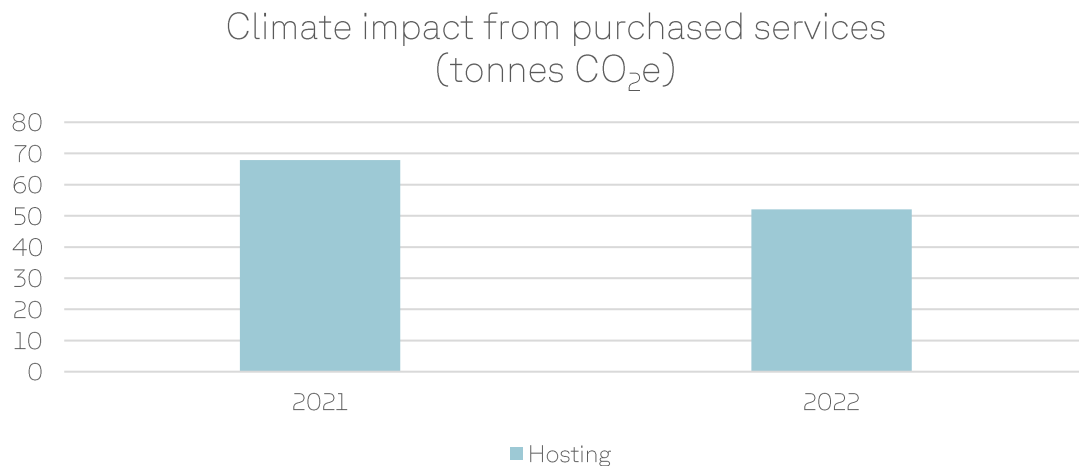


Figure 7. Climate impact from purchased services.

Table 12. Climate impact (tonnes CO₂e) from services 2016 - 2021. Change since previous year is shown in both tonnes CO₂e and %.

Climate impact (tonnes CO ₂ e)	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Hosting	67,9	52,1	100,0%	- 15,8	-23,3%
Total	67,9	52,1	2,4%	- 15,8	-23,3%

Less kWh was reported and the hosting in Åland stopped during 2022. The hosting service in Ireland continued which has 60% of the electricity coming from renewable sources, wind power was assumed. The climate impact would decrease further if 100% renewable electricity was used for the hosting.

PAF is recommended to extend the content within this category for next year's climate audit.



Category 3 - Fuel- and Energy-Related Activities

The category fuel- and energy related activities includes indirect lifecycle emissions related to emission sources in scope 1 and 2. The category includes the climate impact from extraction and production of fuel, construction and maintenance of power systems and transmission and distribution losses in electricity grids. The climate impact from this category accounts for 14,0 corresponding to 0,8% of the measured climate impact, see Figure 8 and Table 13. The climate impact from this category is depended on the scope 2 method used for purchased electricity, why also the results for the location-based method is shown in Table 14.

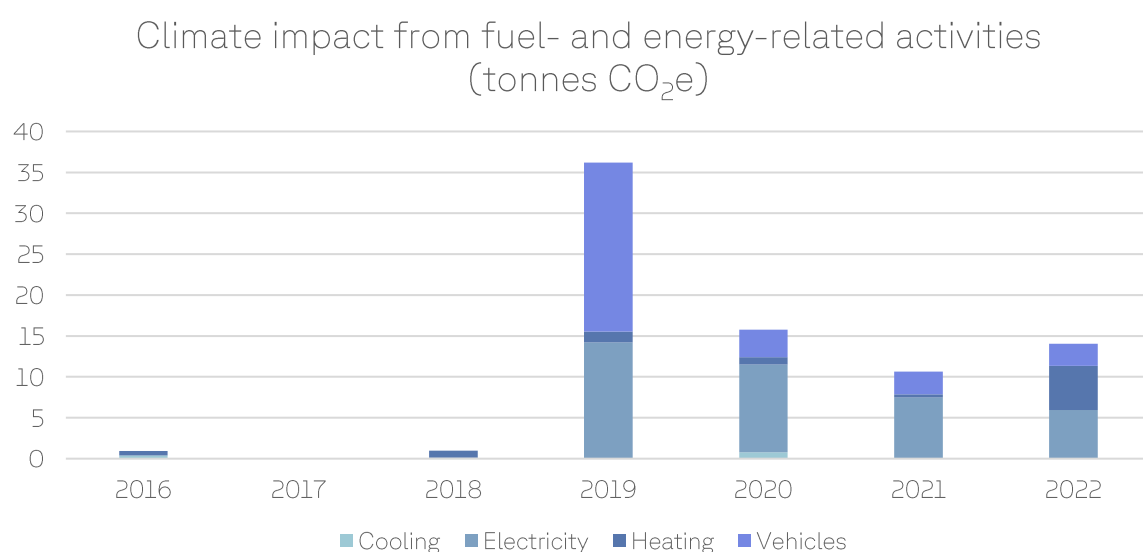


Figure 8. Climate impact from fuel- and energy-related activities with marked-based method.

Table 13. Climate impact from fuel- and energy-related activities with market-based method.

Climate impact (tonnes CO ₂ e)	2016	2017	2018	2019	2020	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Cooling	0,4	0,0	0,0	0,0	0,8	0,0	0,0	0,1%	0,0	
Electricity	0,0	0,0	0,1	14,2	10,7	7,5	5,9	42,2%	- 1,5	-20,5%
Hydropower			0,0							
Renewable unspec.	0,0	0,0	0,1	11,6	7,9	0,5	1,3	9,2%	0,8	152,0%
Solar power							0,0	0,0%	0,0	
Unspecified	0,0	0,0	0,0	1,5	2,8	3,4	1,2	8,8%	- 2,2	-63,8%
Wind power				1,1		3,5	3,4	24,2%	- 0,1	-4,0%
Heating	0,5	0,0	0,9	1,3	0,9	0,4	5,4	38,6%	5,0	1215,5
Vehicles	0,0	0,0	0,0	20,7	3,4	2,8	2,7	19,0%	- 0,1	-3,7%
Total	0,9	0,0	1,0	36,2	15,8	10,6	14,0	0,7%	3,4	31,8%



Table 14. Climate impact from fuel- and energy-related activities with location-based method.

Climate impact (tonnes CO ₂ e)	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Cooling	0,0	0,0	0,0%	0,0	
Electricity	3,4	29,8	78,6%	26,4	769,3%
Location-based	3,4	29,8	78,6%	26,4	769,3%
Heating	0,4	5,4	14,3%	5,0	1215,5%
Vehicles	2,8	2,7	7,0%	- 0,1	-3,8%
Total	6,6	37,9	100,0%	31,3	473,2%

The climate impact from this category is dependent on the activities in scope 1 and 2, it means that reductions in scope 1 and 2 also reduce the climate impact from this category. To reduce the climate impact from this category, the business can purchase electricity of renewable origin and reduce the amount of fossil fuels used by the business. Even when measures are taken, there will always be a small climate impact within this category because of the business's activity in scope 1 and 2.



Category 6 - Business Travel

Business travel amounts to 180,2 tonnes or 9,6% of PAF's total climate impact 2022. PAF's climate impact from business travel comes from travel with boat, taxi, trains and planes. Air travel stands for the biggest part of the climate impact as can be seen in Figure 9 and Table 15. Since last year the climate impact has increased by 188,9%.

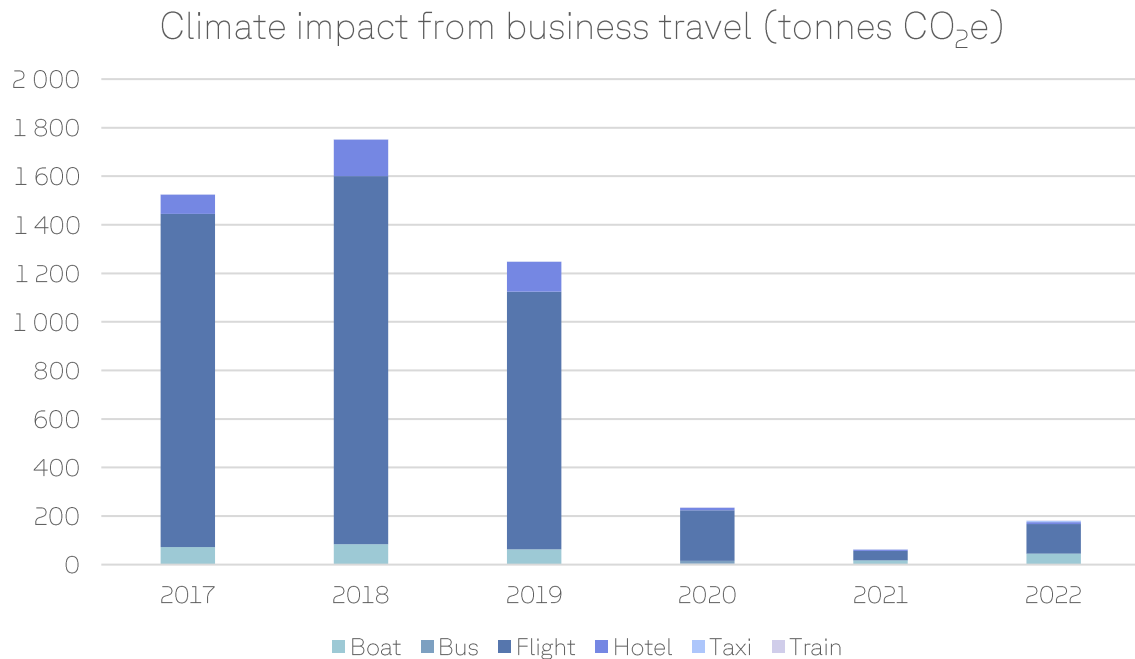


Figure 9. Climate impact of business travel.

Table 15. Climate impact (tonnes CO₂e) from business travel 2016 - 2022. Change since previous year is shown in both tonnes CO₂e and %.

Climate impact (tonnes CO ₂ e)	2017	2018	2019	2020	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Boat	71,7	84,0	62,7	4,3	17,7	46,0	25,5%	28,2	159,1%
Bus				11,0	0,2	0,0	0,0%	- 0,2	-94,7%
Flight	1 372,6	1 516,1	1 061,3	208,4	39,0	120,8	67,1%	81,8	209,8
Hotel	79,9	150,9	122,6	10,7	4,7	7,7	4,3%	3,0	64,2%
Taxi	0,3	0,0	0,1		0,6	5,6	3,1%	5,0	816,3%
Train	0,0	0,1	0,2	0,1	0,1	0,0	0,0%	- 0,1	-88,8%
Total	1 524,4	1 751,2	1 246,9	234,5	62,4	180,2	100,0	117,8	188,9



Air Travel

In Table 16 the climate impact from air travel is presented. It accounted for 120,8 tonnes CO₂e.

Table 16. Most common routes 2022.

Route	No. flights	% of all flights	Emission/ Flight (kg)	Total emissions (kg)	% of total emissions	Total distance (pkm)	% of total distance
ARN-MHQ	349	39,3%	57	19 777	16,4%	42 066	8,1%
ARN-HEL	133	15,0%	104	13 772	11,4%	52 933	10,2%
ARN-MLA	25	2,8%	489	12 216	10,1%	66 491	12,8%
HEL-MHQ	121	13,6%	84	10 150	8,4%	34 071	6,6%
ARN-LHR	26	2,9%	284	7 391	6,1%	38 035	7,3%
ARN-MCO	4	0,5%	1 548	6 193	5,1%	31 210	6,0%
ARN-ZRH	20	2,3%	289	5 771	4,8%	29 763	5,7%
HEL-LHR	16	1,8%	350	5 600	4,6%	29 565	5,7%
ARN-MAD	9	1,0%	479	4 309	3,6%	23 416	4,5%
HEL-MLA	8	0,9%	516	4 132	3,4%	22 582	4,4%
Other	176	19,8%	179	31 510	26,1%	148 260	28,6%
Total	887	100,0%	136	120 820	100,0%	518 392	100,0%

KPIs, Business Travel

Table 17. KPIs for business travel 2016 - 2022. Change since previous year is shown both in tonnes CO₂e and %.

KPI Business travel	2016	2017	2018	2019	2020	2021	2022	Change 2021 - 2022	Change % 2021 - 2022	Unit
Climate impact per employee	0,00	4,01	2,25	1,73	0,31	0,19	0,63	0,45	70,5%	t CO ₂ e / FTE

The most common flight route was between Mariehamn and Stockholm. Big climate benefits can be made by cutting down on short flights and replacing them with digital meetings. The focus is therefore to reduce air travel.

For trips by taxi and the use of rental cars, electric vehicles should be chosen in the first place.



Category 13 - Downstream Leased Assets

The climate impact from usage of PAF's slot machines during the reporting year are presented in this category. The slot machines are located in Åland and on ferries. Figure 10 and Table 18 show PAF's climate impact from downstream leased assets. The climate impact from downstream leased assets accounts for 1 511,7 tonnes CO₂e corresponding to 81,0% of the total climate impact. Since last year the climate impact has increased with 27,5%.

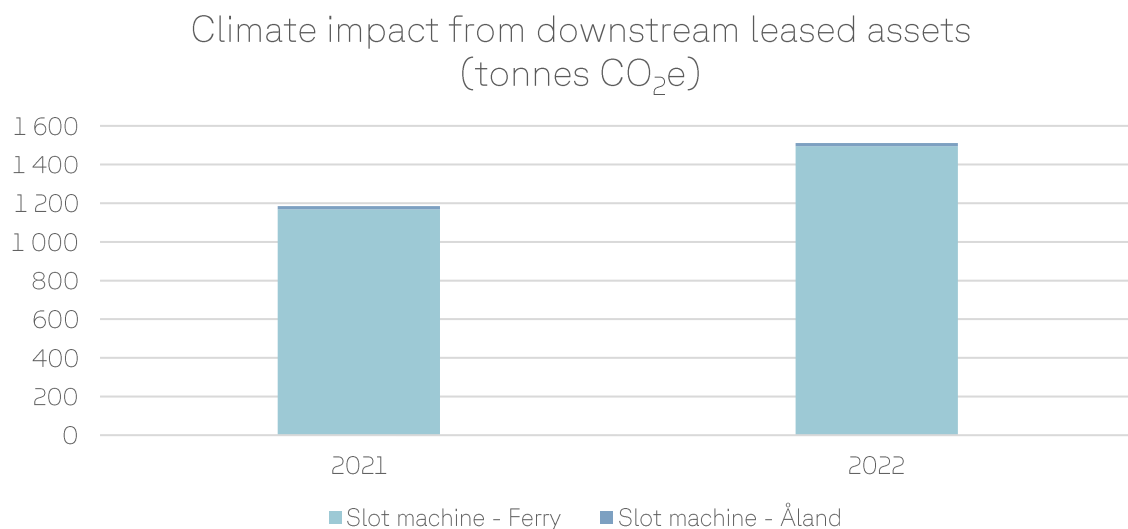


Figure 10. Climate impact from downstream leased assets.

Table 18. Climate impact (tonnes CO₂e) from downstream leased assets 2016 - 2022. Change since previous year is presented in both tonnes CO₂e and %.

Climate impact (tonnes CO ₂ e)	2021	2022	% of total 2022	Change 2021 - 2022	Change % 2021 - 2022
Slot machine					
Ferry	1 167,8	1 493,8	98,8%	326,0	27,9%
Åland	17,5	17,9	1,2%	0,4	2,5%
Total	1 185,3	1 511,7	100,0%	326,5	27,5%

A reason for the increase of climate impact from this category can be due to increased travels after the covid pandemic. Travel restrictions were no longer in place during 2022 making it possible for people to using the ferries more.

To reduce this category PAF needs the support from the ferry companies, the climate impact can be reduced if the electricity on board is produced with renewable electricity or biofuel. PAF can also work with reducing the power needed to the slot machines. Moreover, PAF can add timers to reduce the time the machines are on. Reducing the number of slot machines on the ferries would also reduce the climate impact.



Reliability Analysis

The reliability analysis classifies the result into three categories, measured, estimated and spend (financial data) based on the reliability of the activity data. The purpose is to evaluate the activity data and see whether the data collection can be improved. The analysis is based on whether the data is measured or estimated by the company or whether financial data has been used. Generalizations and average values for emission factors are not evaluated because the company have no influence on these.

Data that are estimated can be replaced with measured data to give a higher reliability of the result. Spend data should be used to a limited extent to achieve higher reliability. Climate impact calculated on spend data gives an overall picture and it can be difficult to reduce climate impact based on such a basis. This is because prices can vary, which falsely makes it look like the climate impact has changed. The distribution of measured, estimated and spend based values is presented in Figure 11 below.

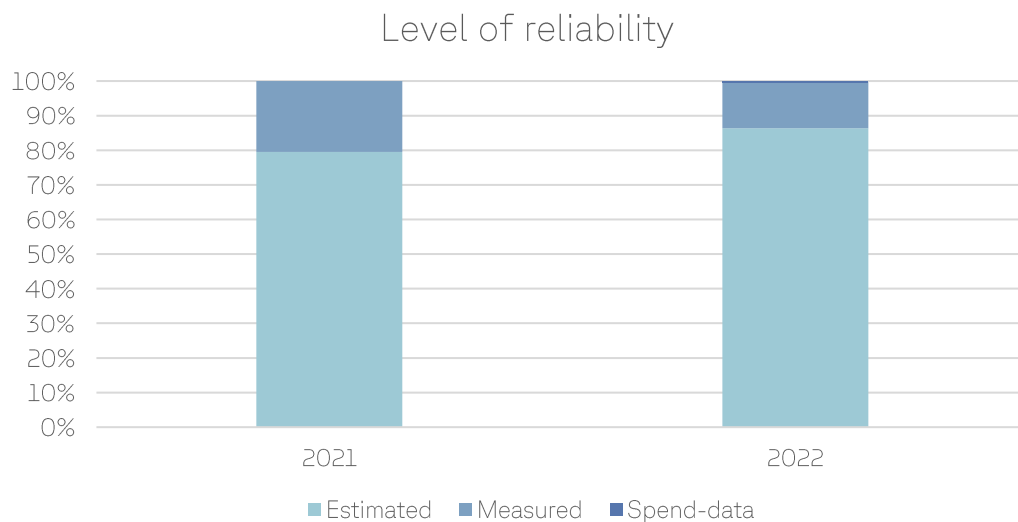


Figure 11. Reliability analysis of data for the climate audit.

The majority of the climate impact labelled as estimated comes from the use of slot machines. More accurate results are obtained if it is measured rather than estimated. When data is measured, it provides greater opportunities to work with and make reductions visible, which is required if targets are to be reached.



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Source
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Purchased services
AIB 2022
Gamesa Siemens EPD 2020
Refrigerants
DEFRA 2022
Vehicles
NTM Calc 2022
NTM Calc 2023



Appendix 1 - Biogenic Carbon Dioxide Emissions

Here, biogenic carbon dioxide emissions that occur within the business and its value chain are reported. Biogenic carbon dioxide emissions occur during the combustion of biomass or biofuels. According to the GHG protocol, biogenic carbon dioxide emissions are not included in the business's reporting limits as the biomass absorbs as much carbon dioxide as is emitted when it is incinerated. According to the GHG protocol, however, biogenic emissions must be reported separately, which is done in this appendix. Biogenic methane and nitrous oxide are included in the GHG protocol and are therefore already included in previously presented results.

In 2022 199,8 tonnes of biogenic carbon dioxide were emitted. Figure A1 and Table A1 are showing in which scope the emissions arise. The emissions come from biofuels used in cars, combustion of biomass for district heating and electricity at PAF's facilities. Biogenic emissions in scope 3 comes from the electricity used for hosting.

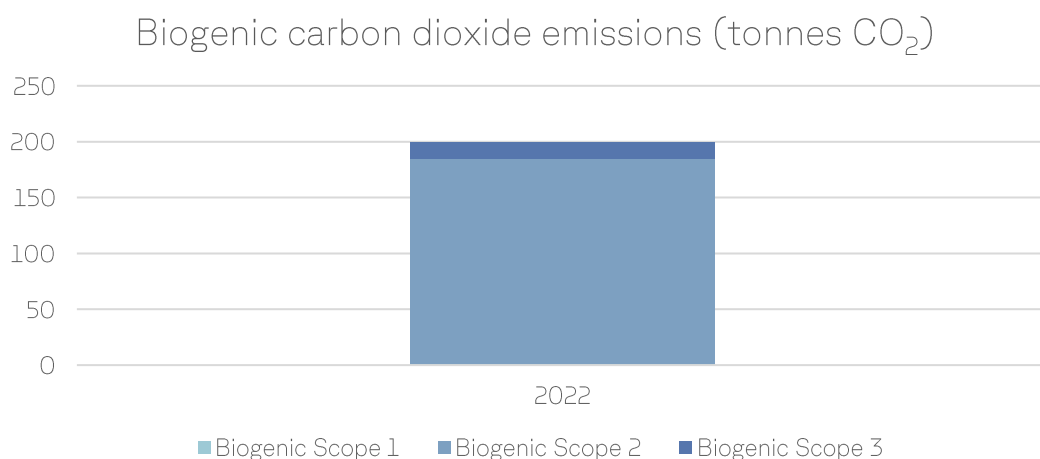


Figure A1. Biogenic emissions (ton CO₂).

Table A1. Biogenic emissions (ton CO₂).

Climate impact (tonnes CO ₂)	2022	% of total 2022
Biogenic Scope 1	1,5	0,7%
Vehicles	1,5	0,7%
Biogenic Scope 2	183,6	91,9%
Electricity	8,0	4,0%
Heating	175,6	87,9%
Biogenic Scope 3	14,8	7,4%
Downstream leased assets	5,9	3,0%
Purchased services	8,9	4,4%
Total	199,8	100,0%

