

A close-up photograph of several dark green, elongated leaves with prominent veins, filling the left side of the image.

CARBON FOOTPRINT AND ENVIRONMENTAL INDICATORS 2021

April 2022

V&A

About the Carbon Footprint Report

This Report presents Vieira de Almeida & Associados, Sociedade de Advogados SP RL' ("VdA") carbon footprint results and correlated environmental indicators for 2021.

The Carbon Footprint Report acts as the main annual assessment tool of VdA's Green Project (environmental sustainability project) and also aims to report these results to the Legal Sustainability Alliance (LSA), which VdA is a member of.

The values here presented were calculated based on the methodology of the Greenhouse Gas Protocol, applied to the legal sector, and using conversion factors adapted to the Portuguese reality.

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EXECUTIVE SUMMARY



VdA's Environmental Performance in 2021 at a Glance

In 2021, all VdA environmental indicators maintained an upward trajectory exceeding the targets set for the period 2018-2022.



Environmental Targets 2018-2022

- 5% resource consumption per employee
- 5% carbon emissions per employee
- + 5% waste recycling rate



100% of renewable electricity
330 tCO₂e avoided per year, equal to
5 300 Lisbon-Oporto car trips



2 885 kWh de energia consumida
 por colaborador
-15% 2018-2021



1 909 km travelled per employee on
 business trips
-87% 2018-2021

100% of the electricity
 consumed by VdA stems from
 certified renewable origin
 Its production is carbon neutral



66% waste recycled
+9% 2018-2021



34 kg of paper consumed
 per employee
-35% 2018-2021



8 m³ of water consumed per
 employee
-27% 2018-2021

Two thirds of the waste
 produced is recycled
 Water and paper consumption
 was reduced by approximately
 a third compared to 2018
 figures



151 t CO₂e of carbon footprint
 (scope 1, 2 e 3 emissions)
-998 tCO₂e 2018-2021



0,33 t CO₂e of carbon emissions per
 employee
-88% 2018-2021



15 000 trees per year to offset
 VdA's carbon footprint

The use of renewable electricity
 and the change in mobility
 patterns reduced VdA's carbon
 footprint by over 85%,
 compared to 2018

Notes: (1) Energy includes electricity and fuels (natural gas and diesel) consumed at VdA's premises. (2) Mobility includes use of VdA's motorbike fleet and travel by air, train, taxi and Uber, rental car and personal vehicle for business purposes. (3) Carbon footprint includes Scope 1, 2 & 3 emissions and considers electricity emissions calculated according to the specific carbon content of the electricity purchased (Market-based method). (4) Emissions avoided with the purchase of renewable electricity in 2021 correspond to the emissions associated with the consumption of an equivalent quantity of electricity with the average carbon content of the national electricity grid, in the same period.

VdA CARBON FOOTPRINT



VdA's Carbon Footprint

VdA has measured its carbon footprint since 2011 in accordance with the Greenhouse Gas Protocol methodology.

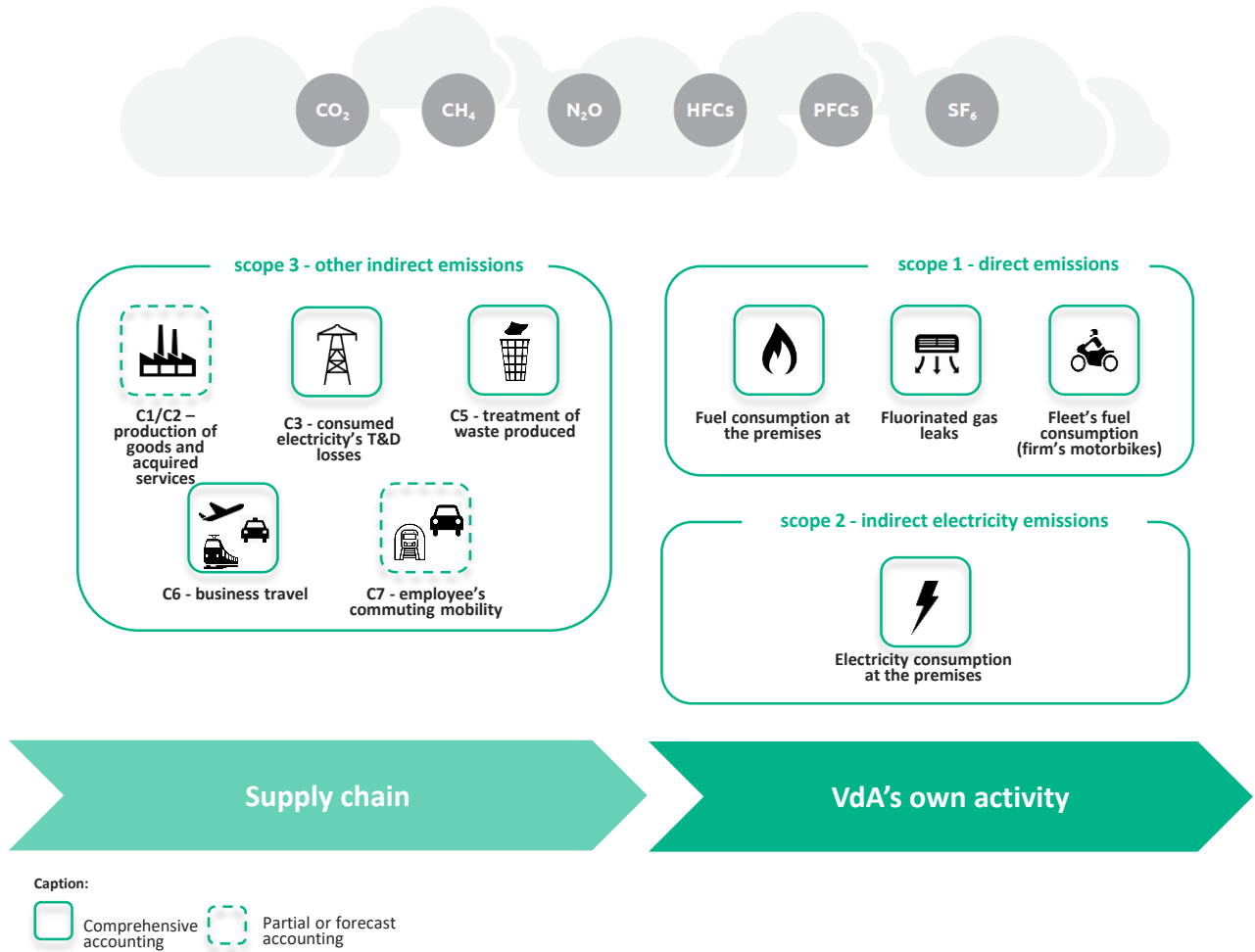


Fig. 1 – VdA's Carbon Footprint: activities and emission sources

The emission of greenhouse gases (GHGs) as a result of human activities is recognised as the main cause of climate change. Its assessment and reduction, across all sectors of activity, is essential to tackle this challenge.

According to the latest report of the Intergovernmental Panel on Climate Change, it will be necessary to reduce global emissions by 50% before 2030 and achieve a neutral balance between emissions and carbon removals by 2050 in order to limit global warming to 1.5°C in 2100, in relation to pre-industrial levels.

VdA's operations are responsible - directly and indirectly - for the emission of various GHG, the most important of which is carbon dioxide (CO₂). The emissions result from both its own activity and the supply chain.

Through the Green Barometer – part of the VdA Green Project, the firm's environmental sustainability programme - VdA monitors, on a quarterly basis, its performance in terms of energy consumption, materials, water and mobility. The results are communicated regularly to all employees, accompanied by an information and awareness message.

Based on the Green Barometer's results, VdA has measured its carbon footprint since 2011 in accordance with the Greenhouse Gas Protocol methodology, applied to the legal sector, in line with the Legal Sustainability Alliance guidelines. The main emission sources applicable to the activity are already measured and an expansion of the inventory is being prepared in order to integrate the emission categories not yet accounted for.

In 2018, the firm also defined a set of quantitative environmental objectives for reducing consumption and emissions by 2022: a 5% reduction in resource consumption and carbon emissions per employee and a 5% increase in the waste recycling rate.

VdA is a member of the Legal Sustainability Alliance (LSA), an international organisation of law firms committed to promoting sustainability. It is also a member of BCSD Portugal, a business association that is part of the global network of the World Business Council for Sustainable Development (WBCSD), and a signatory to a number of initiatives, including act4nature Portugal, an initiative promoted by BCSD Portugal within act4nature international, with the aim of mobilising companies to protect, promote and restore biodiversity; the commitment Lisboa Green European Capital 2020, with the purpose of complying with the Paris Agreement and making Lisbon a climate benchmark; and The Porto Protocol, a business forum for sharing and debating the fight against climate change.

VdA is also a member of the United Nations Global Compact and is among the first 600 companies in the world to have joined the SDG Ambition Programme, through which it has committed to actively contribute to achieving the Sustainable Development Goals (as SDGs).

RESOURCE CONSUMPTION 2021



Resource Consumption

In 2021, all resource consumption targets set for the period 2018-2022 were met.

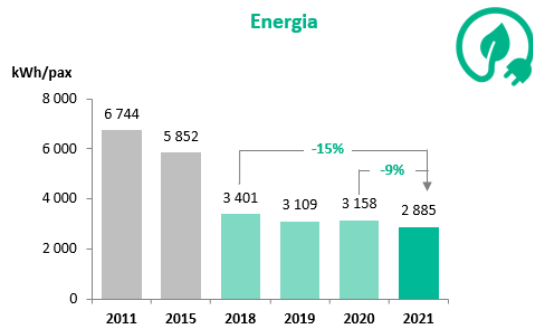


Fig. 2 – Energy consumed per employee



Energy consumption continued to decrease both in absolute terms and per employee.

Optimising the operation of the buildings' air conditioning and ventilation systems for the reduced occupancy rates that were maintained in 2021 resulted in relevant energy savings.

Between 2018 and 2021, energy consumption per employee decreased by 15%, outperforming the 2022 target.

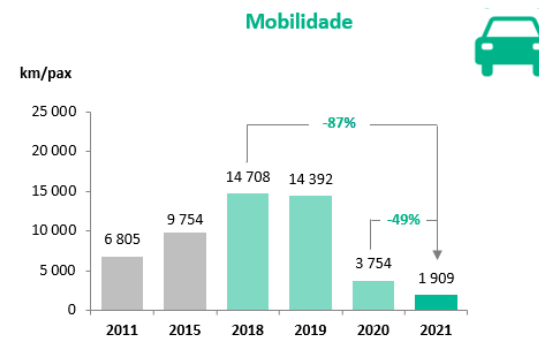


Fig. 3 – Distance travelled per employee on business trips



Restrictions on mobility which continued into 2021, resulted in a further decrease in business trips.

The increase in measures such as remote meetings or the use of digital collaboration tools, allowed productivity to be maintained, while obtaining environmental benefits.

The travel pattern seen in 2021 translated into emissions 87% below those seen in 2018, a performance far beyond the 2022 target.

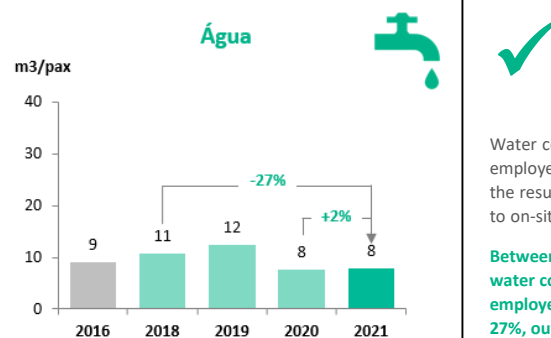


Fig. 4 – Water consumption per employee



Water consumption per employee was up slightly, the result of a partial return to on-site work.

Between 2018 and 2021, water consumption per employee decreased by 27%, outperforming the 2022 target.

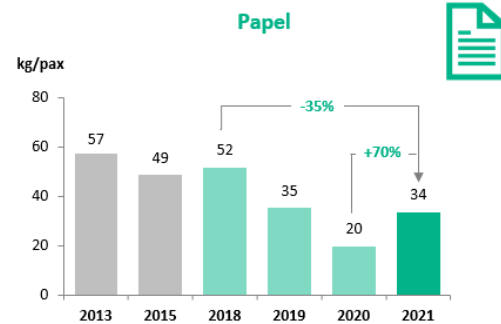


Fig. 6 – Paper consumption per employee



Paper consumption increased as a result of the partial return to on-site work.

Consumption per employee, however, remains below pre-pandemic levels, and has decreased by 35% compared to 2018, outperforming the 2022 target.

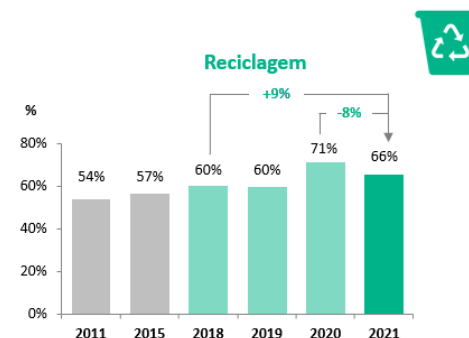


Fig. 5 – Waste recycling rate



The recycling rate had a slight decrease, as a result of changes in the paper collection circuits.

Between 2018 and 2021 the overall recycling rate increased by 9%, outperforming the 2022 target.

CARBON FOOTPRINT 2021



Greenhouse Gas Emissions

The switch to renewable electricity reduced VdA's carbon footprint by circa 50%.

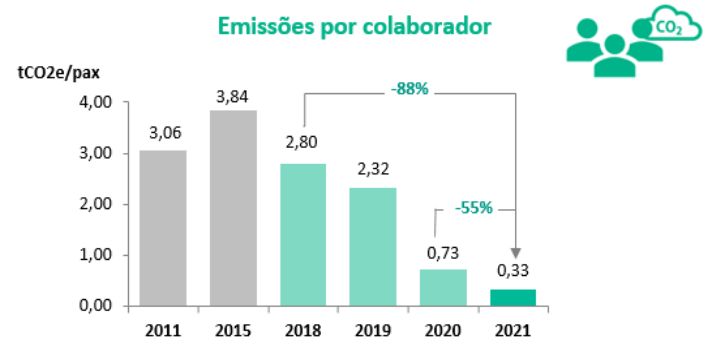


Fig. 7 – Emissions per employee



In 2021, 100% of the electricity consumed by VdA was from renewable sources, with no CO2 emissions. This attribute is certified by the respective Guarantees of Origin, which have been cancelled on behalf of the firm.

The switch to renewable electricity has enabled the carbon footprint reduction by circa 50%. A further reduction resulted from the significant decrease in business trips during the Covid-19 pandemic period.

Between 2018 and 2021, emissions per employee were reduced by 88%, outperforming the 2022 target.

Greenhouse Gas Emissions

The switch to renewable electricity reduced VdA's carbon footprint by circa 50%.

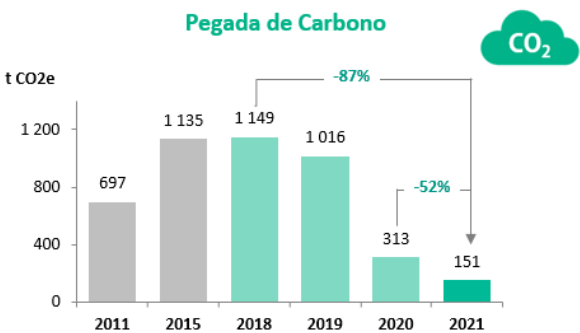


Fig. 8 – VdA Carbon Footprint: evolution and breakdown per source in 2021

The exclusive consumption of renewable electricity and the significant reduction in business trips have reduced VdA's total carbon footprint by 87% between 2018 and 2021.

Tab. 1 – VdA Carbon Footprint: global results

	2011	2015	2018	2019	2020	2021
Emissões âmbito 1	49	37	11	10	7	14
Emissões âmbito 2 - Market-based method	472	815	467	339	105	0
Emissões âmbito 2 - Location-based method	547	461	397	485	414	331
Categoria 1 e 2- produtos e serviços adquiridos*	n.d.	n.d.	12	11	6	6
Categoria 3 - perdas T&D eletricidade	n.d.	n.d.	39	47	40	30
Categoria 5 - Tratamento de resíduos e água residuais	13	9	19	17	9	7
Categoria 6 - Deslocações em serviço	164	274	601	593	147	94
Emissões âmbito 3	177	283	671	668	201	137
Total de emissões - Market-based method	697	1135	1149	1016	313	151
Total de emissões por colaborador	3,06	3,84	2,80	2,32	0,73	0,33

* Only emissions associated with the treatment of water consumed and wastewater discharged are accounted for.
Market-based method: considers the carbon content of the electricity purchased from the supplier. As of 01.07.2020, VdA only purchases electricity of renewable origin.
Location-based method: considers the average carbon content of electricity produced in Portugal.

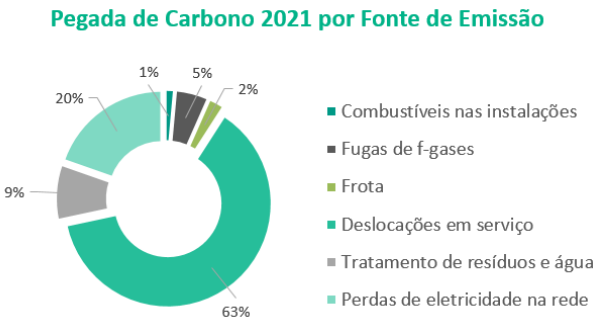


Fig. 8 – VdA Carbon Footprint: evolution and breakdown per source in 2021



In the context of the protocol established with the Tapada Nacional de Mafra nature reserve, VdA supports the management of 31 ha of land (VdA's Zero Carbon Zone) populated by deciduous and coniferous species in which silvicultural (pruning and planting) and forest fire protection operations are conducted.

Under the Protocol, a research project is being carried out to test a new methodology to determine the CO2 removal capacity of that area, and define ways to optimise this ecosystem service essential to the overall target of carbon neutrality.

ANNEXES



Resource Consumption – Detailed Information

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Unid		Δ'11-12 (%)	Δ'12-13 (%)	Δ'13-14 (%)	Δ'14-15 (%)	Δ'15-16 (%)	Δ'16-17 (%)	Δ'17-18 (%)	Δ'18-19 (%)	Δ'19-20 (%)	Δ'20-21 (%)
Consumo de combustíveis nas instalações	kWh	160 448	104 831 -35%	100 232 -4%	67 865 -32%	114 924 69%	46 537 -60%	43 468 -7%	23 632 -46%	24 264 3%	12 266 -49%	10 384 -15%
Gasóleo de aquecimento	l	15 624	10 208 -35%	9 760 -4%	6 608 -32%	11 191 69%	4 532 -60%	4 233 -7%	n.a.	n.a.	n.a.	n.a.
Gás natural	kWh								20 650	24 264 18%	11 112 -54%	9 389 -16%
Gasóleo motores estacionários	l								300	0 -100%	116 100%	100 -14%
Consumo de combustíveis na frota própria	l	2 393	2 424 1%	3 081 27%	2 747 -11%	3 223 17%	3 130 -3%	3 173 1%	2 623 -17%	1 918 -27%	1 374 -28%	1 562 14%
Gasolina - motos	l	2 393	2 424 1%	3 081 27%	2 747 -11%	3 223 17%	3 130 -3%	3 173 1%	2 623 -17%	1 918 -27%	1 374 -28%	1 562 14%
Utilização de gases fluorados em equipamentos	kg										1	2 135%
Fugas de gases fluorados	kg	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	0	0	1 100%	2 135%
Consumo de eletricidade nas instalações	kWh	1 377 137	1 263 980 -8%	1 185 500 -6%	1 141 406 -4%	1 617 173 42%	##### -22%	1 358 259 7%	1 370 588 1%	##### -2%	1 336 209 -0,1%	1 299 246 -2,8%
Elettricidade	kWh	1 377 137	1 263 980 -8%	1 185 500 -6%	1 141 406 -4%	1 617 173 42%	##### -22%	1 358 259 7%	1 370 588 1%	##### -2%	1 336 209 -0,1%	1 299 246 -3%
Deslocações em serviço em veículos de terceiros	km	1 517 335	1 568 464	1 347 003	1 535 795	2 841 024 85%	##### 54%	6 239 942 43%	5 993 005 -4%	##### 5%	1 583 241 -75%	837 757 -47%
Avião	pkm	1 358 044	1 396 324 3%	1 197 514 -14%	1 364 356 14%	2 670 533 96%	##### 56%	6 064 098 45%	5 692 612 -6%	##### 6%	1 484 745 -75%	633 385 -57%
Curta distância	pkm	2 998	5 709 90%	4 111 -28%	10 081 145%	29 270 190%	42 185 44%	31 327 -26%	74 245 137%	49 513 -33%	7 274 -85%	7 474 3%
Média distância	pkm	573 255	443 487 -23%	509 478 15%	498 213 -2%	839 837 69%	##### 8%	1 249 274 38%	1 672 681 34%	##### -23%	317 889 -75%	293 557 -8%
Longa distância	pkm	781 792	947 127 21%	683 925 -28%	856 062 25%	1 801 426 110%	##### 79%	4 783 497 48%	3 945 686 -18%	##### 19%	1 159 582 -75%	332 354 -71%
Comboio	pkm	34 545	41 035 19%	34 145 -17%	42 984 26%	37 733 -12%	34 854 -8%	23 278 -33%	63 680 174%	73 570 16%	35 820 -51%	15 045 -58%
Táxi	vkm	25 455	16 984 -33%	13 285 -22%	16 625 25%	22 315 34%	20 888 -6%	26 289 26%	50 145 91%	55 555 11%	23 319 -58%	46 264 98%
Viatura de aluguer	vkm	28 758	31 364 9%	21 557 -31%	11 035 -49%	10 709 -3%	25 501 138%	55 450 117%	128 823 132%	55 542 -57%	9 821 -82%	25 196 157%
Viatura pessoal ao serviço da firma	vkm	70 532	82 757 17%	80 501 -3%	100 795 25%	99 734 -1%	##### 4%	70 827 -32%	57 745 -18%	70 012 21%	29 536 -58%	117 867 299%
Produção de resíduos nas instalações		34 769	34 963 1%	36 859 5%	29 484 -20%	31 836 8%	35 224 11%	42 553 21%	70 292 65%	65 722 -7%	48 217 -27%	33 250 -31%
Reciclagem	kg	18 794	20 554 9%	22 579 10%	17 080 -24%	18 074 6%	19 572 8%	24 031 23%	42 522 77%	39 196 -8%	34 289 -13%	21 831 -36%
Recolha indiferenciada	kg	15 975	14 409 -10%	14 280 -1%	12 404 -13%	13 762 11%	15 652 14%	18 522 18%	27 771 50%	26 526 -4%	13 928 -47%	11 419 -18%
Consumo de água nas instalações							2 979	9 819 230%	4 346 -56%	5 393 24%	3 241 -40%	3 516 8%
Água consumida	m3						2 979	9 819 230%	4 346 -56%	5 393 24%	3 241 -40%	3 516 8%
Consumo de papel							27 255	18 409 -32%	21 200 15%	15 439 -27%	8 482 -45%	15 290 80%
Papel consumido	kg			13 999	12 710 -9%	14 407 13%	27 255 89%	18 409 -32%	21 200 15%	15 439 -27%	8 482 -45%	15 290 80%

Notes:

Fuel consumption of the Firm's vehicles: Does not include partners' vehicles.

Waste: In 2011 and 2012, estimated waste production was based on ratio per employee. Since 2013, the estimate has been calculated based on the actual number of bags of waste produced and kg per bag ratio. Methodology was improved in 2018. Data not available for VdA's Oporto office.

Carbon Footprint – Detailed Information

	Unid	2011	2014	2015	2016	2017	2018	2019	2020	2021	Δ'20-'21 (%)
Âmbito 1	t CO2e	49	24	37	19	18	11	10	7	14	95%
Combustíveis instalações	t CO2e	43	17	29	12	11	5	5	3	2	-15%
Frota própria (motos)	t CO2e	6	7	7	7	7	6	5	3	4	15%
Utilização de gases fluorados	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	0	0	1	8	545%
Âmbito 2 - Market-based method	t CO2e	472	308	815	469	568	467	339	105	0	-100%
Âmbito 2 - Location-based method	t CO2e	547	349	461	346	474	397	485	414	331	-20%
Eletricidade - Market-based method	t CO2e	472	308	815	469	568	467	339	105	0	-100%
Eletricidade - Location-based method	t CO2e	547	349	461	346	474	397	485	414	331	-20%
Âmbito 3	t CO2e	177	162	283	464	679	671	668	201	137	-32%
Deslocações em serviço	t CO2e	164	154	274	412	594	601	593	147	94	-36%
Avião	t CO2e	140	130	249	383	565	554	554	133	54	-59%
Comboio	t CO2e	1	1	1	1	1	2	2	1	0,4	-31%
Táxi/TVDE	t CO2e	5	3	4	4	5	9	11	5	10	109%
Viaturas aluguer	t CO2e	5	2	2	5	10	24	11	2	5	167%
V. pessoais ao serviço firma	t CO2e	13	18	18	19	13	11	14	6	25	315%
Tratamento de resíduos	t CO2e	13	8	9	10	12	19	17	9	7	-18%
Água	t CO2e				8	26	12	11	6	6	-4%
Tratamento de água consumida	t CO2e				1	3	1	2	1	1	-53%
Tratamento de águas residuais	t CO2e				7	23	10	9	5	5	7%
Perdas T&D eletricidade consumida	t CO2e				34	46	39	47	40	30	-25%
TOTAL (âmbito 1, 2 e 3) - Market-based method	t CO2e	697	494	1 135	952	1 265	1 149	1 016	313	151	-52%

Accounting Methodology

VdA's carbon footprint is calculated in accordance with the Greenhouse Gas Protocol methodology, applied to the legal sector in line with the Legal Sustainability Alliance guidelines.

The GHG Protocol Scope 2 Guidance was also followed when accounting and reporting VdA's emissions resulting from the consumption of electricity.

The Firm's carbon footprint is presented taking into account all Scope 1, 2 and 3 emissions and based on Scope 2 emissions calculated in accordance with the *market-based method*, which reflects the specific carbon content of purchased electricity.

Scope

The calculation of emissions only considers VdA's activity in Portugal (at its Lisbon and Oporto offices). The offices and activities of the VdA Legal Partners international network were not accounted for, seeing as their operation is the responsibility of each local partner.

All direct sources of emissions (Scope 1) and indirect sources associated to purchased electricity (Scope 2) were accounted for. Scope 3 included emissions relevant to the Firm's activity, namely those resulting from business travel, the treatment of waste and wastewater produced at its offices, the treatment of consumed water and losses in the transmission and distribution of purchased electricity.

Data on paper consumption is also presented. Emissions associated to paper's life cycle, however, have not been taken into account when calculating VdA's carbon footprint.

Calculation Parameters

All six greenhouse gases covered by the Kyoto Protocol were considered. The results are presented in CO₂ equivalent, using the Global Warming Potential (GWP) values published by the IPCC (Intergovernmental Panel on Climate Change) – Forth Assessment Report.

Emissions were calculated based on data representative of VdA's activity through the year. Emission factors defined by the IPCC were applied to this data and then adapted to the Portuguese reality based on data published by official national entities.

The following specific criteria were also applied:

- **Electricity** – Market-based method: annual emission factor for the reporting year, published by VdA's electricity supplier. Since the second semester of 2020 the electricity consumed at VdA is 100% renewable with a zero emission factor; Location-based method: average emission factor of mainland Portugal's power grid (most recent data published by the European Environmental Agency).
- **Air travel** – Emission factors per passenger.km for each type of flight (short, medium or long-haul). In accordance with the LSA Protocol guidelines, the Radiative Forcing Index (RFI) was not applied to these emissions.
- **Train travel** – Emission factor representative of Portugal's public railway transport network.
- **Travel by rental car or personal vehicle** – Emission factor representative of the average light-duty passenger vehicle (petrol or diesel-run) circulating in Portugal.
- **Waste treatment** – Emission factor representing the total period of waste degradation in landfill (30 years). Emissions linked to recycling and energy recovery are considered void, as these are allocated to the respective sectors of activity.
- **Treatment of water consumed and wastewater produced** – Emission factors representative of the corresponding processes.
- **T&D losses of electricity consumed** – Emission factor representative of losses in mainland Portugal's power grid (% of losses published by the Directorate-General of Energy and Geology and average emission factor of national grid).

Data Collection: Procedures and Assumptions

The data here presented on VdA's activity was obtained as follows:

- **On-site fuel consumption** – Data extracted from supplier invoices (natural gas) and building's maintenance records (diesel emergency power generators and motor pump).
- **Fuel consumption of the Firm's vehicles** – Calculated based on the Firm's accounting movements and the average annual price of fuel in the year (source: Directorate-General of Energy and Geology).
 - Only fuel consumed by VdA's motorbikes (used for deliveries) was considered. The refuelling of partners' cars was excluded.
- **Electricity consumption at the Firm's premises** - Data extracted from supplier invoices.
- **Air travel** - Register of flights. Distances were calculated based on the origin-destination pair approach, plus the adjustment factor (non-direct routes and waiting time for landing).
- **Train travel** - Calculated based on the Firm's accounting movements, identifying origin-destination pairs based on the cost/type of trips between Portugal's main train stations (Lisbon, Oporto, Coimbra, Faro and Aveiro).
- **Travel by taxi** - Calculated based on the Firm's accounting movements and the average price per km charged for taxi rides (according to the price list in force in the year and based on the standard urban daytime rate) in a four-seater car, with no additional charges (source: Directorate-General for Economic Activities and Antral).
 - Uber trips were also included based on billing information (namely, km travelled).
- **Travel by rental car** - Calculated based on the Firm's accounting movements and the number of km charged in the service provider's invoices. Fuel supply was not taken into account in order to avoid double counting.

Data Limitations

In 2021, it was not possible to collect data on waste produced at VdA's Oporto office.

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