CARBON FOOTPRINT 2014

Vieira de Almeida & Associados

VIEIRA DE ALMEIDA & Associados Sociedade de Advogados, RL

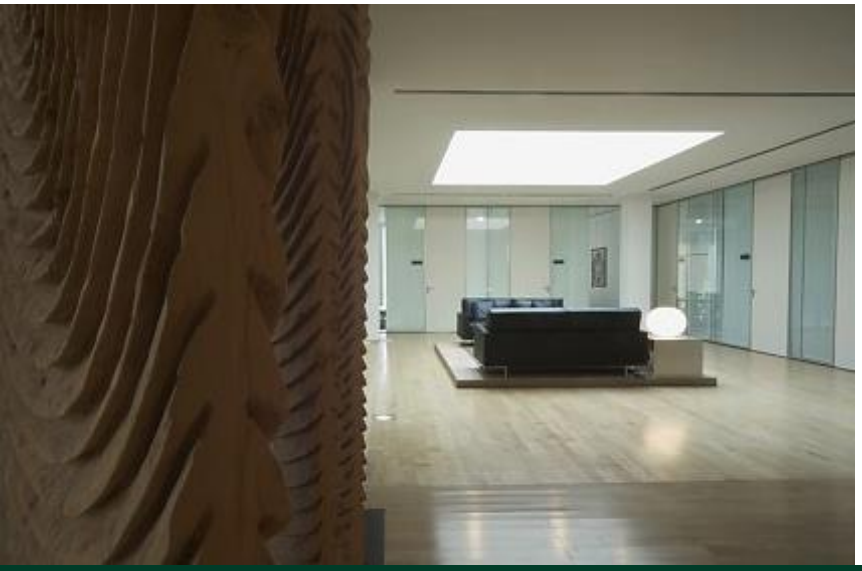
CONTENTS

Index

About this report

This report presents Vieira de Almeida & Associados (VdA)'s carbon footprint in 2014.

Calculations followed The Legal Sector Alliance Carbon Footprint Protocol, adapted to the Portuguese reality.



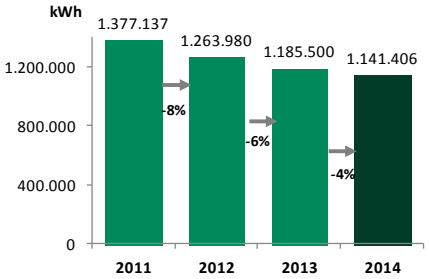
EXECUTIVE SUMMARY

VdA´s Carbon Footprint 2014

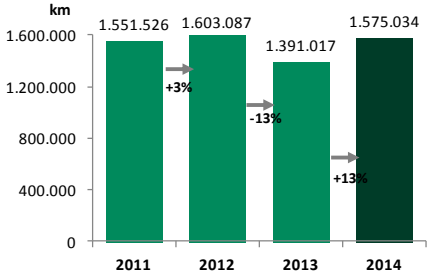
Consumption

In 2014, VdA improved its efficiency levels, both in office electricity consumption and in the production of waste. However, regarding business travel, VdA´s record shows a slight regression compared to 2013.

Electricity

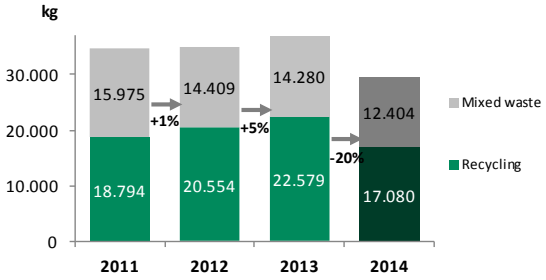


Travel



Note: Business travel includes the firm´s motorbikes, airplane trips, train trips, taxi trips, rental vehicles and employees´ cars used for business purposes.

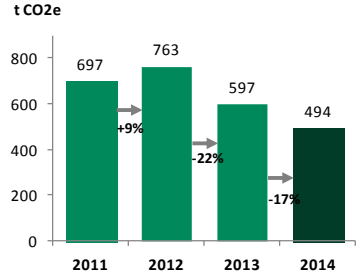
Waste



Emissions

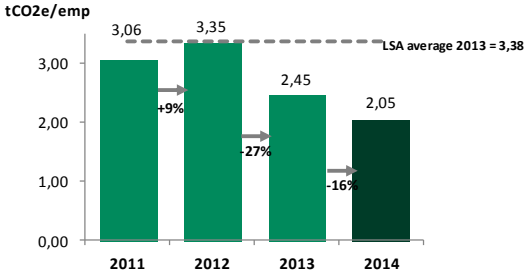
VdA´s carbon footprint registered an overall 17% reduction in comparison with 2013 (less 103 t CO_2e). This was due to the combined effect of a reduced electricity consumption and increased use of electricity generated by renewable sources.

Carbon Footprint



VdA's emissions per employee remained lower than the average values reported by the Legal Sector Alliance's members.

Emissions per employee



VdA´s total carbon emissions in 2014 are equivalent to 4 580 car return trips between Lisbon and Oporto.

ABOUT THE GREEN PROJECT AND VdA´s CARBON FOOTPRINT

VdA´s Profile

VdA is one of the major law firms in Portugal, providing legal advice in 17 areas of practice for over 35 years, with offices in the Portuguese cities of Lisbon and Oporto, and a team of 241 members (164 lawyers and 77 members as support staff).

VdA also advises abroad, through VdAtlas, the firm's international platform through which VdA keeps professional partnerships with local partners, with a special focus in the Portuguese-speaking markets, namely Mozambique, Angola, Brazil and East-Timor.

	Staff members		
Office	Lawyers	Support Staff	Total
Lisboa	158	75	233
Oporto	6	2	8
TOTAL	164	77	241

Fig. 1 – VdA: advising in Portugal and international partnerships 2014.

The Green Project

VdA was the first Portuguese law firm to have established a formal CSR and Pro Bono project, managed by a Pro Bono committee which sets an annual plan of action and monitors its execution. The programme focuses on two axes of intervention: environmental responsibility and social responsibility. Activities under the scope of environmental responsibility are taken forth through the Green Project, an internal programme which focuses on sustainable development and eco-efficiency and aims to minimize the firm's activity's environmental impact by optimizing resources consumption, namely energy and materials.

Assessing the carbon footprint, i.e. greenhouse gas emissions associated to a firm's activity, and how to reduce it, proves to be one of the main indicators on eco-efficiency for a firm due to the range of aspects it analyses.

Fig. 2 – VdA´s Pro Bono and Corporate Social Responsibility Programme.

In 2011, VdA became one of the currently 292 members of the Legal Sector Alliance (LSA), an international organization made up of law firms committed to fighting climate change by adopting sustainable practices and reducing their carbon footprints.

VdA´s Carbon Footprint

VdA's professional daily activity is responsible for direct and indirect emissions of greenhouse gases (GHG or carbon) the most important of which is carbon dioxide (CO2).

GHG emissions result majorly from energy consumption either at the firm's premises or in business travel. Although less relevant in quantitative terms, there are also other emissions with a higher greenhouse effect than CO2. These are methane (CH4), and fluorinated gases.

The carbon footprint is the result of the overall measuring of these emissions according to established international calculating methods.

GHG emissions resulting from human activity is acknowledged as the main source of climate change at present. Its assessment and reduction in all sectors of activity is therefore a main tool in fighting the problem.

VdA measures its carbon footprint in accordance with *The Legal Sector Alliance Carbon Footprint Protocol guidelines,* since 2011.

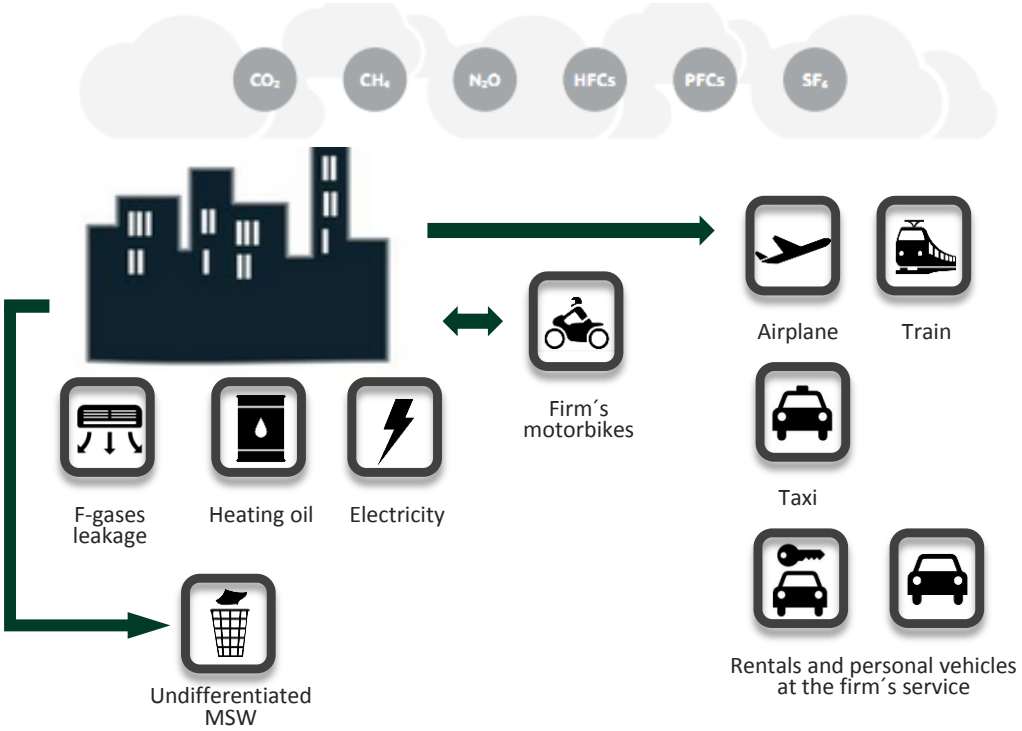


Fig. 3 – VdA's carbon footprint: activities and emissions sources

Direct Emissions

Direct emissions are emissions occurring from sources owned or controlled by VdA.

Such is the case of diesel combustion in the firm's premises' heating boilers, of gas leakage from air conditioning and refrigerators equipment, or petrol consumption by the firm's motorbikes.

Indirect Emissions

Indirect emissions are also emissions occurring from VdA's activity, but from sources owned by third parties.

Such is the case of electricity consumption at the offices (whose GHG emissions occur at the power plants), of aviation or any other transports' fuels consumption regarding business travelling (except for the firm's motorbikes), or non recycled waste sent to landfills, which generate methane emissions.

VdA’S CARBON FOOTPRINT 2014

Consumption

In 2014, VdA's resource consumption levels registered a favorable evolution in what concerns electricity and residues. Regarding business travel, the evolution was less favorable.

Electricity consumption in the offices – the major source of individual emissions – has been reduced by 4% (-4% in Lisbon and – 14% in Oporto). The major reduction resulted from the general consumption in the Lisbon office, which amounted to 60% of the total electrical consumption, and is the building´s management responsibility. The consumption per floor, controlled by VdA, registered a 5% increase.

Mobility registered a less positive evolution, with an increase in the use of all means of transportation, with the exception of car rentals. Globally, the distance travelled increased by 14% in comparison with 2013.

The production of **waste** registered a global reduction, 20% less than in 2013. Almost 60% of the produced waste were separated and recycled, a recycling rate similar to 2013.

Tab. 1 – VdA´s Carbon Footprint: resource consumption 2011-2014

	Unit	2011	2012	2013	2014	Δ '13-14 (%)
Energy	**kWh**	**1.377.137**	**1.263.980**	**1.185.500**	**1.141.406**	**-4%**
Electricity	kWh	1.377.137	1.263.980	1.185.500	1.141.406	-4%
Transport	**km**	**1.517.335**	**1.568.464**	**1.347.003**	**1.535.795**	**14%**
Airplane	km	1.358.044	1.396.324	1.197.514	1.364.356	14%
Train	km	34.545	41.035	34.145	42.984	26%
Taxi	km	25.455	16.984	13.285	16.625	25%
Rentals	km	28.758	31.364	21.557	11.035	-49%
Personal vehicles at the firm´s service	km	70.532	82.757	80.501	100.795	25%
Residues	**kg**	**34.769**	**34.963**	**36.859**	**29.484**	**-20%**
Recycling	kg	18.794	20.554	22.579	17.080	-24%
Undifferentiated waste processment	kg	15.975	14.409	14.280	12.404	-13%

Detailed information about operational consumption data is displayed in Attachment II.

Emissions

In 2014, VdA´s carbon footprint amounted to 494 t CO_2e (tons of carbon dioxide equivalent), a decrease of 103t (-17%) in comparison with 2013. Emissions per employee ratio registered a similar reduction (-17%), as a result of a slight decrease in the total number of employees (-1%).

Tab. 2 – VdA´s Carbon Footprint : global results 2011-2014

	2011	2012	2013	2014	?'13-'14 (%)
Nº of employees	228	228	244	241	-1%
Gross area of Office (m2)	5.871	5.871	5.928	5.928	0%
Total emissions (t CO2e)	697	763	597	494	-17%
Emissions per staff member (t CO2e/member.)	3,06	3,35	2,45	2,05	-16%

Efficient electricity consumption (-4%) and a decrease in the carbon content of the consumed electricity (-24%) contributed to the reduction of VdA´s carbon footprint. The weather conditions felt throughout the year in Portugal, favored the production of renewable electricity (wind and hydropower), to the detriment of fossil fuels.

Tab. 3 – VdA´s Carbon Footprint: emissions per source 2011-2014

	Unit	2011	2012	2013	2014	Δ'13-'14 (%)
Scope 1	**t CO2e**	**49**	**34**	**33**	**24**	**-27%**
Facilities fuel (heating)	t CO2e	43	28	26	17	-32%
Firm´s Fleet (motos)	t CO2e	6	6	7	7	-11%
Use of F-gases	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Scope 2	**t CO2e**	**472**	**550**	**421**	**308**	**-27%**
Electricity	t CO2e	472	550	421	308	-27%
Scope 3	**t CO2e**	**177**	**178**	**143**	**162**	**13%**
Off-site meetings	t CO2e	164	171	134	154	15%
Airplane	t CO2e	140	146	112	130	16%
Train	t CO2e	1	1	1	1	30%
Taxi	t CO2e	5	3	2	3	25%
Rentals	t CO2e	5	6	4	2	-49%
Personal vehicles at the firm´s service	t CO2e	13	15	14	18	25%
Residue Treatment	t CO2e	13	7	9	8	-13%
TOTAL	**t CO2e**	**697**	**763**	**597**	**494**	**-17%**

Breakdown by emission source

The breakdown of emissions by source maintained the same pattern as registered in preceding years.

Electricity consumption in offices was still the predominant source, albeit its favorable reduction, from 71% of total emissions to 62%. Business travel evolved in the opposite direction, having registered an increase of its total weight from 23% to 31%. Travelling by airplane was the largest source for business travel emissions (84%). Use of personal car at the firm's service was the second largest cause for emissions in this category (12%). Train trips, taxis and rentals contributed with only 3%.

The emissions related to waste treatment amounted to 1,5% of the total of the footprint.

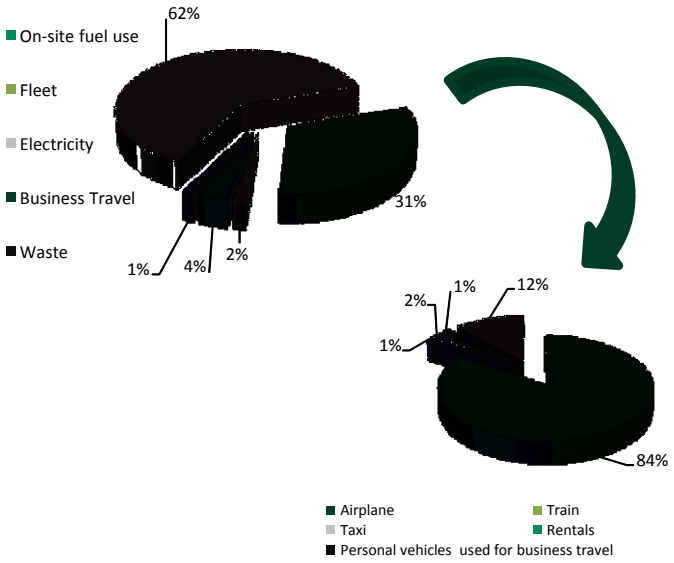
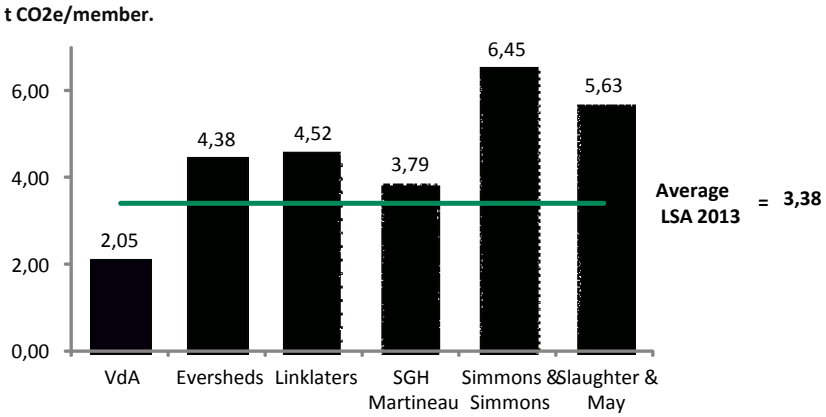


Fig. 4 – VdA´s Carbon Footprint 2014: breakdown by emission source.

Benchmark analysis

In 2014, VdA´s emissions per employee were lower than the average values reported by the Legal Sector Alliance's members.

Despite LSA´s members average values amelioration, VdA´s ratio still outperforms its peers.



Note: At the time of writing, 2014 LSA data was not available. Peer comparison uses the latest available information, relative to 2013.

Fig. 6 – VdA's carbon footprint 2014: peer comparison.

As regards sources breakdown, VdA's results are in line with the sector: electricity consumption represents the major contribution, followed by air travel. Data reported by LSA (referring mainly to firms in the UK) differs only on the weight given to on-site combustion, justified by accrued heating needs.

ADDITIONAL INFORMATION

Sources of electricity consumed

Electricity sources, and therefore its carbon content, depend on the supplier and vary according to the way each one produces and/or acquires the electricity provided to the final client. In Portugal, electricity sources are highly dependent on the meteorological conditions, which determine the amount of energy produced in hydro and wind power plants. This is a relevant variable in determining VdA´s carbon footprint, since office electricity consumption is responsible for an average of 60% to 70% of the emissions.

In 2014, 54% of the overall electricity consumed by VdA's offices was produced from renewable sources (42% in 2013). The electricity produced in hydroelectric plants totaled 41% and the wind power production 7%. The electricity related emissions registered a 27% decrease, resulting from both consumption reduction (-4%) and electricity carbon content reduction (-24%), with relevant impact in the footprint.

The firm's electricity supplier in Lisbon and Oporto is Iberdrola Generación. In its website (www.erse.pt), the Regulator for Energy Services (Entidade Reguladora dos Serviços Energéticos - ERSE) provides access to up to date information on electricity sources and emissions concerning each supplier in the Portuguese market.

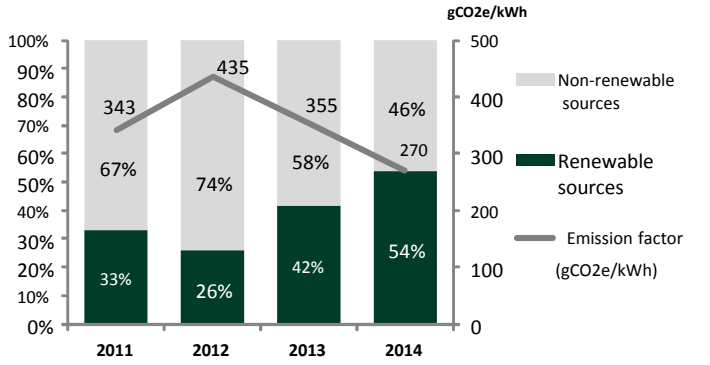


Fig. 7 – VdA's electricity source and carbon content in 2014.

Business Travel

By analyzing the data collected it was possible to determine a set of indicators regarding business travel at the firm.

Tab. 4 – Business travel 2011-2014: main indicators.

	Nº of trips				Average distance (km/trip)			
	2011	2012	2013	2014	2011	2012	2013	2014
Airplane	426	396	393	431	3.188	3.526	3.047	3.166
Short-distance	10	18	11	29	300	317	374	348
Medium-distance	322	262	289	295	1.780	1.693	1.763	1.689
Long-distance	94	116	93	107	8.317	8.165	7.354	8.001
Train	77	97	116	174	449	423	294	247
Taxi	1.177	1.412	1.174	1.263	22	12	11	13
Rentals	74	72	43	34	389	436	501	325
Personal vehicles	252	333	299	292	280	249	269	345

Note: Airplane trips are considered as single trips (one-way or return).

In 2014, the number of trips increased for all means of transportation, except for car rental, which continued to decrease (-21% in comparison with 2014) and for the use of personal vehicles (-2%).

Distance travelled by airplane increased significantly., as a result of the increase both in the number of trips and in the average distance travelled. Resort to train travel for national trips maintained an upward trend (+26% km travelled).

Carbon offsetting

At the end of 2014, VdA renewed the protocol with the National Tapada of Mafra, maintaining its commitment to plant 500 pine trees on an annual basis in a 2 ha area.

This initiative's estimated capacity for carbon capture is of 60 tons of CO_2.

Paper Consumption

Use of paper is a significant environmental impact of law firms´ activity. As such, the Legal Sector Alliance recommends each firm to take action in monitoring and reducing its use.

Through VdA´s Green Barometer – an eco-efficiency trimestral monitoring internal system – the firm began, in 2013, to monitor the use of paper in its offices and started an employee awareness campaign to reduce consumption. In 2014, all paper consumption indicators registered a positive evolution, around 10%. The number of paper sheets used per employee diminished from 13 100 to 11 850.

Tab. 5 – VdA´s paper consumption: main indicators 2013-2014

	2013	2014	?'13-'14 (%)
Total consumption			
kg	13.999	12.710	-9%
# sheets	3.197.862	2.852.985	-11%
Consumption per employee			
kg/employee	57	53	-8%
# sheets/employee	13.106	11.838	-10%

Notes:
1) Includes writing and printing paper reams, notebooks, envelopes, business cards and hardcovers, which represent more than 95% (% w/w) of the paper products purchased by VdA.
2) The number of sheets corresponds to the total equivalent of A4 sheets.

Opportunities for improvement

Consumption and Emissions Reduction

The 2014 carbon footprint results show the implementation of efficient practices since the end of 2012. These were focused on behavioral change and initially targeted the decrease of the offices´ electricity consumption.

Simultaneously, with the implementation of the Green Barometer, the firm started to report internally, on a regular basis, the quantified results of the adopted practices, thus contributing to its widespread acceptance. The next steps, will include a regular disclosure of the Green Barometer, the development of action-oriented activities, to boost the areas with a less positive performance.

Business travel must be looked at attentively, due to its recent increase. Despite the ongoing incentives to travel by train, implemented with some success in 2014, it is important to evaluate the possibility of replacing some of the business travels by phone or video conferences, thus reducing car travels.

Calculating VdA´s carbon footprint

A part of the improvement targets for the calculus of VdA´s carbon footprint, identified in previous reports, have been accomplished.

Areas for further improvement are:

- To request Oporto´s building management for information on electricity and fuel consumption in the common areas;
- To obtain data on the use of fluorinated gases;
- To obtain more accurate data on the weight of waste produced in each office.

Regarding the expansion of the carbon footprint accounting scope employee commuting (house-work travelling) might be considered, in line with the LSA's guidelines on the subject.

ATTACHMENTS

Accounting methodology

VdA's carbon footprint was calculated according to The Legal Sector Alliance Carbon Footprint Protocol's guidelines.

This protocol adapts the guidelines defined by The Greenhouse Gas Protocol to the legal sector and is the international methodological reference to calculate carbon emissions in this sector.

Emissions scope

VdA's carbon emissions accounting only considered the firm's activity in Portugal (at Lisbon and Oporto´s offices). No activities or premises existing under the scope of VdAtlas international platform were considered, as both, the former and the latter, are under the responsibility of the local partners.

All direct (scope 1) and indirect (scope 2 and scope 3) sources of emissions indicated by the LSA Carbon Footprint Protocol have been accounted for.

In scope 3 we further added emissions coming from mixed waste disposal, as the LSA stresses the importance of including this source of emission when calculating the carbon footprint and reference data for Portugal is available.

Also in line with the LSA Carbon Footprint Protocol's recommendations, we did not take into account emissions coming from any products or services produced or taken forth by third parties (except for travelling services), as these emissions are considered to be under the responsibility of the respective sectors of activity.

Additional information on paper consumption is presented, in line with LSA recommendation. However, paper life cycle emissions are not included in the carbon footprint calculation.

Calculation parameters

The calculation considered all of the six greenhouse gases covered by the Kyoto Protocol and the results are presented in CO2 equivalent, making use of the Global Warming Potential (GWP) values published by the Intergovernmental Panel on Climate Change (IPCC - Second Assessment Report).

Emissions have been quantified on the basis of representative data of VdA's activity in 2014 (please refer to the following section), to which the emission factors as defined by the IPCC's were added, although having been adapted to the Portuguese reality according to data published by the national official entities.

The following criteria were applied:

- **Electricity** – annual emission factors, regarding 2014, as published by ERSE (Regulator for Energy Services) for each supplier, applied to the amount of energy supplied;
- **Air travelling** – differentiated emission factors per passenger.km for each type of journey (short, medium and long haul). In line with LSA Protocol's guidelines, Radiative Forcing Index (RFI) was not applied.
- **Train travelling** – emission factor representing the Portuguese average rail network;
- **Rent a car and own car travelling** – emission factor representing the average light passenger vehicle (petrol or diesel) on the road in Portugal;
- **Waste treatment** – emission factor reflecting emissions occurring along the total period for waste degradation in a landfill (30 years). Emissions regarding recycling and energy recovery are considered void, as they are allocated to the respective sector of activity and not to the waste treatment sector.

Data collection: procedures and assumptions

Data regarding VdA's activity in 2014 has been obtained in the following manner:

- **On-site fuel consumption –** This is calculated from the costs charged by the condominium on the basis of the occupied area and on the average annual price of diesel for heating in 2014 (source: Directorate General for Energy and Geology).

- **Fuel consumption by the firm´s vehicles -** Fuel consumption by the firm's vehicles – This is calculated from the accounting system register and from the average annual price of fuel in 2014 (source: Directorate General for Energy and Geology).

  Only fuel consumption by the firm's motorbikes was considered (deliveries). No fuel supply for any of the partners' vehicles was taken into account.

- **Electricity consumption at the firm´s premises -** Data obtained from the electricity bills issued by the condominium (Lisbon and Oporto offices).

  In the Lisbon office's premises, consumption by floor is included, as invoices are issued on monthly readings of individual metering systems. Consumption in common areas is also included (lounges, lifts and cold air system) as invoices issued by the condominium take into account the area in use by the firm.

- **Air Travelling -** Travelling register. Distances calculated on the point of origin-point of destination pair approach, accrued of the adjustment factor (non direct routes and waiting for landing).

- **Train Travelling -** Calculated from the accounting system register, identifying the point of origin– point of destination pairs by way of identifying the usual cost of train trips between the main train stations (Lisbon, Oporto, Coimbra, Faro and Aveiro).

- **Travelling by Taxi -** Calculated from the accounting system register and on the average price of travelling by taxi per km, considering taxi pricing in 2014 regarding travelling in a light passenger four-seat car during the day in the city, with no supplement charges. (source: Directorate General for Economic Activities and Antral).

- **Rent-a-car travelling -** Obtained from the accounting system register and from the km registered at the service's provider invoices. No fuel supply was taken into account in order to avoid double accounting.

- **Business travel in personal car -** Calculated from the accounting system register and the fixed value payable per km. No fuel supply was taken into account in order to avoid double accounting

- **Waste production -** Calculation based on daily records of the number of waste bags per waste type and an average weight per bag ratio.

Data collection limitations

It was not possible to collect data on the following subjects regarding the year 2014:

- Energy consumption (fuel and electricity) in common areas at the Oporto office;
- F-gases use in air-conditioning and refrigerating equipment;
- Distance travelled by rental cars outside of Portugal.

Operational data used to calculate VdA's carbon footprint for 2011-2014

		2011	2012		2013		2014	
Scope 1	**Unit**			**Δ '11-12 (%)**		**Δ '12-13 (%)**		**Δ '13-14 (%)**
Office fuel consumption	**l**	**15.624**	**10.208**		**9.760**		**6.608**	
Heating diesel	l	15.624	10.208	-35%	9.760	-4%	6.608	-32%
Own fleet fuel consumption	**l**	**2.393**	**2.424**		**3.081**		**2.747**	
Gasoline - motorbikes	l	2.393	2.424	1%	3.081	27%	2.747	-11%
Use of f-gases on office equipment	**kg**							
F-gases leakeage	kg	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Scope 2								
Office electricity consumption	**kWh**	**1.377.137**	**1.263.980**		**1.185.500**		**1.141.406**	
Electricity	kWh	1.377.137	1.263.980	-8%	1.185.500	-6%	1.141.406	-4%
Scope 3								
Business travel in third party vehicles								
Airplane	pkm	1.358.044	1.396.324	3%	1.197.514	-14%	1.364.356	14%
Short haul	pkm	2.998	5.709	90%	4.111	-28%	10.081	145%
Medium haul	pkm	573.255	443.487	-23%	509.478	15%	498.213	-2%
Long haul	pkm	781.792	947.127	21%	683.925	-28%	856.062	25%
Train	pkm	34.545	41.035	19%	34.145	-17%	42.984	26%
Taxi	vkm	25.455	16.984	-33%	13.285	-22%	16.625	25%
Rent-a-Car	vkm	28.758	31.364	9%	21.557	-31%	11.035	-49%
Own car on firm's service	vkm	70.532	82.757	17%	80.501	-3%	100.795	25%
Office waste production		**34.769**	**34.963**	**1%**	**36.859**	**5%**	**29.484**	**-20%**
Recycling	kg	18.794	20.554	9%	22.579	10%	17.080	-24%
Mixed waste	kg	15.975	14.409	-10%	14.280	-1%	12.404	-13%

Notes:
Fuel consumption at the firm's premises does not include the Oporto office.
Fuel consumption by the firm's vehicles does not include the partners' vehicles.
F-gases leakage: data not available.
Electricity: Total consumption (floors + common areas). Does not include Oporto's office's common areas.
Rent-a-car: Does not include distance travelled outside of Portugal
Waste: Estimated annual production per employee in 2011 and 2012. Since 2013, data is based on daily registers of number of waste bags and an average ratio kg/bag.

Maria João Gaspar – Sustainability Consultancy
mjoaogaspar@gmail.com | Tel: +351 92 509 73 35

April 2015