



# NEPCon Carbon Footprint Accounting 2017



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## Summary

NEPCon has decided to measure and manage the carbon footprint resulting from its internal operations and the greenhouse gas accounting has been made for reporting years 2016 and 2017.

In 2016 the total net carbon footprint was 387,3 tCO<sub>2</sub>e and the relative emissions 3,49 tCO<sub>2</sub>e/full-time employee. In 2017 the total net carbon footprint was 498,3 tCO<sub>2</sub>e and the relative emissions 3.83 tCO<sub>2</sub>e/full-time employee. The growth of total net carbon footprint is related to the increased business activity and the number of employees, and also to the better quality of activity data in 2017.

92% of NEPCon's total carbon footprint in 2017 was related to transportation. In more specific - 81% from total emissions came from business travel, 5% from commuting and 6% from company car usage.

The method of future carbon footprint accounting should be specified based on the interest of the organisation, since current data collections method for business travel information is a subject of several accounting errors. If the interest is only the emissions, then a sample based method shall be implemented, in case detailed business travel data is needed also for other purposes than carbon footprint calculations, fully automated data collections system shall be created and implemented.

## 1. Methodology

Carbon footprint accounting is based on NEPCon Carbon Footprint Management Standard (2013 version 1,0).

Additional documents were implemented during the accounting process:

- Corporate Value Chain (Scope 3) Accounting and Reporting Standard
- Technical Guidance for Calculating Scope 3 Emissions (2013 version 1.0)
- 2017 Government GHG Conversion Factors for Company Reporting (UK, Department of Business, Energy and Industrial Strategy)

### 1.1 Organisational and operational boundaries

The accounting covers corporate carbon footprint of legal entities of NEPCon during the reporting year 01.01.2017 – 31.12.2017 (Table 1):

Legal Entity	Main Office	Region of activity	No of employees 2017
Nature Ecology and People Consult Sdn Bhd	Kuala Lumpur, Malaysia	Asia Pacific	5
Nature, Ecology and People Consult Sweden AB	No office	Sweden	1
NEPCon	Copenhagen, Denmark	Global	26
NEPCon Bulgaria EOOD	Sofia, Bulgaria	Bulgaria	3
NEPCon Certificering ApS	Aarhus, Denmark	Denmark	8
NEPCon Group s.r.o	Brno, Czech Republic	Czech Republic	2
NEPCon LT UAB	Vilnius, Lithuania	Lithuania, Belarus, Ukraine	14
NEPCon OOO	No office	Russia	12
NEPCon OÜ	Tartu, Estonia	Estonia	18
NEPCon SIA	Riga, Latvia	Latvia	6
NEPCon Sp. z o.o.	Krakow, Poland	Belgium, Germany, Poland, Romania	18
NEPCon Spain S.L.	Madrid, Spain	Spain	6
NEPCon UK Ltd	London, UK	UK	7
NEPCon Vietnam Ltd	Ho Chi Ming City, Vietnam	Vietnam	4
<b>TOTAL</b>			<b>130</b>

*Table 1 Legal entities of NEPCon covered by carbon footprint accounting*

Accounting covers following organisational activities:

- Emissions from business travel of NEPCon employees, board members, external auditors and consultants
- Emissions from NEPCon employees commuting to work
- Emissions from hotel accommodation due to business travel
- Emissions from electricity usage in offices owned or controlled by NEPCon and from home offices used by NEPCon employees

Detailed activities are listed in Table 2

Activity	Description
Transportation in vehicles owned or controlled by NEPCon	Car travel in 4 NEPCon offices
Electricity	Electricity usage in 8 NEPCon offices and home offices
Business travel (employees, board members, external consultants)	Air travel short-haul/Economy class
	Air travel long-haul/Economy class
	Rail travel (train travel and city train)
	Bus travel (long-distance bus and city bus)
	Metro travel
	Tram travel
	Ferry travel
	Taxi travel
	Employee owned car travel
	Rental car travel
Commuting (employees)	Hotel accommodation due to business travel
	Car travel
	Car sharing
	Rail travel
	Bus travel
	Other public transport (PT) travel
	Motorbike travel

Table 2 NEPCon's activities covered by carbon footprint accounting

Three organisational activities were excluded from current accounting due to lack of relevance:

Activity	Reason for excluding
Product transportation by third parties	NEPCon is not producing, delivering or selling any kind of products
Extraction, production, transportation and storage of goods and services purchased or acquired	NEPCon is not producing, delivering or selling any kind of products
Downstream transportation and distribution of products sold by the reporting company	NEPCon is not producing, delivering or selling any kind of products

## 1.2 Emission sources and activity data

Identifying emissions associated with NEPCon's operations, categorisation to direct and indirect emissions was applied and following definitions were used:

**Direct GHG emissions** – emissions from sources that are owned or controlled by the reporting company:

SCOPE 1	emissions from operations that are owned or controlled by the reporting company
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**Indirect GHG emissions** – emissions that are a consequence of the activities of the reporting company, but occur at sources owned or controlled by another company:

SCOPE 2	emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company
SCOPE 3	all indirect emissions (not include in Scope 2) that occur in the value chain of the reporting company, including upstream emissions

Greenhouse gases can be measured by recording emissions at source by continuous emissions monitoring or by estimating the amount emitted using activity data (such as the amount of fuel used) and applying relevant conversion factors. Table 3 lists the activity data used in current carbon footprint accounting. It is primary data received from following sources:

- NEPCon employees' expense reports registered in Salesforce – travel tickets and employee own car usage for work purposes
- Regional Office reports – data provided by regional office managers about company car usage and consumption of electricity
- Commuting survey – data from a questionnaire about employees commuting habits. The survey was filled twice, in spring and autumn 2017 and covered employee's weekly travel to work. Based on the survey data, yearly commuting data was estimated.

Emission type	Scope	Definition (GHG Protocol)	Category (GHG Protocol)	Emission source (NEPCon)	Unit	Activity data source (NEPCon)
<b>Direct emission</b>	Scope 1	Emissions from operations that are owned or controlled by the reporting company	Transportation of products, materials, waste and employees	Transportation in vehicles owned by NEPCon	km	Regional Offices reports
<b>Indirect emission</b>	Scope 2	Emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company	Imports of electricity, heat and steam	Electricity	kWh	Regional Offices reports
<b>Indirect emission</b>	Scope 3	All indirect emissions that occur in the value chain of the reporting company	Business travel - transportation of employees for business-related activities in vehicles owned or operated by third parties All indirect emissions that occur in the value chain of the reporting company	Business travel/Air travel long haul	passenger km	Employee expense report in Salesforce
				Business travel/Air travel short haul	passenger km	Employee expense report in Salesforce
				Business travel/Rail travel	passenger km	Employee expense report in Salesforce
				Business travel/City train travel	passenger km	Employee expense report in Salesforce
				Business travel/Bus travel	passenger km	Employee expense report in Salesforce
				Business travel/City bus travel	passenger km	Employee expense report in Salesforce
				Business travel/Metro travel	passenger km	Employee expense report in Salesforce
				Business travel/Ferry travel	passenger km	Employee expense report in Salesforce
				Business travel/Taxi travel	passenger km	Employee expense report in Salesforce
				Business travel/Rental car	km	Employee expense report in Salesforce
			Business travel/Employee owned car	km	Employee expense report in Salesforce	
			Hotel accommodation	room/night	Employee expense report in Salesforce	
			Employee commuting - transportation of employees between their homes and their worksites	Commuting/Car travel	km	Commuting survey
				Commuting/Car sharing	km	Commuting survey
				Commuting/Bus travel	passenger km	Commuting survey
Commuting/Rail travel	passenger km	Commuting survey				
Commuting/Other PT	passenger.km	Commuting survey				
Commuting/Moped, motorcycle	km	Commuting survey				

Table 3 Activity data, units and data sources

The calculations were performed using spreadsheet system, where an inventory of GHG emissions by source was calculated by applying the emission factors to relevant activity data and aggregating the results to calculate NEPCon’s absolute carbon footprint.

Notes for calculations in different activity fields are listed on Table 4.

Activity	Notes for calculations
<b>Business travel</b>	Following distances were applied to trips where origin and destination was not indicated: <ul style="list-style-type: none"> <li>- Taxi trip – 5 km</li> <li>- City bus trip – 10 km</li> <li>- City train trip - 20 km</li> <li>- Metro trip - 20 km</li> </ul>
<b>Hotel accommodation</b>	Average number of nights was estimated from a sample and applied to the number of employees who used hotel accommodation related to business travel in 2017.
<b>Employee commuting</b>	Data from 2 surveys was used to estimate the yearly distances travelled and modal split (results were averaged).  224 annual working days (working days in Denmark) was used to estimate annual values for distances.
<b>Electricity consumption</b>	Electricity consumption data was collected from 6 regional offices, in other offices the data was not available or there is no office in place (Sweden, Russia). Based on reported data, an average yearly consumption was found per employee and applied to estimate the consumption in those offices where data was not available.  The estimation of electricity consumption included employees working from home in all regional offices, assuming that their electricity consumption is the same as for employees working in NEPCon offices. The share of employees working in home offices was derived from the commuting survey.

*Table 4 Notes for calculations*

According to NEPCon Carbon Footprint Management Standard p 2.1.8, emissions are considered unfeasible to quantify if they do not account more than 5% of the total anticipated carbon footprint. Based on 2016 carbon footprint accounting, following activity data were left out from 2017 accounting: heating, water supply, water treatment, waste generation and paper purchases. To compensate excluded emissions 5% buffer from total emissions was created and implemented.

### 1.3 GHGs applied

Values for the non-carbon dioxide (CO<sub>2</sub>) GHG, methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), are presented as CO<sub>2</sub> equivalents (CO<sub>2</sub>e) in current accounting. UK “Government Greenhouse Gas (GHG) Conversion Factors for Company Reporting” was used as the best available public data source for conversion factors applied in current accounting.

### 1.4 Emission factors

Emission factors are calculated ratios relating GHG emissions to a measure of activity at an emission source and they are used to convert activity data to carbon emissions. Emission factors used in current carbon footprint accounting and sources of data are in Table 5.

Scope	Emission source	Type	Unit	Emission factor kgCO <sub>2</sub> e/ unit	Data source
<b>Scope 1</b>	Transportation in vehicles owned or controlled by NEPCo	Average car/ petrol	km	0.18568	Car manufacturers data
		Average car/ diesel	km	0.17887	Car manufacturers data
		Average car/ hybrid	km	0.11792	Car manufacturers data
<b>Scope 2</b>	Electricity	Bulgaria, consumption	kWh	0.59100	DEFRA2014 <sup>1</sup> /Overseas electricity
		Czech, consumption	kWh	0.59100	DEFRA2014/ Overseas electricity
		Denmark, consumption	kWh	0.31500	DEFRA2014/ Overseas electricity
		Estonia, consumption	kWh	1.08600	DEFRA2014/ Overseas electricity
		Latvia, consumption	kWh	0.13300	DEFRA2014/ Overseas electricity
		Lithuania, consumption	kWh	0.27000	DEFRA2014/ Overseas electricity
		Malaysia, consumption	kWh	0.68800	DEFRA2014/ Overseas electricity
		Poland, consumption	kWh	0.78000	DEFRA2014/ Overseas electricity
		Romania, consumption	kWh	0.49900	DEFRA2014/ Overseas electricity
		Russia, consumption	kWh	0.27000	DEFRA2014/ Overseas electricity
		Spain, consumption	kWh	0.29100	DEFRA2014/ Overseas electricity
		Sweden, consumption	kWh	0.01700	DEFRA2014/ Overseas electricity
		UK, consumption	kWh	0.49426	DEFRA2017
Vietnam, consumption	kWh	0.67400	DEFRA2014/ Overseas electricity		
<b>Scope 3</b>	Air travel	Short-haul/Economy class	passengerkm	0.15845	DEFRA2017/Business travel air
		Long-haul/Economy class	passengerkm	0.15119	DEFRA2017/Business travel air
	Rail travel	National rail	passengerkm	0.04678	DEFRA2017/Business travel land
	Bus travel	Coach	passengerkm	0.02780	DEFRA2017/Business travel land
	Tram travel	Light rail and tram	passengerkm	0.04446	DEFRA2017/Business travel land
	Ferry travel	Car passenger	passengerkm	0.13325	DEFRA2017/Business travel sea
	Taxi travel	Regular Taxi	passengerkm	0.15617	DEFRA2017/Business travel land
	Car travel	Average car/ unknown fuel type	km	0.18242	DEFAR2017/Business travel land

Table 5 Emission factors and data sources

<sup>1</sup> DEFRA is not providing overseas CO<sub>2</sub> emission factors for electricity from 2015 onward.

## 2. Carbon footprint

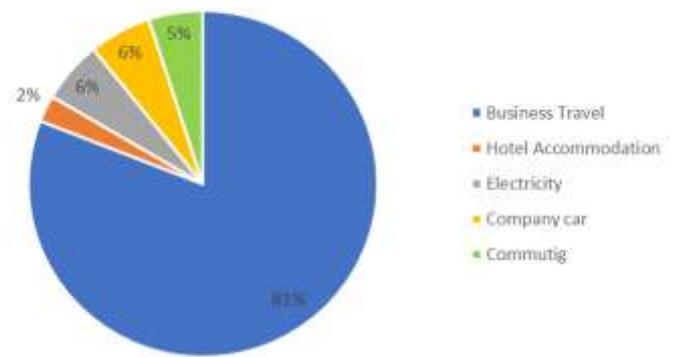
### 2.1 Total net emissions

Total carbon footprint from NEPCo internal operations in 2017 was **498.29 tCO<sub>2</sub>e** (Table 6), the relative emissions was **3.83 tCO<sub>2</sub>e per full-time employee**.

Scope	Category	Emission source	Unit	Activity data	Emission (tCO <sub>2</sub> e)
<b>Scope 1</b>	Transportation of products, materials, waste and employees	Transportation in vehicles owned or controlled by NEPCo (diesel)	km	156 956	20.53
		Transportation in vehicles owned or controlled by NEPCo (petrol)		52 864	6.90
		<b>Transportation of employees TOTAL</b>			
<b>Scope 2</b>	Imports of electricity, heat and steam	Electricity	kWh	63 580	27.52
		<b>Imports of electricity TOTAL</b>			
<b>Scope 3</b>	Business travel - transportation of employees for business-related activities in vehicles owned or operated by third parties	Business travel/Air travel long haul	passenger. km	1 037 486	156.86
		Business travel/Air travel short haul	passenger. km	968 191	153.41
		Business travel/Rail travel	passenger. km	262 929	12.30
		Business travel/City train travel	passenger. km	17 070	0.76
		Business travel/Bus travel	passenger. km	25 819	0.72
		Business travel/City bus travel	passenger. km	2 610	0.27
		Business travel/Metro travel	passenger. km	5 200	0.24
		Business travel/Tram travel	passenger. km	238	0,01
		Business travel/Ferry travel	passenger. km	4 647	0.62
		Business travel/Taxi travel	passenger. km	4 535	0.71
		Business travel/Employee owned car	km	309 905	56.53
		Business travel/Rental car	km	8 750	1.60
		Business travel/hotel accommodation	room/night	200	11.81
		<b>Business travel TOTAL</b>			
	Employee commuting - transportation of employees between their homes and their worksites	Commuting/Car travel petrol	km	63,602	11.81
		Commuting/Car travel diesel	km	47,143	8.43
		Commuting/Car travel hybrid	km	6,486	0.76
		Commuting/Carshare	passenger. km	4,157	0.76
		Commuting/Bus travel	passenger. km	7,482	0.21
		Commuting/Rail travel	passenger. km	32,839	1.54
Commuting/Other PT		passenger. km	1,990	0.09	
Commuting/Motorbike travel		passenger. km	1,631	0.19	
<b>Commuting TOTAL</b>				<b>23.79</b>	
<b>TOTAL</b>					<b>488.80</b>
<b>Buffer 5%</b>					<b>23.73</b>
<b>GRAND TOTAL</b>					<b>498.29</b>

Table 6 NEPCo's total emissions 2017

81% of the emissions was related to business travel, other sources had less than 10% share (Figure 1)



Total emissions by legal entities is on Figure 2.

Figure 1 Total carbon footprint by emission source

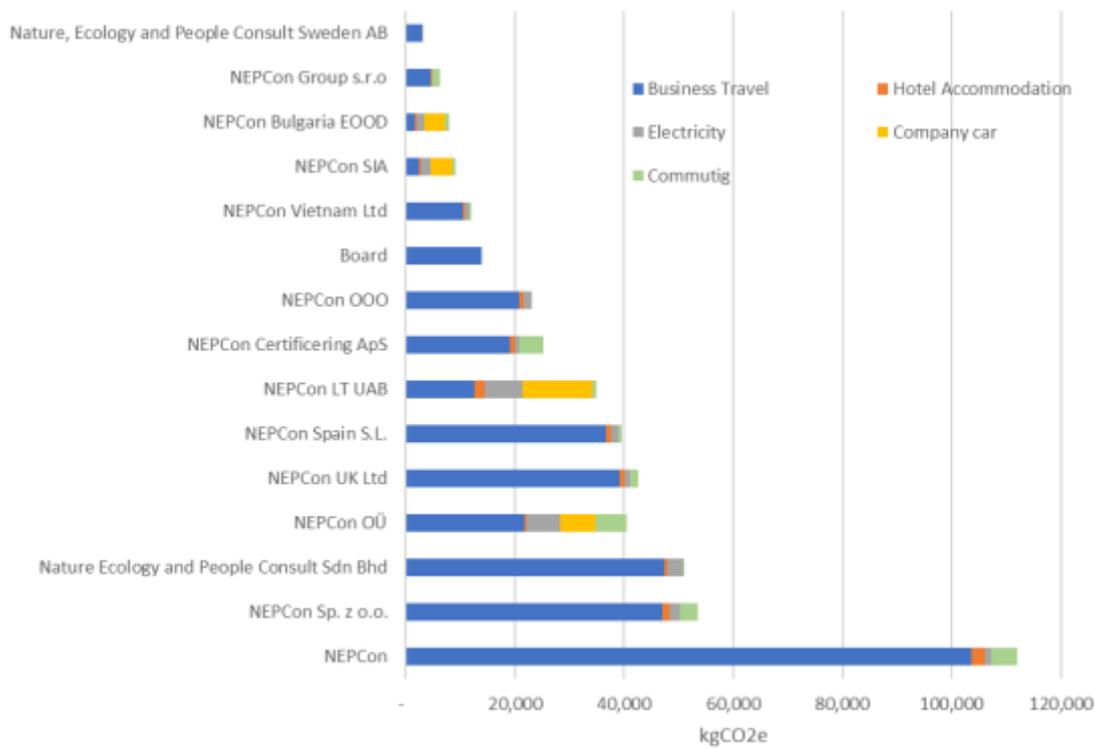


Figure 2 Total carbon footprint by emissions source and legal entity

On average, 74% of total emissions in legal entities was created by business travel, detailed data is on Figure 3. In 4 entities, where company cars were used, 36% on average of the emissions was related to company car usage.

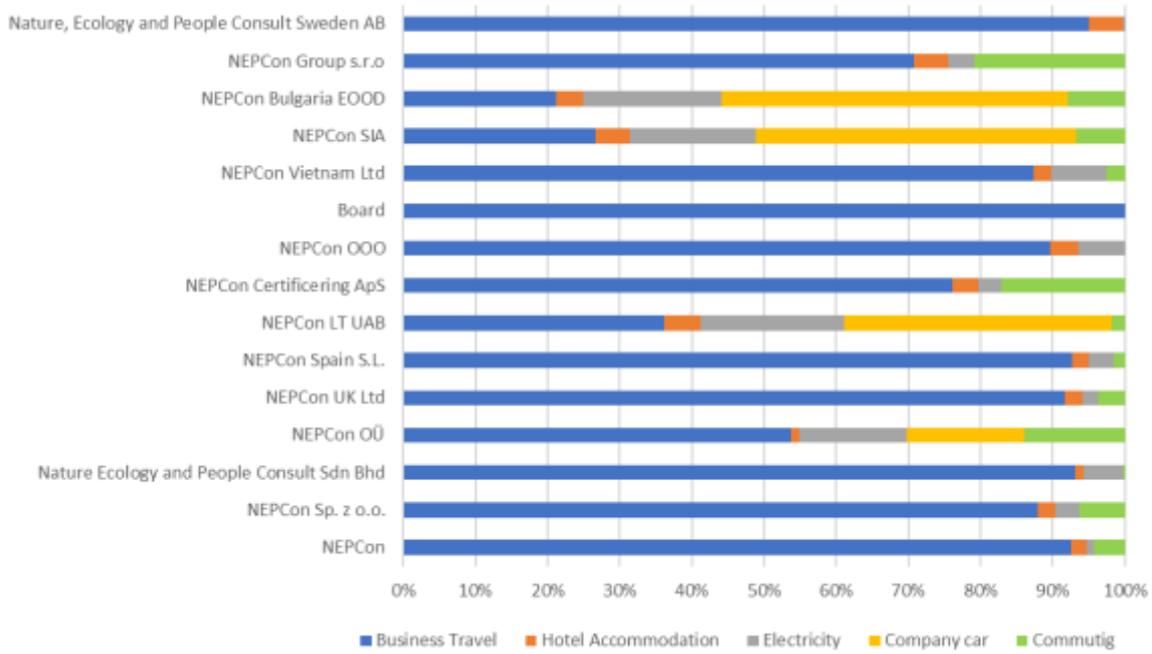


Figure 3 Total carbon footprint by emission source and legal entity (share)

Relative emissions by legal entity is on Figure 4.

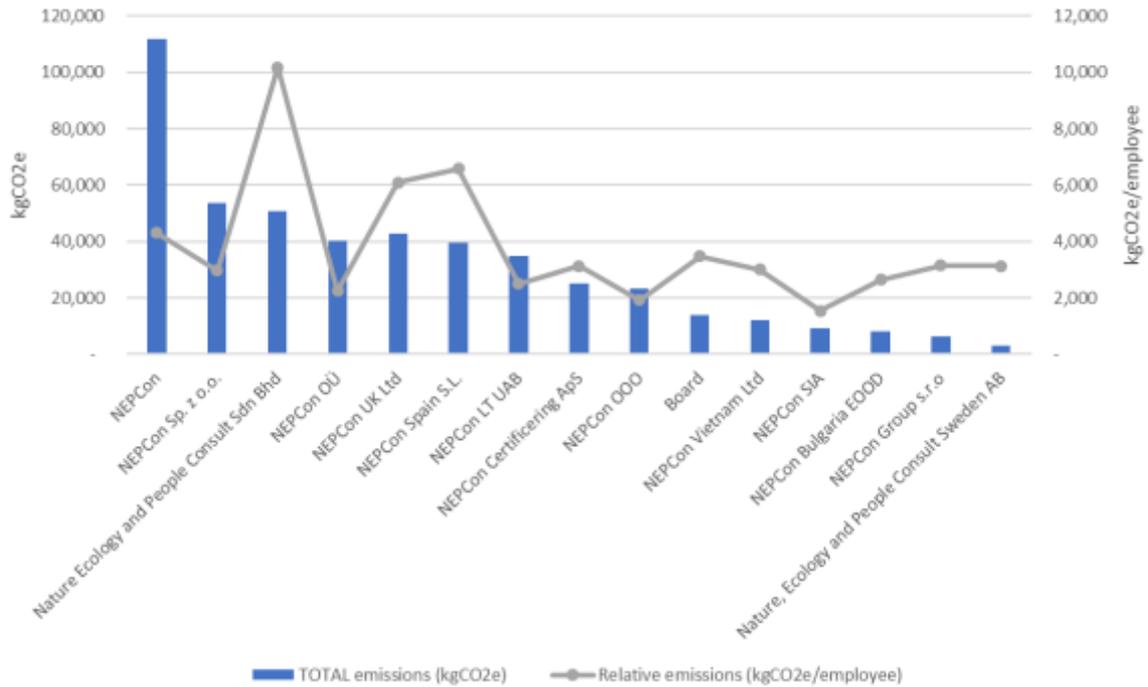


Figure 4 Total carbon footprint and relative carbon footprint by legal entity

High relative emissions in Malaysian, UK and Spain offices is related to high volume of business travel. In Malaysia, for example, where 5 employees are registered had business travel related emissions 9473 kg CO2e per employee.

## 2.2 Emissions in 2016 and 2017

NEPCon's total net carbon footprint **has grown by 28% from 387,29 tCO<sub>2</sub>e in 2016 to 498.29 tCO<sub>2</sub>e in 2017**. On one hand, the growth is related to the increase of employees, but on the other hand, the quality of activity data for 2017 was considerably better than for 2016 (mostly business travel expense reports, that were partly missing in 2016)

The relative emissions have **increased by 9% - from 3.49 tCO<sub>2</sub>/full-time employee to 3.83 tCO<sub>2</sub>e/full-time employee**. This change can also be related to the better quality of activity data in 2017.

Changes by type of activity data:

- **Company car usage in 2017** was almost on the same level as in 2016 - distances travelled increased by 5%. Still, the average usage of a car owned or leased by NPECon increased from 24 955 km/year in 2016 to 26 000 km/year in 2017, which indicates better usage of the assets.
- **Business travel increased by 29%** from 1.9 million km in 2016 to 2.6 million km in 2017.
- **Employee commuting in 2017 decreased by 29% compared to 2016**. This fact is clearly related to more accurate activity data – twice conducted surveys were used to estimate the commuting in 2017, which provided more accurate outcome than in 2016.
- **Electricity consumption in 2017 was approximately in the same level as in 2016**.
- **Excluded emissions** heat, water supply and treatment, paper purchases and waste generation accounted 3% of the total emissions of 2016 as 9.82 tCO<sub>2</sub>e. Applied buffer 5% of total emissions in 2017 is 23,73 tCO<sub>2</sub>e, which covers also all possible increases in excluded activity data.

### 3. Activity Data

#### 3.1 Business travel

2.6 million kilometers was traveled in 2017 for work purposes (excluding vehicles owned by NEPCo). More than 80% of business travel emissions were created from plane trips, while car travel created ca 15% , long distance train and bus travel ca 4% and other intercity transport modes 0,3% (Figure 5 and Table 7).

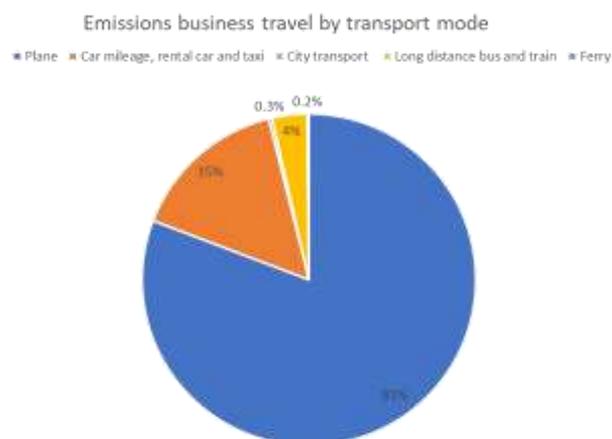


Figure 5 Business travel modal split (by distances travelled)

Table 7 Business travel distances and emissions by transport mode

Transport mode	Distance travelled (passenger km or km)	Emissions (kgCO <sub>2</sub> e)	Share (distance)	Share (emissions)
Bus	25,819	718	0.98%	0.19%
Car mileage	309,905	56,533	11.71%	14.72%
City Train	17,070	759	0.64%	0.20%
City Bus	2,610	268	0.10%	0.07%
Ferry	4,647	619	0.18%	0.16%
Metro	5,200	243	0.20%	0.06%
Plane, long haul	1,037,486	156,857	39.19%	40.85%
Plane, short haul	968,191	153,410	36.57%	39.95%
Rental Car	8,750	1,596	0.33%	0.42%
Taxi	4,535	708	0.17%	0.18%
Train	262,929	12,300	9.93%	3.20%
Tram	238	11	0.01%	0.00%
<b>TOTAL</b>	<b>2,647,381</b>	<b>384,022</b>	<b>100%</b>	<b>100%</b>

More than 26% of business travel emissions were created by employees of NEPCon F.M.B.A (Figure 6 and Table 8)

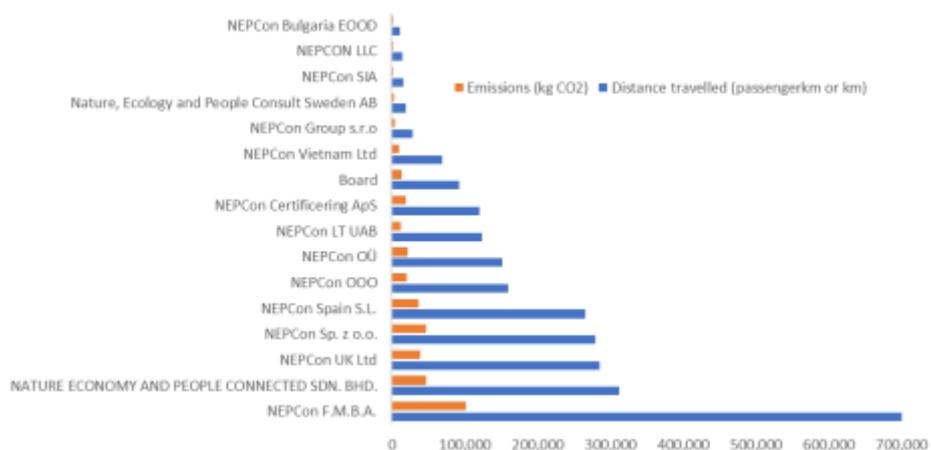


Figure 6 Business travel distances and emissions by legal entity

Legal entity	Distance travelled (passenger km or km)	Share (distance)	Emissions (kgCO2e)	Share (emissions)
Board	92,313	3.49%	13,930	3.63%
NATURE ECONOMY AND PEOPLE CONNECTED SDN. BHD.	312,108	11.79%	47,417	12.35%
Nature, Ecology and People Consult Sweden AB	19,711	0.74%	2,973	0.77%
NEPCon Bulgaria EOOD	10,675	0.40%	1,682	0.44%
NEPCon Certificering ApS	120,756	4.56%	19,127	4.98%
NEPCon F.M.B.A.	699,702	26.43%	101,434	26.41%
NEPCon Group s.r.o	28,400	1.07%	4,473	1.16%
NEPCON LLC	14,121	0.53%	2,089	0.54%
NEPCon LT UAB	123,643	4.67%	12,629	3.29%
NEPCon OOO	159,813	6.04%	20,720	5.40%
NEPCon OÜ	151,174	5.71%	21,748	5.66%
NEPCon SIA	15,717	0.59%	2,463	0.64%
NEPCon Sp. z o.o.	279,581	10.56%	47,048	12.25%
NEPCon Spain S.L.	265,249	10.02%	36,683	9.55%
NEPCon UK Ltd	284,950	10.76%	39,094	10.18%
NEPCon Vietnam Ltd	69,469	2.62%	10,512	2.74%
<b>TOTAL</b>	<b>2,647,381</b>	<b>100%</b>	<b>384,022</b>	<b>100%</b>

Table 8 Business travel distances and emissions by legal entity

Employees, whose primary country is Denmark created one third of all emissions related to business travel. It can be noticed, that in Russia, Belarus and Ukraine the ratio between distance travelled and the emissions is smaller than in other countries. This indicates, that lower emission transport modes have been used in these countries (Figure 7 and Table 9).

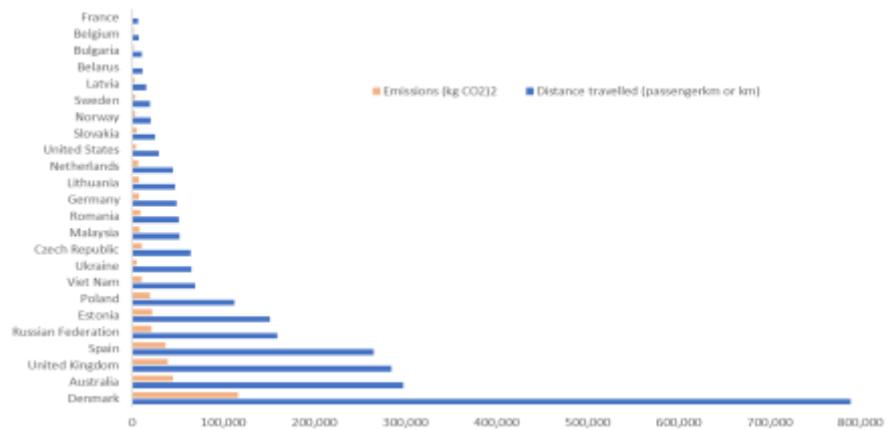


Figure 7 Business travel distances and emissions by country

Country	Distance travelled (passenger km or km)	Share (distance)	Emissions (kgCO2e)	Share (emissions)
Australia	297,701	11.25%	44,708	11.64%
Belarus	10,945	0.41%	1,143	0.30%
Belgium	7,317	0.28%	1,179	0.31%
Bulgaria	10,675	0.40%	1,682	0.44%
Czech Republic	64,208	2.43%	10,276	2.68%
Denmark	789,014	29.80%	116,634	30.37%
Estonia	151,174	5.71%	21,748	5.66%
France	6,193	0.23%	663	0.17%
Germany	48,618	1.84%	6,984	1.82%
Latvia	15,717	0.59%	2,463	0.64%
Lithuania	47,407	1.79%	7,071	1.84%
Malaysia	51,706	1.95%	8,010	2.09%
Netherlands	45,085	1.70%	6,643	1.73%
Norway	19,906	0.75%	3,029	0.79%
Poland	112,079	4.23%	19,570	5.10%
Romania	50,882	1.92%	8,973	2.34%
Russian Federation	159,813	6.04%	20,720	5.40%
Slovakia	24,876	0.94%	4,538	1.18%
Spain	265,249	10.02%	36,683	9.55%
Sweden	19,711	0.74%	2,973	0.77%
Ukraine	65,291	2.47%	4,415	1.15%
United Kingdom	284,950	10.76%	39,094	10.18%
United States	29,395	1.11%	4,311	1.12%
Viet Nam	69,469	2.62%	10,512	2.74%
<b>TOTAL</b>	<b>2,647,381</b>	<b>100%</b>	<b>384,022</b>	<b>100%</b>

Table 9 Business travel distances and emissions by country

On Figure 8, the usage of plane and other transport modes is analysed by employees' primary county (based on distance travelled). For employees in Australia, most of the business travel came from plane trips, while in Slovakia only other modes were used.

The usage of "other modes" is shown on Figure 9. In many countries car related business travel is dominating. On Figure 10 distances travelled by "other modes" are shown.

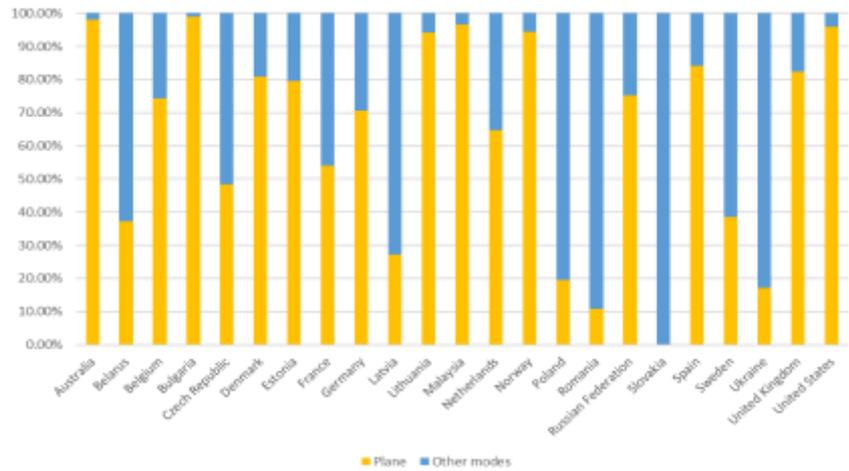


Figure 8 Business travel by plane and other modes by county



Figure 10 Share of business travel "other modes" by country

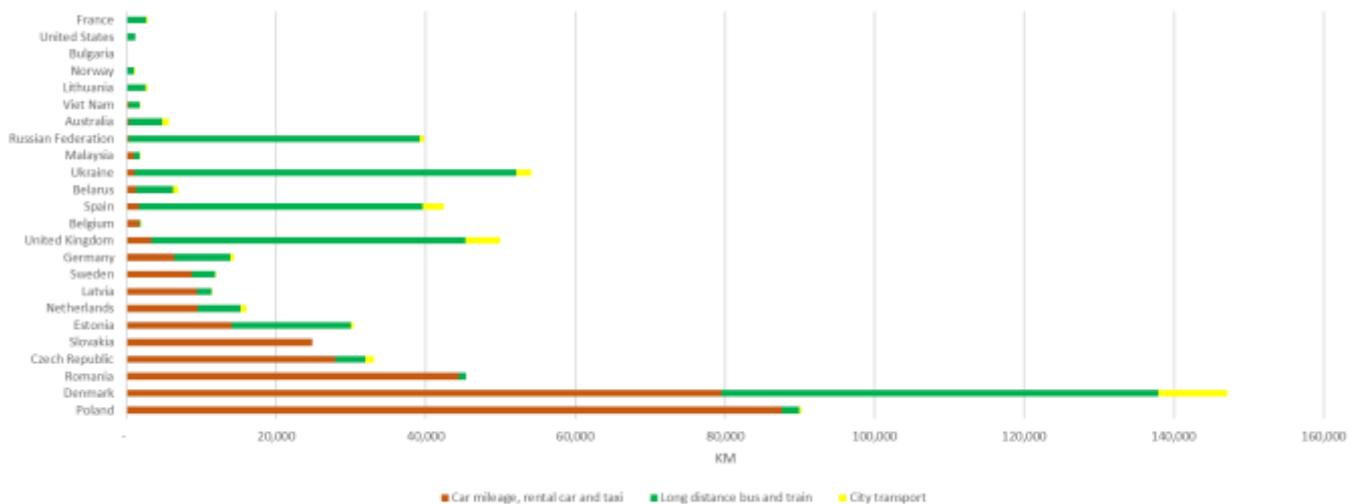


Figure 9 Distances of business travel "other modes" by country

### 3.2 Transportation in vehicles owned or controlled by NEPCon

Four NEPCon's regional offices owned or leased seven vehicles in 2017 (Table 10).

Legal entity	Car Model	Fuel type	Car Manufacture year
Nepcon OÜ	Hyundai i40 wagon	diesel	2015
Nepcon OÜ	MAZDA 3	gasoline	2014
NEPCon SIA	Skoda Octavia	diesel	2016
NEPCon LT UAB	Kia Ceed	diesel	2013
NEPCon LT UAB	Nissan Qashqai	diesel	2016
NEPCon LT UAB	Kia Rio	diesel	2013
NEPCon Bulgaria EOOD	Dacia Duster	gasoline	2016

*Table 10 Vehicles owned or leased by NEPCon*

More than 200 000 kilometres was travelled on cars owned or leased by NEPCon in 2017 and 37 891 kg CO<sub>2</sub>e was created.

Legal entity	Distance travelled (km)	Emissions (kgCO <sub>2</sub> e)
NEPCon Bulgaria EOOD	26,408	3,802
NEPCon LT UAB	97,600	12,943
Nepcon OÜ	49,812	6,575
NEPCon SIA	36,000	4,104
<b>TOTAL</b>	<b>209,820</b>	<b>27,425</b>

*Table 11 Company car distances and emissions*

A company vehicle was used for an average 26 000 kilometres per year, creating an average 6900 kg CO<sub>2</sub>e.

### 3.3 Employee commuting

Personal car was used most for commuting in 2017 based on distances travelled. Walking and bicycle riding accounted for 15% of total travel, which is very good indicator. An average car trip to work was 26 km in 2017 while average walking trip was 4 km.

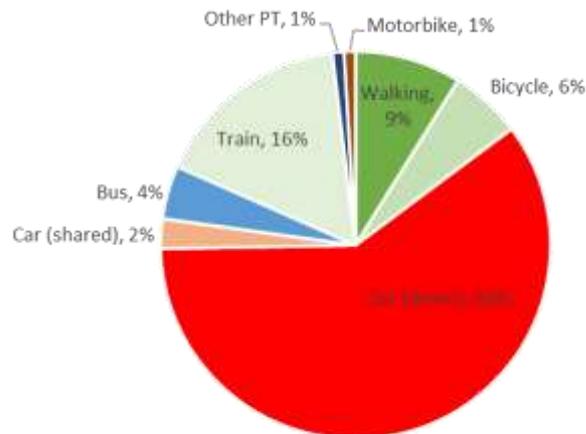


Figure 11 Commuting modal split (by distances travelled)

Car travel dominates also in case the number of trips is analysed. It can be concluded, that longer distances are preferably travelled by car and shorter distances on bicycles or walking.

In total, more than 144 thousand kilometres was travelled in 2017 for commuting purposes. This considers the fact, that 34% of NEPCon employees work from home and don't regularly go to any offices.

60% of those employees who work in a NEPCon's office go to the office every working day, 27% go to the office 3-4 days a week and 13% only 1-2 days a week.

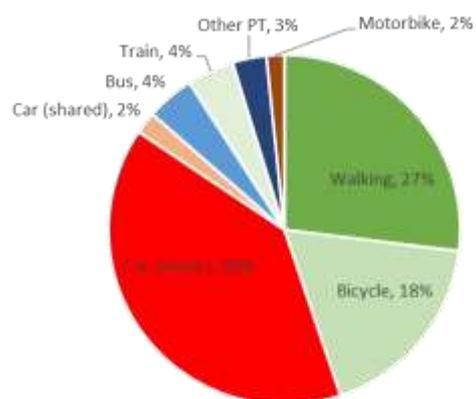


Figure 12 Commuting modal split (by the no. of trips)

Figure 13 illustrates the usage of different transport modes for commuting in legal entities. Some of the legal entities are clearly using car more than other transport modes, in two offices (Latvia, Denmark Aarhus) employees indicated in the questionnaire that the office location is too car orientated and difficult to be reached by public transport or walking/cycling.

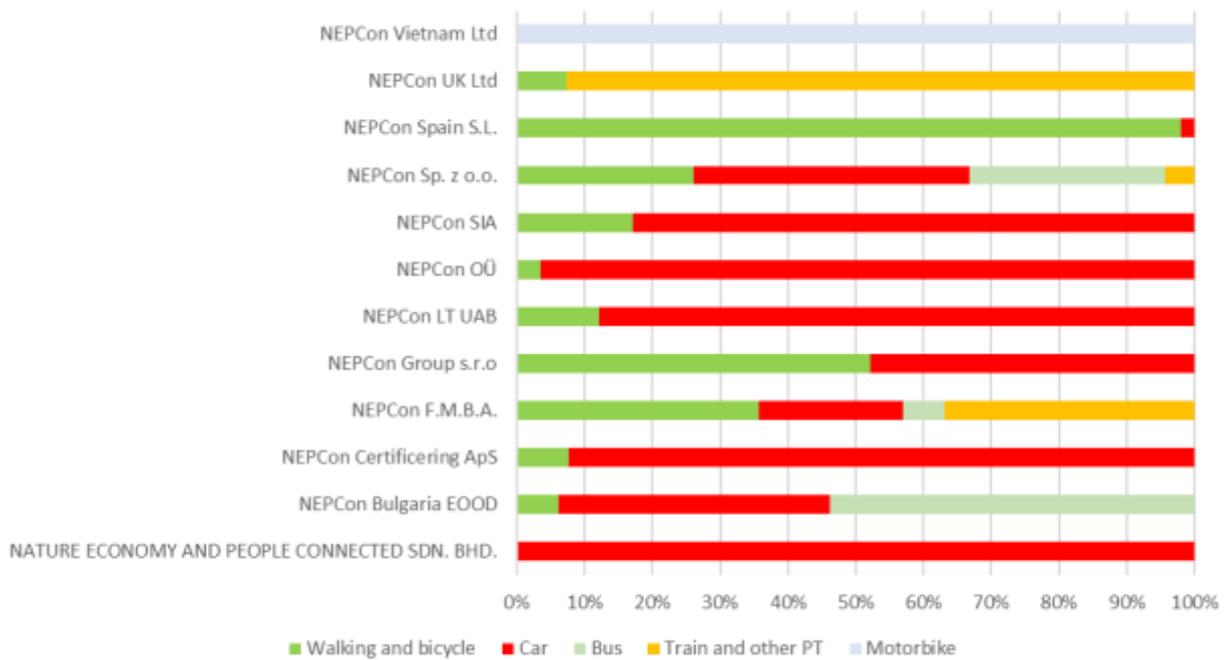


Figure 13 Commuting modal split by legal entities

### 3.4 Electricity consumption

Electricity consumption was calculated to all NEPCon offices and also for 34% of employees who work from home and do not regularly go to any office (based on the commuting survey). Most electricity was used in offices in

Estonia and Lithuania, where the electricity is partly used for heating.

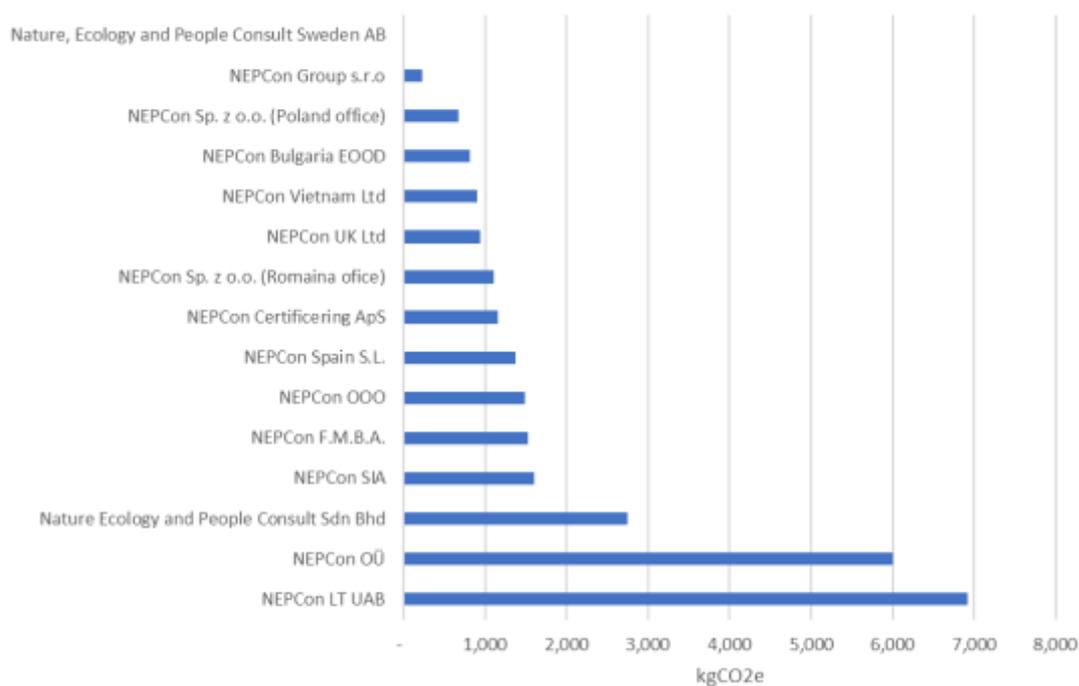


Figure 14 Electricity consumption by legal entity

Entity	Office	No of employees	Consumption (kWh)	Emissions (kgCO2e)
NEPCon LT UAB	Lithuania	14	13,766	6,924
NEPCon OÜ	Estonia	18	13,743	6,006
Nature Ecology and People Consult Sdn Bhd	Malaysia	5	3,988	2,744
NEPCon SIA	Latvia	6	1,480	1,607
NEPCon F.M.B.A.	Denmark, Copenhagen	26	4,847	1,527
NEPCon OOO	No office	12	5,518	1,490
NEPCon Spain S.L.	Spain	6	2,759	1,377
NEPCon Certificering ApS	Denmark, Aarhus	8	3,679	1,159
NEPCon Sp. z o.o.	Romania	4	1,420	1,107
NEPCon UK Ltd	UK	7	3,219	937
NEPCon Vietnam Ltd	Vietnam	4	1,839	909
NEPCon Bulgaria EOOD	Bulgaria	3	1,380	815
NEPCon Sp. z o.o.	Poland	14	5,088	677
NEPCon Group s.r.o	Czech Republic	2	395	234
Nature, Ecology and People Consult Sweden AB	No office	1	460	8

Table 12 Electricity consumption and related emissions by legal entity

## 4. Discussion and limitations

### 4.1 Limitations

There were several limitations in the activity data, which affected the outcome of current accounting:

- Employees' expense reports were not 100% provided in Salesforce. In some reports it was not possible to identify the transport mode or the origin/destination and the clarifying queries were not returned.
- Employees' reports about the own car usage for work purposes were partly incorrect in Salesforce. The "amount" in the data structure indicated the kilometres travelled, still in some cases the amount was filled as "1" and the compensation sum was calculated. Mileage reports were not provided by NEPCon OOO.
- Data about electricity was missing in 5 regional offices, since the renting conditions for these offices do not provide data for utility usage. In these cases, electricity was estimated based on the data provide by other offices. An average usage per employee was calculated based on reported activity data and usage in other offices were estimated. This calculation method is not approved by any GHG accounting guidance acts, still it was used as the best option to estimate the emissions that is generated in working places.

### 3.3 Suggestions for future accounting

- Business travel forms the biggest part of NEPCon's carbon footprint. Considering the current collection method for business travel activity data and the complications in creating correct database, following options for future accounting could be considered:
  1. If the interest is only the amount of emissions related to business travel, sample based accounting method should be considered.
  2. In case detailed business travel data is needed for other purposes in the management of the organisation, fully automated data collection should be implemented in Salesforce.
- DEFRA database for emission factors was used for NAPCon carbon footprint accounting in 2016 and 2017. Using the same data over years allows to compare the results. Since DEFRA is not providing emission factors for overseas electricity consumption from 2015 onward, access to International Energy Agency emission factors database should be considered.
- Carbon footprint management plan shall be created and implemented, according to NEPCon carbon footprint standard, the greenhouse gas accounting is only the first step in the process.