

## Supplementary material: Comparative Assessment of Carbon Footprints of Selected Organizations: The Application of the Enhanced Bilan Carbone Model

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**Table S1.** The CF of Agency for 2017, using the enhanced BC model.

Emission category	Emission source	Activity data	Data unit	Emission factor*	Emission factor unit	Emissions (kg CO <sub>2</sub> e)
Energy sources	Purchased electricity from grid	166,735	kWh	0.351	kgCO <sub>2</sub> e/kWh	58,558
	Purchased heat from district heating	107,571	kWh	0.350	kgCO <sub>2</sub> e/kWh	37,660
	Electricity grid losses	166,735	kWh	0.033	kgCO <sub>2</sub> e/kWh	5465
Non-energy sources	Leakage of refrigerant (R407a)	1000	g	2.260	kgCO <sub>2</sub> e/g	2260
People transport	Employees commuting by diesel car	19,590	l	3.230	kgCO <sub>2</sub> e/l	63,268
	Employees commuting by gasoline car	29,983	l	2.805	kgCO <sub>2</sub> e/l	84,089
	Employees commuting by tram	69,555	p.km	0.007	kgCO <sub>2</sub> e/p.km	1100
	Employees commuting by urban bus > 250 000 inh.	165,655	p.km	0.154	kgCO <sub>2</sub> e/p.km	10,723
	Employees commuting by motorcycle	2018	v.km	0.204	kgCO <sub>2</sub> e/v.km	412
	Business travels by organization's diesel car	4849	l	3.230	kgCO <sub>2</sub> e/l	15,662
	Business travels by organization's gasoline car	165	l	2.805	kgCO <sub>2</sub> e/l	463
	Business travels by car, other cases	58,040	v.km	0.325	kgCO <sub>2</sub> e/v.km	18,889
	Business travels by urban bus > 250 000 inh.	7902	p.km	0.154	kgCO <sub>2</sub> e/p.km	1218
	Business travels by urban bus < 150 000 inh.	24,583	p.km	0.181	kgCO <sub>2</sub> e/p.km	4461
	Business travels by electric train	890	p.km	0.044	kgCO <sub>2</sub> e/p.km	39
	Business travels by diesel train	1666	p.km	0.087	kgCO <sub>2</sub> e/p.km	145
	Business travels by plane, > 1000 km	346,451	p.km	0.110	kgCO <sub>2</sub> e/p.km	38,244
	Business travels by boat	1682	p.km	0.243	kgCO <sub>2</sub> e/p.km	409
	Visitors travels by car – other cases	36,040	v.km	0.325	kgCO <sub>2</sub> e/v.km	11,729
	Visitors tr. by urban bus > 250 000 inh.	23,288	p.km	0.154	kgCO <sub>2</sub> e/p.km	3590
	Visitors travels by tram	4288	p.km	0.007	kgCO <sub>2</sub> e/p.km	28
	Visitors travels by plane > 1000 km	18,240	p.km	0.110	kgCO <sub>2</sub> e/p.km	2013
Inputs	Papers	974	kg	0.718	kgCO <sub>2</sub> e/kg	699
	Plastics	50	kg	1.870	kgCO <sub>2</sub> e/kg	94
	Meals - typical meal with chicken	6356	meal	1.100	kgCO <sub>2</sub> e/meal	6992
	Meals - typical meal with pork	6356	meal	1.930	kgCO <sub>2</sub> e/meal	12,267
	Meals - typical meal with beef	2119	meal	4.510	kgCO <sub>2</sub> e/meal	9554
	Meals - fish	6356	meal	0.470	kgCO <sub>2</sub> e/meal	2987
	Meals - vegetarian	4237	meal	0.440	kgCO <sub>2</sub> e/meal	1864
	Water consumption	1012	m <sup>3</sup>	0.132	kgCO <sub>2</sub> e/m <sup>3</sup>	134
	Office equipment	1172	EUR	0.917	kgCO <sub>2</sub> e/EUR	1075
	Services with low level of equipment	369,853	EUR	0.037	kgCO <sub>2</sub> e/EUR	13,574
	Services with high level of equipment	353,836	EUR	0.110	kgCO <sub>2</sub> e/EUR	38,922
Direct waste	Non-hazardous waste - recycled paper	1295	kg	0.033	kgCO <sub>2</sub> e/kg	43
	Non-hazardous waste - recycled plastic	100	kg	0.033	kgCO <sub>2</sub> e/kg	3
	Average municipal waste - landfilled	1757	kg	0.383	kgCO <sub>2</sub> e/kg	673
	Wastewater	1012	m <sup>3</sup>	0.262	kgCO <sub>2</sub> e/m <sup>3</sup>	265
End of life	Non-hazardous waste - recycled paper	4810	kg	0.223	kgCO <sub>2</sub> e/kg	1 071
	Non-hazardous waste - recycled plastic	50	kg	0.033	kgCO <sub>2</sub> e/kg	1.7
Capital goods	Building (amortization: 40 years)	1755	m <sup>2</sup>	11.725	kgCO <sub>2</sub> e/m <sup>2</sup>	20,579
	Furniture (amortization: 5 years)	2955	kg	0.367	kgCO <sub>2</sub> e/kg	1083
	IT equipment (amortization: 4 years)	75,969	EUR	0.229	kgCO <sub>2</sub> e/EUR	17,416
	Laptops and PCs (amortization: 4 years)	20	unit	0.320	tCO <sub>2</sub> e/unit	6400
	Monitors (amortization: 4 years)	102	unit	0.192	tCO <sub>2</sub> e/unit	19,559
	Printers (amortization: 4 years)	1	unit	0.028	tCO <sub>2</sub> e/unit	28
	Copy machines (amortization: 4 years)	1	unit	0.735	tCO <sub>2</sub> e/unit	735
<b>Total</b>						<b>516,441</b>

\* Croatian country-specific emission factors for purchased heat, purchased electricity, travel by car, travel by train, and paper input were used, instead of default French Bilan Carbone emission factors.

**Table S2.** The CF of Faculty for 2017, using the enhanced BC.

Emission category	Emission Source	Activity Data	Data Unit	Emission Factor*	Emission Factor Unit	Emissions (kg CO <sub>2</sub> e)
Energy sources	Purchased electricity from grid	1,313,125	kWh	0.351	kg CO <sub>2</sub> e/kWh	461,173
	Purchased heat from district heating	4,510,000	kWh	0.350	kg CO <sub>2</sub> e/kWh	1,578,923
	Natural gas consumption	85,048	kWh	0.222	kg CO <sub>2</sub> e/kWh	18,855
	Electricity grid losses	1,313,125	kWh	0.033	kg CO <sub>2</sub> e/kWh	43,043
People transport	Employees commuting by diesel car	61,773	l	3.230	kgCO <sub>2</sub> e/l	199,502
	Employees commuting by gasoline car	30,416	l	2.805	kgCO <sub>2</sub> e/l	85,304
	Employees commuting by LPG car	2068	l	1.838	kgCO <sub>2</sub> e/l	3800
	Employees commuting by tram	41,197	p.km	0.007	kgCO <sub>2</sub> e/p.km	274
	Employees commuting by urban bus > 250 000 inh.	74,349	p.km	0.154	kgCO <sub>2</sub> e/p.km	11,462
	Employees commuting by electric train	147,073	p.km	0.044	kgCO <sub>2</sub> e/p.km	6406
	Employees commuting by motorcycle	4875	v.km	0.204	kgCO <sub>2</sub> e/v.km	995
	Business tr. by organization's diesel car	1606	l	3.230	kgCO <sub>2</sub> e/l	5188
	Business travels by private diesel car	20,722	l	3.230	kgCO <sub>2</sub> e/l	66,925
	Business travels by private gasoline car	16,610	l	2.805	kgCO <sub>2</sub> e/l	46,583
	Business travels by urban bus > 250 000 inh.	75,518	p.km	0.154	kgCO <sub>2</sub> e/p.km	11,642
	Business travels by electric train	8634	p.km	0.044	kgCO <sub>2</sub> e/p.km	376
	Business travels by plane, 0-1000 km	23,462	p.km	0.127	kgCO <sub>2</sub> e/p.km	2980
	Business travels by plane, > 1000 km	1,724,962	p.km	0.110	kgCO <sub>2</sub> e/p.km	190,416
	Visitors travels by diesel car	51,310	l	3.230	kgCO <sub>2</sub> e/l	165,710
	Visitors travels by gasoline car	42,553	l	2.805	kgCO <sub>2</sub> e/l	119,343
	Visitors tr. by urban bus > 250 000 inh.	520,065	p.km	0.154	kgCO <sub>2</sub> e/p.km	80,173
	Visitors travels by electricity train	617,428	p.km	0.044	kgCO <sub>2</sub> e/p.km	26,892
	Visitors travels by tram	282,711	p.km	0.007	kgCO <sub>2</sub> e/p.km	1877
	Visitors travels by plane > 1000 km	135,867	p.km	0.110	kgCO <sub>2</sub> e/p.km	14,998
Inputs	Papers	5052	kg	0.718	kgCO <sub>2</sub> e/kg	3628
	Meals - typical meal with chicken	72,000	meal	1.100	kgCO <sub>2</sub> e/meal	79,200
	Meals - typical meal with pork	48,000	meal	1.930	kgCO <sub>2</sub> e/meal	92,640
	Meals - typical meal with beef	24,000	meal	4.510	kgCO <sub>2</sub> e/meal	108,240
	Meals - fish	60,000	meal	0.470	kgCO <sub>2</sub> e/meal	28,200
	Meals - vegetarian	36,000	meal	0.440	kgCO <sub>2</sub> e/meal	15,840
	Water consumption	18,041	m <sup>3</sup>	0.132	kgCO <sub>2</sub> e/m <sup>3</sup>	2381
	Office equipment	205,230	EUR	0.917	kgCO <sub>2</sub> e/EUR	188,196
Direct waste	Consumables	57,260	EUR	0.367	kgCO <sub>2</sub> e/EUR	21,014
	Non-hazardous waste - recycled paper	1500	kg	0.033	kgCO <sub>2</sub> e/kg	50
	Non-hazardous waste - recycled plastic	900	kg	0.033	kgCO <sub>2</sub> e/kg	30
	Average municipal waste - landfilled	71,787	kg	0.383	kgCO <sub>2</sub> e/kg	27,494
End of life	Wastewater	18,041	m <sup>3</sup>	0.262	kgCO <sub>2</sub> e/m <sup>3</sup>	4727
	Non-hazardous waste - recycled paper	2,875	kg	0.223	kgCO <sub>2</sub> e/kg	640
Capital goods	Non-hazardous waste - recycled plastic	144	kg	0.033	kgCO <sub>2</sub> e/kg	4.7
	Furniture (amortization: 5 years)	49,945	kg	0.367	kgCO <sub>2</sub> e/kg	18,310
	IT equipment (amortization: 4 years)	1,789,794	EUR	0.229	kgCO <sub>2</sub> e/EUR	410,310
	Laptops and PCs (amortization: 4 years)	109	unit	0.320	tCO <sub>2</sub> e/unit	34,880
	Monitors (amortization: 4 years)	291	unit	0.192	tCO <sub>2</sub> e/unit	55,799
	Printers (amortization: 4 years)	70	unit	0.028	tCO <sub>2</sub> e/unit	1925
	Copy machines (amortization: 4 years)	143	unit	0.735	tCO <sub>2</sub> e/unit	18,340
<b>Total</b>						<b>4,254,687</b>

\* Croatian country-specific emission factors for purchased heat, purchased electricity, natural gas consumption, travel by car, travel by train, and paper input were used, instead of default French Bilan Carbone emission factors.

**Table S3.** The CF of Institute for 2017, using the enhanced BC.

Emission Category	Emission Source	Activity Data	Data Unit	Emission Factor*	Emission Factor Unit	Emissions (kg CO <sub>2</sub> e)**
Energy sources	Purchased electricity from grid	229,524	kWh	0.351	kgCO <sub>2</sub> e/kWh	80,609
	Purchased heat from district heating	163,138	kWh	0.350	kgCO <sub>2</sub> e/kWh	57,113
	Electricity grid losses	229,524	kWh	0.033	kgCO <sub>2</sub> e/kWh	7524
Non-energy sources	Leakage of refrigerant (R417a)	2910	g	2.490	kgCO <sub>2</sub> e/g	7246
Freight transport	Upstream transport of paper	3018	t.km	1.233	kgCO <sub>2</sub> e/t.km	3018
	Downstream transport of studies	84	l	3.230	kgCO <sub>2</sub> e/l	84
People transport	Employees commuting by diesel car	14,486	l	3.230	kgCO <sub>2</sub> e/l	46,783
	Employees commuting by gasoline car	6947	l	2.805	kgCO <sub>2</sub> e/l	19,482
	Employees commuting by tram	23,657	p.km	0.007	kgCO <sub>2</sub> e/p.km	157
	Employees commuting by urban bus > 250 000 inh.	5672	p.km	0.154	kgCO <sub>2</sub> e/p.km	874
	Business tr. by organization's diesel car	10,674	l	3.230	kgCO <sub>2</sub> e/l	34,474
	Business travels by private diesel car	335	l	3.230	kgCO <sub>2</sub> e/l	1080
	Business travels by private gasoline car	156	l	2.805	kgCO <sub>2</sub> e/l	438
	Business travels by urban bus > 250 000 inh.	7110	p.km	0.154	kgCO <sub>2</sub> e/p.km	1096
	Business travels by plane, > 1000 km	660,954	p.km	0.110	kgCO <sub>2</sub> e/p.km	72,962
	Visitors travels by diesel car	3160	l	3.230	kgCO <sub>2</sub> e/l	10,204
	Visitors travels by gasoline car	2347	l	2.805	kgCO <sub>2</sub> e/l	6583
	Visitors travels by tram	3852	p.km	0.007	kgCO <sub>2</sub> e/p.km	26
	Visitors travels by plane > 1000 km	173,340	p.km	0.110	kgCO <sub>2</sub> e/p.km	19,135
Inputs	Papers	1098	kg	0.718	kgCO <sub>2</sub> e/kg	788
	Plastics	6	kg	1.870	kgCO <sub>2</sub> e/kg	11
	Meals - typical meal with chicken	6246	meal	1.100	kgCO <sub>2</sub> e/meal	6870
	Meals - typical meal with pork	3747	meal	1.930	kgCO <sub>2</sub> e/meal	7233
	Meals - typical meal with beef	2498	meal	4.510	kgCO <sub>2</sub> e/meal	11,267
	Meals - fish	3569	meal	0.470	kgCO <sub>2</sub> e/meal	1677
	Meals - vegetarian	1785	meal	0.440	kgCO <sub>2</sub> e/meal	785
	Water consumption	1001	m <sup>3</sup>	0.132	kgCO <sub>2</sub> e/m <sup>3</sup>	132
	Office equipment	7411	EUR	0.917	kgCO <sub>2</sub> e/EUR	6796
	Services with low level of equipment	182,336	EUR	0.037	kgCO <sub>2</sub> e/EUR	6692
	Services with high level of equipment	25,870	EUR	0.110	kgCO <sub>2</sub> e/EUR	2846
Direct waste	Non-hazardous waste - recycled paper	823	kg	0.033	kgCO <sub>2</sub> e/kg	27
	Non-hazardous waste - recycled plastic	290	kg	0.033	kgCO <sub>2</sub> e/kg	10
	Non-hazardous waste - organic/food	1387	kg	0.558	kgCO <sub>2</sub> e/kg	774
	Hazardous waste (e.g. electronic waste)	448	kg	0.128	kgCO <sub>2</sub> e/kg	57
	Wastewater	1001	m <sup>3</sup>	0.262	kgCO <sub>2</sub> e/m <sup>3</sup>	262
End of life	Non-hazardous waste - recycled paper	274	kg	0.223	kgCO <sub>2</sub> e/kg	61
	Non-hazardous waste - recycled plastic	41	kg	0.033	kgCO <sub>2</sub> e/kg	14
Capital goods	Building (amortization: 40 years)	2144	m <sup>2</sup>	11.725	kgCO <sub>2</sub> e/m <sup>2</sup>	25,138
	Vehicles (amortization: 4 years)	5132	kg	1.375	kgCO <sub>2</sub> e/kg	7057
	Furniture (amortization: 5 years)	2095	kg	0.367	kgCO <sub>2</sub> e/kg	768
	IT equipment (amortization: 4 years)	16,148	EUR	0.229	kgCO <sub>2</sub> e/EUR	3702
	Laptops and PCs (amortization: 4 years)	62	unit	0.320	tCO <sub>2</sub> e/unit	19,840
	Monitors (amortization: 4 years)	15	unit	0.192	tCO <sub>2</sub> e/unit	2876
	Printers (amortization: 4 years)	3	unit	0.028	tCO <sub>2</sub> e/unit	83
	Copy machines (amortization: 4 years)	2	unit	0.735	tCO <sub>2</sub> e/unit	1470
<b>Total</b>						<b>477,004</b>

\* Croatian country-specific emission factors for purchased heat, purchased electricity, travel by car, and paper input were used, instead of default French Bilan Carbone emission factors.

\*\* presented EIHP's CF for 2017 is lower in comparison with estimated CF in the paper [28], due to recalculation of GHG emission for business and visitor travels by plane (used emission factor is 0.110 kgCO<sub>2</sub>e/p.km instead of 0.319 kgCO<sub>2</sub>e/p.km in [28]) and adding GHG emissions for input of plastics (11 kg CO<sub>2</sub>e).

**Table S4.** Key source analysis for Agency's CF in 2017—Level Assessment.

No.	Source Categories	GHG Emissions (t CO <sub>2</sub> e)	Share of Emission Sources (%)	Cumulative Total of Share (%)
1	Commuting – travel by car	147.357	28.5331	28.5331
2	Purchased electricity form grid	64.023	12.3970	40.9301
3	Input - services	52.496	10.1649	51.0950
4	Capital goods - IT equipment	44.137	8.5464	59.6414
5	Business travels by plane	38.244	7.4053	67.0467
6	Purchased heat from district heating	37.660	7.2922	74.3389
7	Input - meals	33.664	6.5185	80.8575
8	Capital goods - building	20.579	3.9847	84.8422
9	Business travels by private car	18.889	3.6575	88.4996
10	Business travels by office car	16.124	3.1222	91.6218
11	Visitors' travels by car	11.729	2.2711	93.8930
12	Commuting – travel by bus	10.723	2.0763	95.9692
13	Business travels by bus	5.679	1.0997	97.0689
14	Visitors' travel by bus	3.590	0.6952	97.7641
15	Leakage of refrigerant	2.260	0.4376	98.2017
16	Visitors' travel by plane	2.013	0.3899	98.5916
17	Commuting – travel by tram	1.100	0.2130	98.8045
18	Capital goods - furniture	1.083	0.2098	99.0143
19	Input - office equipment	1.075	0.2081	99.2224
20	End of life - papers	1.071	0.2075	99.4298
21	Input - papers	0.699	0.1353	99.5652
22	Non-hazardous average household waste	0.673	0.1303	99.6955
23	Commuting – travel by motorcycle	0.412	0.0797	99.7752
24	Business travels by boat	0.409	0.0792	99.8544
25	Wastewater	0.265	0.0513	99.9057
26	Business travels by train	0.184	0.0355	99.9413
27	Input - water consumption	0.134	0.0259	99.9671
28	Input - plastics	0.094	0.0181	99.9853
29	Non-hazardous waste - papers	0.043	0.0083	99.9935
30	Visitors' travel by tram	0.028	0.0055	99.9990
31	Non-hazardous waste - plastics	0.003	0.0006	99.9997
32	End of life - plastics	0.002	0.0003	100.0000
<b>Total</b>		<b>516.441</b>	<b>100.0000</b>	

**Table S5.** Key source analysis for Faculty's CF in 2017—Level Assessment.

No.	Source Categories	GHG Emissions (t CO <sub>2</sub> e)	Share of Emission Sources (%)	Cumulative Total of Share (%)
1	Purchased heat from district heating	1578.923	37.1102	37.1102
2	Capital IT equipment	521.254	12.2513	49.3615
3	Purchased electricity from grid	480.028	11.2823	60.6438
4	Input - meals	324.120	7.6180	68.2618
5	Commuting – travel by car	288.606	6.7833	75.0450
6	Visitors' travel by car	285.053	6.6997	81.7448
7	Input - office equipment	209.210	4.9172	86.6620
8	Business travels by plane	193.395	4.5455	91.2074
9	Business travels by private car	113.507	2.6678	93.8752
10	Visitors' travels by bus	80.173	1.8843	95.7596
11	Natural gas consumption	43.043	1.0117	96.7712
12	Household waste	27.494	0.6462	97.4175
13	Visitors' travel by train	26.892	0.6320	98.0495
14	Capital goods - furniture	18.310	0.4303	98.4799
15	Visitors' travel by plane	14.998	0.3525	98.8324
16	Business travels by bus	11.642	0.2736	99.1060
17	Commuting – travel by bus	11.462	0.2694	99.3754
18	Commuting – travel by train	6.406	0.1506	99.5259
19	Business travels by office car	5.188	0.1219	99.6479
20	Wastewater	4.727	0.1111	99.7590
21	Input - papers	3.628	0.0853	99.8442
22	Input - water consumption	2.381	0.0560	99.9002
23	Visitors' travel by tram	1.877	0.0441	99.9443
24	Commuting – travel by motorcycle	0.995	0.0234	99.9677
25	End of life - papers	0.640	0.0151	99.9828
26	Business travels by train	0.376	0.0088	99.9916
27	Commuting – travel by tram	0.274	0.0064	99.9980
28	Non-hazardous waste - papers	0.050	0.0012	99.9992
29	Non-hazardous waste - plastics	0.030	0.0007	99.9999
30	End of life - plastics	0.005	0.0001	100.0000
<b>Total</b>		<b>4254.687</b>	<b>100.0000</b>	

**Table S6.** Key source analysis for Institute's CF in 2017—Level Assessment.

No.	Source Categories	GHG Emissions (t CO <sub>2</sub> e)	Share of Emission Sources (%)	Cumulative Total of Share (%)
1	Purchased electricity from grid	88.133	18.4764	18.4764
2	Business travels by plane	72.962	15.2958	33.7722
3	Commuting - travel by car	66.265	13.8919	47.6641
4	Purchased heat from district heating	57.113	11.9734	59.6375
5	Business travels by office car	34.474	7.2273	66.8647
6	Capital goods - IT equipment	27.971	5.8638	72.7285
7	Input - meals	27.833	5.8349	78.5635
8	Capital goods - building	25.138	5.2701	83.8335
9	Visitors' travel by plane	19.135	4.0114	87.8450
10	Visitors' travel by car	16.787	3.5193	91.3643
11	Input - services	9.537	1.9995	93.3637
12	Leakage of refrigerant	7.246	1.5190	94.8828
13	Capital goods - vehicles	7.057	1.4793	96.3621
14	Input - office equipment	6.796	1.4246	97.7867
15	Upstream transport of paper	3.722	0.7803	98.5671
16	Business travels by private car	1.518	0.3183	98.8853
17	Business travels by bus	1.096	0.2298	99.1151
18	Commuting – travel by bus	0.874	0.1833	99.2984
19	Input - papers	0.788	0.1652	99.4636
20	Non-hazardous organic waste	0.774	0.1623	99.6259
21	Capital goods - furniture	0.768	0.1610	99.7869
22	Downstream transport of studies	0.272	0.0570	99.8438
23	Wastewater	0.262	0.0550	99.8988
24	Commuting – travel by tram	0.157	0.0329	99.9318
25	Input - water consumption	0.132	0.0277	99.9595
26	End of life - papers	0.061	0.0128	99.9723
27	Hazardous waste	0.057	0.0120	99.9842
28	Non-hazardous waste - papers	0.027	0.0057	99.9899
29	Visitors' travel by tram	0.026	0.0054	99.9953
30	Input - plastics	0.011	0.0024	99.9977
31	Non-hazardous waste - plastics	0.010	0.0020	99.9997
32	End of life - plastics	0.001	0.0003	100.0000
<b>Total</b>		<b>477.004</b>	<b>100.0000</b>	

**Table S7.** The uncertainties of the CF calculation for the Agency.

Emission Category	Emission Source	GHG Smissions in 2017 (kg CO <sub>2</sub> e)	Activity Data Uncertainty (%)	Emission Factor Uncertainty (%)	Combined Uncertainty (%)
Energy sources	Purchased electricity from grid	58,558	5	10	11.18
	Purchased heat from district heating	37,660	5	10	11.18
	Electricity grid losses	5465	5	10	11.18
Non-energy	Leakage of refrigerant	2260	20	30	36.06
Inputs	Paper	699	10	20	22.36
	Plastics	94	10	20	22.36
	Typical meal with chicken	6992	20	50	53.85
	Typical meal with pork	12,267	20	50	53.85
	Typical meal with beef	9554	20	50	53.85
	Fish meal	2987	20	50	53.85
	Vegetarian meal	1864	20	50	53.85
	Water consumption	134	5	11	12.08
	Office equipment	1075	10	50	50.99
	Services with low level of equipment	13,574	10	50	50.99
	Services with high level of equipment	38,922	10	50	50.99
People transport	Employees commuting by diesel car	63,268	10	8	12.81
	Employees commuting by gasoline car	84,089	10	8	12.81
	Employees commuting by bus	10,723	10	60	60.83
	Employees commuting by motorcycle	412	10	60	60.83
	Employees commuting by tram	1100	10	60	60.83
	Business tr. by organization's diesel car	15,662	5	8	9.43
	Business tr. by organization's gasoline car	463	5	8	9.43
	Business travels by car - other cases	18,889	10	14	17.20
	Business travels by urban bus > 250 000 inh.	1218	10	60	60.83
	Business travels by urban bus < 150 000 inh.	4461	10	60	60.83
	Business travels by electric train	145	10	20	22.36
	Business travels by diesel train	39	10	20	22.36
	Business travels by plane	38,244	20	20	28.28
	Business travels by boat	409	20	10	22.36
	Visitors travels by car	11,729	20	14	24.41
	Visitors travels by bus	3590	20	60	63.25
	Visitors travels by plane	2013	20	20	28.28
	Visitors travels by tram	28	20	60	63.25
Direct waste	Average municipal waste - landfilled	673	20	50	53.85
	Non-hazardous waste - recycled plastic	3	20	50	53.85
	Non-hazardous waste - recycled paper	43	20	50	53.85
	Wastewater	265	5	20	20.62
Capital goods	Building	20,579	5	50	50.25
	Furniture	1083	10	50	50.99
	Laptops and PCs	6400	20	50	53.85
	Monitors	19,559	20	50	53.85
	Printers	28	20	50	53.85
	Copy machines	735	20	50	53.85
	IT equipment	17,416	20	50	53.85
End of life	Non-hazardous waste - recycled plastic	2	20	30	36.06
	Non-hazardous waste - recycled paper	1071	20	50	53.85
<b>Total GHG emission:</b>		<b>516,441</b>			
<b>Total uncertainty:</b>					<b>8.40</b>

**Table S8.** The uncertainties of the CF calculation for the Faculty.

Emission Category	Emission Source	GHG Emissions in 2017 (kg CO <sub>2</sub> e)	Activity Data Uncertainty (%)	Emission Factor Uncertainty (%)	Combined Uncertainty (%)
Energy sources	Purchased heat from district heating	1,578,923	5	10	11.18
	Purchased electricity from grid	461,173	5	10	11.18
	Electricity grid losses	43,043	5	10	11.18
	Natural gas consumption	18,855	10	8	12.81
Inputs	Paper	3628	10	20	22.36
	Typical meal with chicken	79,200	20	50	53.85
	Typical meal with pork	92,640	20	50	53.85
	Typical meal with beef	108,240	20	50	53.85
	Fish meal	28,200	20	50	53.85
	Vegetarian meal	15,840	20	50	53.85
	Water consumption	2381	5	11	12.08
	Office equipment	188,196	10	50	50.99
	Consumables	21,014	10	50	50.99
People transport	Employees commuting by diesel car	199,502	10	8	12.81
	Employees commuting by diesel car	85,304	10	8	12.81
	Employees commuting by LPG car	3800	10	8	12.81
	Employees commuting by urban bus > 250 000 inh.	11,462	10	60	60.83
	Employees commuting by motorcycle	995	10	60	60.83
	Employees commuting by tram	274	10	60	60.83
	Employees commuting by electric train	6406	10	20	22.36
	Business tr. by organization's diesel car	5188	5	8	9.43
	Business travels by private diesel car	66,925	10	8	12.81
	Business travels by private gasoline car	46,583	10	8	12.81
	Business travels by urban bus > 250 000 inh.	11,642	10	60	60.83
	Business travels by electric train	376	10	20	22.36
	Business travels by plane, 0-1000 km	2980	20	20	28.28
	Business travels by plane, > 1000 km	190,416	20	20	28.28
	Visitors travels by diesel car	165,710	20	8	21.54
	Visitors travels by gasoline car	119,343	20	8	21.54
	Visitors tr. by urban bus > 250 000 inh.	80,173	20	60	63.25
	Visitors travels by plane > 1000 km	14,998	20	20	101.98
	Visitors travels by tram	1877	20	60	63.25
	Visitors travels by electricity train	26,892	20	20	28.28
Direct waste	Average municipal waste - landfilled	27,494	20	50	53.85
	Non-hazardous waste - recycled plastic	30	20	50	53.85
	Non-hazardous waste - recycled paper	50	20	50	53.85
	Wastewater	4727	5	20	20.62
Capital goods	Furniture	18,310	10	50	50.99
	IT equipment	34,880	20	50	53.85
	Laptops and PCs	18,340	20	50	53.85
	Monitors	55,799	20	50	53.85
	Printers	1925	20	50	53.85
	Copy machines	410,310	20	50	53.85
End of life	Non-hazardous waste - recycled plastic	640	20	30	36.06
	Non-hazardous waste - recycled paper	5	20	50	53.85
<b>Total GHG emission:</b>		<b>4,254,687</b>			
<b>Total uncertainty:</b>					<b>7.80</b>



**Table S9.** The uncertainties of the CF calculation for the Institute.

<b>Emission Category</b>	<b>Emission Source</b>	<b>GHG Emissions in 2017 (kg CO<sub>2</sub>e)</b>	<b>Activity Data Uncertainty (%)</b>	<b>Emission Factor Uncertainty %</b>	<b>Combined Uncertainty %</b>
Energy sources	Purchased heat from district heating	57,113	5	10	11.18
	Purchased electricity from grid	80,609	5	10	11.18
	Electricity grid losses	7524	5	10	11.18
Non-energy	Leakage of refrigerant	7246	20	30	36.06
Inputs	Paper	788	10	20	22.36
	Plastics	11	10	20	22.36
	Typical meal with chicken	6870	20	50	53.85
	Typical meal with pork	7233	20	50	53.85
	Typical meal with beef	11,267	20	50	53.85
	Fish meal	1677	20	50	53.85
	Vegetarian meal	785	20	50	53.85
	Water consumption	132	5	11	12.08
	Office equipment	6796	10	50	50.99
	Services with low level of equipment	6692	10	50	50.99
	Services with high level of equipment	2846	10	50	50.99
Freight transport	Upstream transport of paper	3722	10	12	15.62
	Downstream transport of studies	272	10	8	12.81
People transport	Employees commuting by diesel car	46783	10	8	12.81
	Employees commuting by gasoline car	19,482	10	8	12.81
	Employees commuting by bus	874	10	60	60.83
	Employees commuting by tram	157	10	60	60.83
	Business travels by organization's car	34,474	5	8	9.43
	Business travels by private diesel car	1080	10	8	12.81
	Business travels by private gasoline car	438	10	8	12.81
	Business travels by bus	1096	10	60	60.83
	Business travels by train	0	10	20	22.36
	Business travels by plane	72,962	20	20	28.28
	Visitors travels by diesel car	10,204	20	8	21.54
	Visitors travels by gasoline car	6583	20	8	21.54
	Visitors travels by plane	19,135	100	20	101.98
	Visitors travels by tram	26	20	60	63.25
Direct waste	Non-hazardous waste - organic/food	774	20	50	53.85
	Non-hazardous waste - recycled plastic	10	20	50	53.85
	Non-hazardous waste - recycled paper	27	20	50	53.85
	Hazardous waste	57	20	50	53.85
	Wastewater	262	5	20	20.62
Capital goods	Building	25,138	5	50	50.25
	Vehicles	7057	10	50	50.99
	Furniture	768	10	50	50.99
	Laptops and PCs	19,840	20	50	53.85
	Monitors	2876	20	50	53.85
	Printers	83	20	50	53.85
	Copy machines	1470	20	50	53.85
	IT equipment	3702	20	50	53.85
End of life	Non-hazardous waste - recycled plastic	1	20	30	36.06
	Non-hazardous waste - recycled paper	61	20	50	53.85
<b>Total GHG emission:</b>		<b>477,004</b>			
<b>Total uncertainty:</b>					<b>6.73</b>