Supplementary Section

Table A. The average overall carbon footprints of respondents who participated in the selected low carbon consumption options with comparisons to those that did not.

CF Domain	Consumption option	Denmark			Finland			Iceland			Norway			Sweden		
		Overall CF	Overall difference	Domain difference	Overall CF	Overall difference	Domain difference	Overall CF	Overall difference	Domain difference	Overall CF	Overall difference	Domain change	Overall CF	Overall difference	Domain difference
Diet	Vegan/ Vegetarian	6.2	-2.2	-0.9	6.2	-1.9	-0.9	5.7	-1.6	-0.9	5	-1.7	-1	4.5	-1.8	-0.9
Housing energy	Heat pump	7.8	-1.2	-1.9	7.5	-1.5	-1.1	7.9	0.04	-0.09	6.7	-0.9	-0.4	6.1	-0.1	-0.5
	Renewable electricity	7.6	-0.6	-0.6	7.1	-1.7	-0.6	n/a	n/a	n/a	n/a	n/a	n/a	5.4	-0.9	-0.08
Vehicle possession & use	No car	6.2	-3	-2.4	5.9	-2.8	-2.7	4.8	-2.7	-2.5	5.1	-2.3	-2.5	4.4	-2	-2.2
	EV	7.5	-1.7	-1.2	7.5	-1.2	-1.6	6.5	-1.1	-1.4	5.8	-1.6	-1.4	4.9	-1.5	-1.2
Public transport	Public transport use	7.4	-1.1	0.5	7.3	-1	0.5	6.3	-1.2	0.4	6.4	-0.5	0.6	5.6	-0.3	0.8
Leisure travel	No flights	7	-3.5	-3.2	7.5	-3.3	-3.1	5.6	-3	-2.8	6	-2.1	-2.3	5.4	-2.9	-2.9

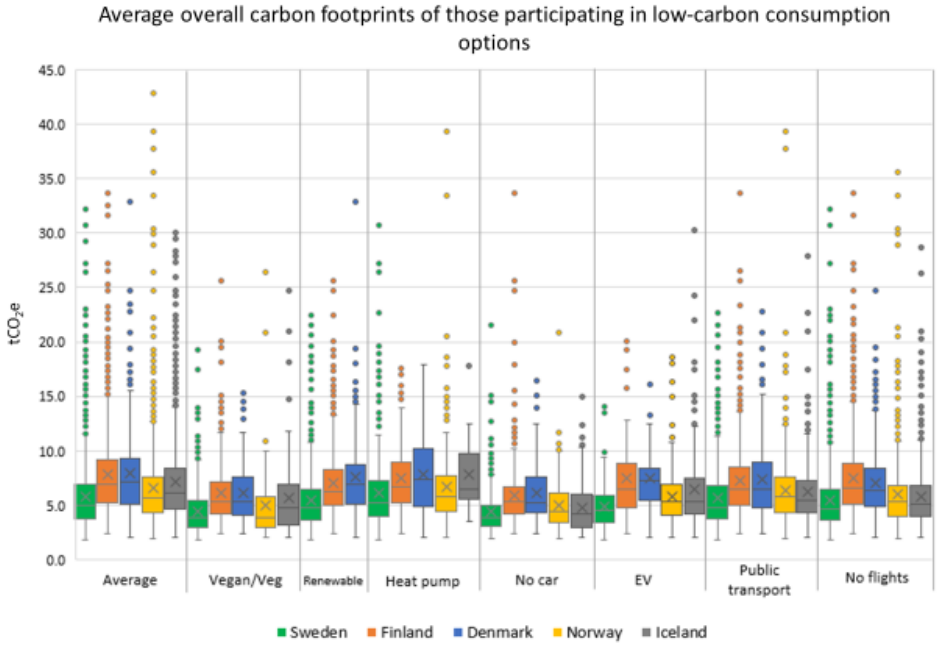

Figure A. Box and whisker plot of the average carbon footprints by country and LCCO. The line through the box indicates the median of the sample and "x" marks the mean of the sample. Above the median line is the 75th percentile and below the median line is the 25th percentile of the sample. The whiskers show the values up to the 1.5 interquartile ranges. Outliers are represented by the dots above the top whisker

Table B. Unstandardized beta from linear regression results of the combination of LCCOs for each country. Significance: $p<0.05$^, $p<0.01$*, $p<0.001$**

		Consumption choice (as compared to those with no low-carbon consumption choice)		Income (as compared to high income)		Household type (as compared to single household)			Degree of urbanization (as compared to rural)		Age (as compared to ages 55-80)		Gender (as compared to male)		Education level (as commpared to grad & post grad)			
		participates in both of the choices	participates in one of the choices	low income	medium income	couple	single parent	couple w/ kid(s)	urban	semi urban	ages 15 to 40	ages 41 to 54	nonbinary/ other	female	basic and secondary	college and vocational	(Constant)	Adjusted R2
Sweden	veg & heat pump	-0.31**	-0.09**	-0.25**	-0.15**	0.02	-0.20**	-0.08*	-0.18**	-0.06^	-0.05^	-0.01	-0.03	-0.06*	0	-0.03	8.91	0.13
Finland		-0.32**	-0.16**	-0.32**	-0.15**	-0.02	-0.11^	-0.08*	-0.16**	-0.03	0.02	0.04	-0.11	-0.07**	-0.02	0.04	9.21	0.16
Denmark		-0.31^	-0.27**	-0.32**	-0.19**	0	-0.09	-0.09	-0.24**	-0.02	-0.1	-0.07	-0.02	-0.02	-0.1	0.02	9.36	0.24
Iceland		0.03	-0.21**	-0.18**	-0.09*	-0.07^	-0.12^	-0.14**	-0.04	0	-0.02	-0.03	-0.26*	-0.04	0.05	0.03	9	0.08
Norway		-0.32^	-0.08*	-0.19**	-0.16**	0	-0.09	-0.12*	-0.15**	-0.05	-0.07^	0.01	-0.15	-0.07*	0.08^	0.01	8.95	0.1
Sweden	Veg & renewable	-0.38**	-0.15**	-0.24**	-0.15**	0	-0.22**	-0.12**	-0.16**	-0.06^	-0.01	0.02	-0.03	-0.06*	-0.03	-0.03	8.99	0.17
Finland		-0.35**	-0.19**	-0.32**	-0.14**	-0.02	-0.10^	-0.10**	-0.13**	-0.02	0.03	0.05^	-0.08	-0.05^	-0.04	0.03	9.27	0.2
Denmark		-0.31**	-0.17**	-0.32**	-0.20**	0.01	-0.07	-0.04	-0.22**	-0.02	-0.10^	-0.09	-0.03	-0.03	-0.11	0.03	9.37	0.23
Sweden	Veg & no car	-0.50**	-0.29**	-0.19**	-0.14**	-0.07*	-0.25**	-0.24**	-0.07*	-0.04	0.05	0.04	0.05	-0.04^	0	-0.03	8.93	0.21
Finland		-0.53**	-0.33**	-0.24**	-0.11**	-0.12**	-0.18**	-0.25**	-0.04	0	0.07*	0.06^	-0.02	-0.03	-0.01	0.03	9.22	0.26
Denmark		-0.59**	-0.29**	-0.28**	-0.17**	-0.10^	-0.18^	-0.23**	-0.1	0	-0.02	-0.02	0.04	-0.01	-0.11^	0	9.39	0.33
Iceland		-0.59**	-0.35**	-0.16**	-0.07^	-0.12**	-0.19*	-0.25**	-0.01	0.01	0.04	0	-0.23^	-0.03	0.02	0.02	9.03	0.14
Norway		-0.40**	-0.32**	-0.12**	-0.13**	-0.07^	-0.17^	-0.25**	-0.06^	-0.04	0.03	0.04	-0.13	-0.05^	0.07	0	8.97	0.16
Sweden	Veg & EV	-0.42**	-0.23**	-0.25**	-0.16**	0.02	-0.22**	-0.09*	-0.15**	-0.05^	-0.02	0.02	-0.01	-0.06*	-0.01	-0.04	8.9	0.16
Finland		0.04	-0.20**	-0.31**	-0.14**	-0.02	-0.11^	-0.09**	-0.14**	-0.03	0.03	0.05	-0.09	-0.06*	-0.02	0.04	9.18	0.16
Denmark		-0.33^	-0.23**	-0.32**	-0.18**	0.01	-0.09	-0.05	-0.21**	0.01	-0.10^	-0.07	-0.01	-0.01	-0.08	0.03	9.3	0.23
Iceland		-0.22	-0.19**	-0.20**	-0.10*	-0.05	-0.1	-0.12*	-0.04	0.01	-0.05	-0.04	-0.28*	-0.04	0.04	0.02	9.02	0.09
Norway		-0.48**	-0.14**	-0.21**	-0.16**	0.01	-0.08	-0.11*	-0.13**	-0.03	-0.06	0.02	-0.15	-0.07*	0.08	0	8.95	0.12
Sweden	Veg & public transportation	-0.19**	-0.04	-0.24**	-0.15**	0.01	-0.22**	-0.12**	-0.14**	-0.05	-0.03	0	0	-0.06*	0.01	-0.03	8.88	0.12
Finland		-0.21**	-0.11**	-0.31**	-0.14**	-0.03	-0.13*	-0.10**	-0.09**	-0.02	0.02	0.04	-0.08	-0.05*	-0.01	0.04	9.19	0.15
Denmark		-0.38**	-0.04	-0.31**	-0.19**	-0.03	-0.09	-0.1	-0.17**	-0.01	-0.08	-0.08	0.03	-0.01	-0.09	0.03	9.31	0.24
Iceland		-0.30**	-0.16**	-0.17**	-0.08^	-0.07^	-0.13^	-0.16**	-0.01	0.02	-0.01	-0.03	-0.26*	-0.04	0.03	0.02	9	0.09
Norway		-0.22*	-0.01	-0.18**	-0.16**	-0.01	-0.12	-0.15**	-0.13**	-0.05	-0.06	0.01	-0.16	-0.07*	0.07	0	8.94	0.1
Sweden	Veg & no flights	-0.68**	-0.41**	-0.21**	-0.14**	0	-0.22**	-0.13**	-0.17**	-0.07*	-0.01	0.02	0.02	-0.06*	0.02	-0.02	9.26	0.25
Finland		-0.57**	-0.34**	-0.28**	-0.12**	-0.03	-0.13*	-0.13**	-0.16**	-0.03	0.04	0.06^	-0.06	-0.05^	0	0.05^	9.45	0.22
Denmark		-0.67**	-0.39**	-0.28**	-0.13*	-0.03	-0.09	-0.12^	-0.22**	0.01	-0.11^	-0.08	0.04	-0.01	-0.04	0.06	9.58	0.39
Iceland		-0.68**	-0.37**	-0.15**	-0.07^	-0.06	-0.1	-0.14**	-0.07^	-0.06	-0.01	-0.02	-0.21^	-0.05^	0.06^	0.04	9.2	0.24
Norway		-0.61**	-0.30**	-0.15**	-0.12**	-0.01	-0.11	-0.14**	-0.17**	-0.06^	-0.05	0.02	-0.13	-0.07*	0.11*	0.02	9.15	0.2
Sweden	Heat pump & renewable	-0.13**	-0.08**	-0.25**	-0.15**	0.02	-0.21**	-0.09*	-0.18**	-0.06^	-0.08*	-0.02	-0.04	-0.07**	0	-0.03	8.94	0.12
Finland		-0.33**	-0.16**	-0.33**	-0.16**	-0.01	-0.11^	-0.06^	-0.17**	-0.04	-0.01	0.03	-0.13^	-0.07**	-0.04	0.03	9.3	0.18
Denmark		-0.21*	-0.07	-0.32**	-0.19**	0.01	-0.05	-0.03	-0.23**	-0.02	-0.12^	-0.1	-0.06	-0.04	-0.09	0.04	9.33	0.19
Sweden	Heat pump & no car	-0.34**	-0.15**	-0.24**	-0.15**	-0.02	-0.22**	-0.13**	-0.16**	-0.06^	-0.06^	-0.01	-0.01	-0.06*	0.01	-0.03	8.95	0.14
Finland		-0.60**	-0.31**	-0.28**	-0.13**	-0.10**	-0.20**	-0.19**	-0.11**	-0.03	0.01	0.03	-0.08	-0.07**	-0.01	0.03	9.31	0.24
Denmark		-0.57^	-0.31**	-0.28**	-0.16**	-0.07	-0.15	-0.20**	-0.16**	-0.03	-0.05	-0.03	-0.05	-0.05	-0.11^	0	9.43	0.28
Iceland		-0.22	-0.39**	-0.16**	-0.08^	-0.13**	-0.18*	-0.23**	-0.03	0.01	0	-0.02	-0.28*	-0.04	0.04	0.03	9.05	0.12
Norway		-0.37**	-0.14**	-0.17**	-0.15**	-0.02	-0.12	-0.15**	-0.12**	-0.05	-0.05	0.01	-0.16	-0.06^	0.09^	0.02	8.98	0.12
Sweden	Heat pump & EV	-0.30**	0.05^	-0.25**	-0.15**	0.02	-0.22**	-0.08*	-0.16**	-0.05^	-0.08*	-0.02	-0.03	-0.08**	0.01	-0.04	8.86	0.13
Finland		-0.21^	-0.10**	-0.33**	-0.15**	-0.02	-0.12*	-0.07^	-0.17**	-0.04	-0.01	0.02	-0.13	-0.08**	-0.02	0.04^	9.2	0.14
Denmark		-0.25	-0.03	-0.31**	-0.18**	0	-0.07	-0.04	-0.21**	0	-0.12^	-0.09	-0.05	-0.03	-0.08	0.04	9.26	0.18
Iceland		-0.47	-0.09*	-0.19**	-0.09*	-0.06	-0.1	-0.11*	-0.05	0.01	-0.06	-0.05	-0.32*	-0.05^	0.05	0.03	9.01	0.06
Norway		-0.16**	-0.07*	-0.21**	-0.17**	0.01	-0.09	-0.10^	-0.14**	-0.04	-0.08^	0.01	-0.17	-0.07*	0.09^	0.01	8.96	0.1

		Consumption choice (as compared to those with no low-carbon consumption choice)		Income (as compared to high income)		Household type (as compared to single household)			Degree of urbanization (as compared to rural)		Age (as compared to ages 55-80)		Gender (as compared to male)		Education level (as commpared to grad & post grad)			
		participates in both of the choices	participates in one of the choices	low income	medium income	couple	single parent	couple w/ kid(s)	urban	semi urban	ages 15 to 40	ages 41 to 54	nonbinary/ other	female	basic and secondary	college and vocational	(Constant)	Adjusted R2
Sweden	Heat pump & no car	-0.34**	-0.15**	-0.24**	-0.15**	-0.02	-0.22**	-0.13**	-0.16**	-0.06^	-0.06^	-0.01	-0.01	-0.06*	0.01	-0.03	8.95	0.14
Finland		-0.60**	-0.31**	-0.28**	-0.13**	-0.10**	-0.20**	-0.19**	-0.11**	-0.03	0.01	0.03	-0.08	-0.07**	-0.01	0.03	9.31	0.24
Denmark		-0.57^	-0.31**	-0.28**	-0.16**	-0.07	-0.15	-0.20**	-0.16**	-0.03	-0.05	-0.03	-0.05	-0.05	-0.11^	0	9.43	0.28
Iceland		-0.22	-0.39**	-0.16**	-0.08^	-0.13**	-0.18*	-0.23**	-0.03	0.01	0	-0.02	-0.28*	-0.04	0.04	0.03	9.05	0.12
Norway		-0.37**	-0.14**	-0.17**	-0.15**	-0.02	-0.12	-0.15**	-0.12**	-0.05	-0.05	0.01	-0.16	-0.06^	0.09^	0.02	8.98	0.12
Sweden	Heat pump & EV	-0.30**	0.05^	-0.25**	-0.15**	0.02	-0.22**	-0.08*	-0.16**	-0.05^	-0.08*	-0.02	-0.03	-0.08**	0.01	-0.04	8.86	0.13
Finland		-0.21^	-0.10**	-0.33**	-0.15**	-0.02	-0.12*	-0.07^	-0.17**	-0.04	-0.01	0.02	-0.13	-0.08**	-0.02	0.04^	9.2	0.14
Denmark		-0.25	-0.03	-0.31**	-0.18**	0	-0.07	-0.04	-0.21**	0	-0.12^	-0.09	-0.05	-0.03	-0.08	0.04	9.26	0.18
Iceland		-0.47	-0.09*	-0.19**	-0.09*	-0.06	-0.1	-0.11*	-0.05	0.01	-0.06	-0.05	-0.32*	-0.05^	0.05	0.03	9.01	0.06
Norway		-0.16**	-0.07*	-0.21**	-0.17**	0.01	-0.09	-0.10^	-0.14**	-0.04	-0.08^	0.01	-0.17	-0.07*	0.09^	0.01	8.96	0.1
Sweden	Heat pump & public transportation	0.08^	0.02	-0.24**	-0.14**	0.01	-0.22**	-0.10*	-0.17**	-0.06^	-0.09*	-0.02	-0.03	-0.07**	0.02	-0.03	8.85	0.11
Finland		-0.15^	-0.09**	-0.32**	-0.15**	-0.02	-0.13*	-0.08*	-0.12**	-0.03	0	0.03	-0.11	-0.07**	-0.01	0.04	9.21	0.15
Denmark		-0.17	-0.08^	-0.31**	-0.18**	-0.01	-0.07	-0.06	-0.19**	0	-0.11^	-0.1	-0.04	-0.03	-0.09	0.03	9.31	0.18
Iceland		-0.11	-0.11**	-0.18**	-0.08*	-0.07^	-0.11	-0.14**	-0.03	0.02	-0.04	-0.04	-0.31*	-0.05	0.05	0.03	9.01	0.07
Norway		0.02	-0.07^	-0.19**	-0.17**	-0.01	-0.12	-0.15**	-0.12**	-0.04	-0.06^	0.01	-0.16	-0.07*	0.08	0.01	8.96	0.09
Sweden	Heat pump & no flights	-0.44**	-0.44**	-0.23**	-0.14**	0.01	-0.21**	-0.09*	-0.20**	-0.07*	-0.10**	-0.02	-0.03	-0.08**	0.03	-0.02	9.28	0.19
Finland		-0.46**	-0.35**	-0.29**	-0.13**	-0.03	-0.14*	-0.09*	-0.20**	-0.05^	-0.01	0.03	-0.1	-0.07**	0	0.06*	9.5	0.2
Denmark		-0.54**	-0.39**	-0.27**	-0.13*	-0.01	-0.07	-0.09	-0.26**	-0.01	-0.14*	-0.10^	-0.04	-0.05	-0.04	0.07	9.58	0.32
Iceland		-0.29*	-0.39**	-0.16**	-0.08*	-0.06^	-0.08	-0.11*	-0.10*	-0.05	-0.06^	-0.04	-0.30*	-0.07*	0.08*	0.05^	9.23	0.22
Norway		-0.36**	-0.28**	-0.17**	-0.13**	0.01	-0.11	-0.10*	-0.18**	-0.06^	-0.09*	0	-0.14	-0.07*	0.12*	0.03	9.16	0.16
Sweden	Renewable & no car	-0.43**	-0.19**	-0.22**	-0.14**	-0.05^	-0.25**	-0.19**	-0.12**	-0.05^	-0.03	0.01	-0.01	-0.07*	-0.02	-0.03	9.04	0.19
Finland		-0.51**	-0.25**	-0.28**	-0.13**	-0.10**	-0.17**	-0.19**	-0.07*	-0.02	0.02	0.04	-0.05	-0.04	-0.04	0.02	9.35	0.27
Denmark		-0.41**	-0.22**	-0.29**	-0.20**	-0.04	-0.1	-0.11^	-0.16**	-0.02	-0.07	-0.07	-0.03	-0.05	-0.11^	0.02	9.43	0.25
Sweden	Renewable & EV	-0.29**	-0.13**	-0.26**	-0.16**	0.02	-0.22**	-0.08^	-0.17**	-0.06^	-0.08*	-0.01	-0.05	-0.08**	-0.01	-0.04	8.97	0.14
Finland		-0.24**	-0.19**	-0.33**	-0.15**	-0.02	-0.11^	-0.07*	-0.15**	-0.03	0	0.03	-0.11^	-0.06*	-0.04	0.03	9.28	0.18
Denmark		-0.16^	-0.06	-0.32**	-0.19**	0.01	-0.06	-0.02	-0.21**	0	-0.12^	-0.09	-0.05	-0.04	-0.08	0.04	9.29	0.18
Sweden	renewable & public transportation	-0.11**	-0.11**	-0.24**	-0.15**	0.01	-0.22**	-0.11**	-0.15**	-0.06^	-0.07^	-0.01	-0.03	-0.07*	0	-0.03	8.94	0.12
Finland		-0.25**	-0.19**	-0.32**	-0.15**	-0.03	-0.13*	-0.09*	-0.09**	-0.02	0	0.03	-0.08	-0.05^	-0.03	0.03	9.29	0.18
Denmark		-0.16*	-0.13*	-0.31**	-0.20**	0	-0.05	-0.04	-0.18	0.00**	-0.10^	-0.1	-0.04	-0.04	-0.09	0.04	9.35	0.19

		Consumption choice (as compared to those with no low-carbon consumption choice)		Income (as compared to high income)		Household type (as compared to single household)			Degree of urbanization (as compared to rural)		Age (as compared to ages 55-80)		Gender (as compared to male)		Education level (as commpared to grad & post grad)			
		participates in both of the choices	participates in one of the choices	low income	medium income	couple	single parent	couple w/ kid(s)	urban	semi urban	ages 15 to 40	ages 41 to 54	nonbinary/ other	female	basic and secondary	college and vocational	(Constant)	Adjusted R2
Sweden	Renewable & no flights	-0.61**	-0.45**	-0.24**	-0.14**	0	-0.22**	-0.10**	-0.20**	-0.08*	-0.09**	-0.01	-0.04	-0.08**	0	-0.03	9.4	0.21
Finland		-0.51**	-0.31**	-0.30**	-0.13**	-0.03	-0.12*	-0.09**	-0.17**	-0.04	0.01	0.04	-0.09	-0.05^	-0.03	0.04^	9.55	0.23
Denmark		-0.50**	-0.32**	-0.30*	-0.17**	0.02	-0.03	-0.02	-0.24**	-0.02	-0.14*	-0.11^	-0.03	-0.05	-0.06	0.07	9.59	0.29
Sweden	No car & public transportation	-0.20**	0.03	-0.22**	-0.14**	-0.03	-0.23**	-0.16**	-0.12**	-0.05^	-0.04	-0.01	0.01	-0.07*	0.02	-0.03	8.88	0.14
Finland		-0.33**	-0.10**	-0.28**	-0.12**	-0.08**	-0.18**	-0.17**	-0.04	-0.01	0.02	0.03	-0.06	-0.05^	0	0.04	9.21	0.19
Denmark		-0.29**	-0.03	-0.28**	-0.17**	-0.06	-0.11	-0.16*	-0.11^	0	-0.06	-0.06	-0.02	-0.04	-0.1	0.02	9.33	0.24
Iceland		-0.43**	-0.13**	-0.16**	-0.07^	-0.11*	-0.16*	-0.21**	-0.01	0.02	-0.01	-0.02	-0.29*	-0.04	0.03	0.02	9.03	0.11
Norway		-0.21**	-0.01	-0.15**	-0.15**	-0.04	-0.16^	-0.20**	-0.08*	-0.04	-0.03	0.02	-0.16	-0.06*	0.07	0.01	8.95	0.11
Sweden	No car & no flights	-0.77**	-0.41**	-0.17**	-0.12**	-0.10**	-0.26**	-0.25**	-0.10**	-0.06^	-0.03	0.02	0.05	-0.06**	0.04	-0.02	9.3	0.28
Finland		-0.78**	-0.38**	-0.20**	-0.08**	-0.16**	-0.24**	-0.29**	-0.08**	-0.02	0.04	0.04^	-0.01	-0.04^	0.02	0.06	9.57	0.32
Denmark		-0.78**	-0.35**	-0.22**	-0.10^	-0.13*	-0.17^	-0.27**	-0.09^	0.01	-0.05	-0.03	0.04	-0.04	-0.04	0.04	9.62	0.44
Iceland		-0.95**	-0.40**	-0.12**	-0.05^	-0.13*	-0.16*	-0.24**	-0.06^	-0.05	-0.01	-0.01	-0.26*	-0.07*	0.06^	0.04	9.28	0.31
Norway		-0.70**	-0.32**	-0.09*	-0.10**	-0.07^	-0.20*	-0.24**	-0.09**	-0.05	0	0.02	-0.11	-0.07*	0.13**	0.02	9.19	0.25
Sweden	EV & public transportation	-0.07	-0.01	-0.24**	-0.15**	0.01	-0.22**	-0.09*	-0.16**	-0.06^	-0.08*	-0.02	-0.03	-0.07**	0.01	-0.03	8.87	0.11
Finland		-0.03	-0.07**	-0.32**	-0.14**	-0.03	-0.14*	-0.09*	-0.12**	-0.03	0	0.03	-0.11	-0.06*	-0.01	0.04	9.19	0.14
Denmark		0.05	-0.10*	-0.30**	-0.19**	-0.01	-0.07	-0.06	-0.17**	0.01	-0.11^	-0.09	-0.05	-0.04	-0.09	0.04	9.31	0.18
Iceland		-0.16^	-0.15**	-0.19**	-0.09*	-0.06	-0.11	-0.13**	-0.02	0.02	-0.05	-0.05	-0.29*	-0.05	0.04	0.02	9.03	0.08
Norway		-0.07	-0.09**	-0.18**	-0.16**	0	-0.12	-0.14**	-0.10*	-0.03	-0.07^	0	-0.17	-0.07*	0.07	0	8.97	0.1
Sweden	EV & no flights	-0.62**	-0.44**	-0.24**	-0.15**	0.01	-0.22**	-0.07^	-0.20**	-0.07*	-0.11**	-0.01	-0.03	-0.08**	0.03	-0.03	9.28	0.22
Finland		-0.51**	-0.33**	-0.29**	-0.13**	-0.03	-0.13*	-0.09*	-0.19**	-0.04	0	0.03	-0.1	-0.07	0	0.06*	9.47	0.19
Denmark		-0.44**	-0.44**	-0.27**	-0.12*	0	-0.06	-0.07	-0.24**	-0.01	-0.15**	-0.11^	-0.02	-0.04	-0.01	0.08^	9.59	0.33
Iceland		-0.59**	-0.34**	-0.17**	-0.09*	-0.04	-0.06	-0.07^	-0.07^	-0.04	-0.10**	-0.06	-0.27*	-0.07*	0.07^	0.04	9.23	0.21
Norway		-0.47**	-0.29**	-0.21**	-0.15**	0.03	-0.09	-0.07	-0.16**	-0.04	-0.09*	0	-0.14	-0.08**	0.12*	0.02	9.17	0.19
Sweden	Public transportation & no flights	-0.46**	-0.41**	-0.23**	-0.15**	-0.01	-0.23**	-0.11**	-0.15**	-0.06^	-0.07^	-0.01	-0.01	-0.06*	0.02	-0.03	9.26	0.16
Finland		-0.43**	-0.31**	-0.30**	-0.13**	-0.04	-0.15*	-0.11**	-0.11**	-0.02	0.01	0.03	-0.08	-0.05*	0	0.05^	9.47	0.18
Denmark		-0.48**	-0.28**	-0.28**	-0.15**	-0.02	-0.06	-0.09	-0.14*	0.01	-0.11^	-0.11^	-0.01	-0.03	-0.05	0.05	9.55	0.27
Iceland		-0.55**	-0.35**	-0.14**	-0.06^	-0.08^	-0.11^	-0.15**	-0.03	-0.02	-0.03	-0.03	-0.26*	-0.05^	0.05	0.03	9.22	0.21
Norway		-0.35**	-0.21**	-0.16**	-0.14**	-0.01	-0.15	-0.15**	-0.10**	-0.04	-0.07^	0	-0.18	-0.07*	0.07	0	9.15	0.14

Table C. Spearman Rank Correlation for LCCOs.

		vegan/ veg	heat pump	renewable	no car	EV	public transport	no flights
vegan/veg	Sweden	1	-0.098**	,075**	,177**	0.017	,179**	0.008
	Denmark	1	-0.003	,099*	,174**	-0.025	,098*	,087*
	Finland	1	-0.012	,121**	,188**	-0.037	,182**	0.006
	Iceland	1	0	n/a	,164**	-0.015	,125**	-0.01
	Norway	1	-0.062*	n/a	,110**	0.021	0.037	-0.015
No car	Sweden	0.177**	-0.284**	-0.018	1	-,168**	,417**	-0.038
	Denmark	0.174**	-0.210**	-,092*	1	-,256**	,449**	-0.003
	Finland	0.188**	-0.195**	,051*	1	-,110**	,437**	-0.021
	Iceland	0.164**	-0.014	n/a	1	-,123**	,342**	-0.043
	Norway	0.110**	-0.206**	n/a	1	-,254**	,338**	-,131**
public transport	Sweden	0.179**	-0.169**	,072**	,417**	-0.026	1	-,102**
	Denmark	0.098*	-,225**	-0.032	,449**	-,119**	1	-0.023
	Finland	0.182**	-,158**	,097**	,437**	-0.029	1	-,085**
	Iceland	0.125**	-0.036	n/a	,342**	-0.031	1	-,062*
	Norway	0.037	-,088**	n/a	,338**	-,076**	1	-,160**
renewable	Sweden	0.075**	,087**	1	-0.018	,163**	,072**	,045*
	Denmark	0.099*	,132**	1	-,092*	,144**	-0.032	0.001
	Finland	0.121**	0.041	1	,051*	,070**	,097**	0.034

		vegan/ veg	heat pump	renewable	no car	EV	public transport	no flights
heat pump	Sweden	-,098**	1	,087**	-,284**	,140**	-,169**	0.01
	Denmark	-0.003	1	,132**	-,210**	,122**	-,225**	0.058
	Finland	-0.012	1	0.041	-,195**	,090**	-,158**	0.014
	Iceland	0	1	n/a	-0.014	-0.039	-0.036	0.005
	Norway	-,062*	1	n/a	-,206**	,090**	-,088**	0.02
EV	Sweden	0.017	,140**	,163**	-,168**	1	-0.026	0.003
	Denmark	-0.025	,122**	,144**	-,256**	1	-,119**	0.006
	Finland	-0.037	,090**	,070**	-,110**	1	-0.029	-,050*
	Iceland	-0.015	-0.039	n/a	-,123**	1	-0.031	-0.023
	Norway	0.021	,090**	n/a	-,254**	1	-,076**	-0.037
no flight	Sweden	0.008	0.01	,045*	-0.038	0.003	-,102**	1
	Denmark	,087*	0.058	0.001	-0.003	0.006	-0.023	1
	Finland	0.006	0.014	0.034	-0.021	-,050*	-,085**	1
	Iceland	-0.01	0.005	n/a	-0.043	-0.023	-,062*	1
	Norway	-0.015	0.02	n/a	-,131**	-0.037	-,160**	1

	<-0.1
	-0.1 to -0.3
	> -0.3

	< 0.1
	0.1 to 0.3
	> 0.3

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table D. The participation of each of the sociodemographic groups in each of the LCCO

		Total	vegan/ vegetarian	heat pump	renewable	no car	EV	public transport use	no flights
Income	low	2597	417	342	1786	725	168	1064	2138
	med	2325	293	410	1688	455	242	904	1845
	high	2510	314	463	1936	447	344	1075	1755
Household type	single	2114	323	232	1437	898	77	996	1687
	couple	3095	413	572	2236	477	345	1230	2369
	single parent	309	62	37	235	84	20	119	243
	couple w/ kid(s)	1914	226	374	1502	168	312	698	1439
Degree of urbanity	urban	3545	634	299	2720	1133	360	1975	2491
	towns & suburbs	2148	245	483	1444	328	236	701	1770
	rural	1739	145	433	1246	166	158	367	1477
Age	younger	2365	539	249	1820	722	187	1145	1715
	middle aged	1955	264	362	1458	335	266	719	1525
	older adults	3112	221	604	2132	570	301	1179	2498
Gender identity	other/nonbinary	148	47	14	95	66	9	83	127
	female	4529	741	707	3213	1121	396	2007	3528
	male	2755	236	494	2102	440	349	953	2083
Education level	basic & secondary	1440	186	213	932	369	98	510	1196
	college & vocational	3202	384	521	2340	655	285	1167	2545
	grad & post grad	2790	454	481	2138	603	371	1366	1997
Country	Denmark	515	104	52	231	187	53	292	385
	Finland	2084	276	244	1134	569	65	867	1846
	Iceland	1554	159	30	1554	151	194	377	851
	Norway	1297	76	365	1297	246	280	647	928
	Sweden	1982	409	524	1194	474	162	860	1728
Total		7432	1024	1215	5410	1627	754	3043	5738

Calculation pathways for footprint domains

This section describes how the greenhouse gas (GHG) emissions were calculated based on the methodology from the 1.5 degree carbon footprint survey calculator (https://carbonfootprint.hi.is/).

Diet

Survey respondents where ask to describe their diet as vegan, vegetarian, pescatarian, or omnivore. Following this question, respondents were asked to estimate their daily or weekly meat intake as well. To estimate the GHG emissions from this information, values from a Finnish governmental study, which used the FoodMin dietary model, a model based on a lifecycle analysis and nutrient review of different diets, was used (Saarinen et al., 2019). Table 1 shows the GHG coefficients used to calculate the emissions for the diet domain.

Table 1. GHG coefficients to estimate GHG emissions from diet based on values from Saarinen et al. (2019).

Diet	Kg CO_2e/2200 kcal/day	Kg CO_2e/year

Vegan/Vegetarian	3.1	1132
Pescatarian	3.5	1278
Omnivore (50g meat/day)	4.2	1533
Omnivore (70g meat/day)	4.6	1679
Omnivore (150g meat/day)	6.9	2519
Omnivore (300g meat/day)	8.8*	3213

*Additional category for highest meat consumption derived from Saarinen et al. (2019).

Housing Energy

Survey participants were asked about their type of housing, decade of construction of their home, size of home, and the heating and electricity sources for their homes. In addition to reporting their main heating source, respondents were also given the option to choose a secondary heating source if they had one, which was calculated as 20% of the total heating source and the main heating as 80% of the total. To calculate the emissions from housing energy, the emissions from heating and electricity use were added together and divided by the number of people in the household. Table 2 shows the values used for energy consumption per square meter. Tables 3 and 5 show the values for the coefficients used to calculate the emissions from household heating and Tables 4 and 5 show the coefficients used to calculate the emissions from household electricity.

Household GHG emissions from heating:
Energy consumption per m² * Size of home * kg CO_2e of primary heating type

Household GHG emissions from heating (with secondary heating system):
Energy consumption per m² * Size of home * (0.8 * kg CO_2e of primary heating type + 0.2 * kg CO_2e of secondary heating type)

Household GHG emissions from electricity:
Electricity demand * Size of home * kg CO_2e of electricity

To estimate the energy consumption per square meter, values were taken from Vimpari, J. (2021), which are based on the building's type and decade of construction. Table 2 shows the values used to calculate GHG emissions from heating.

Table 2. Energy consumption per m² (MWh/k-m^2/year) and the type of housing as taken from Vimpari, J. (2021).

Decade of construction	Apartment or other	Detached or semi-detached	Rowhouse
1950	0.167	0.18	0.182
1960	0.196	0.203	0.2
1970	0.178	0.18	0.181
1980	0.148	0.152	0.151

1990	0.158	0.153	0.151
2000	0.132	0.133	0.134

The GHG coefficients used to calculate the emissions from household heating were derived from Cherubini et al. (2009). These values are based on the CO_2e/MJ per unit of output for average values of European countries and include efficiency, power, capacity factor, lifetime, direct air pollutants, greenhouse gas emissions, solid wastes, liquid pollutants and land use (not including direct or indirect land se changes) (Cherubini et al., 2009). Table 3 shows the derived values.

Table 3. GHG coefficients from the average values from Cherubini et al. (2009) used to calculate emissions from heating.

Fuel	Kg CO_2e/MWh
Oil	378
Coal	468
Natural gas	279
Geothermal	11
Heat storing fireplace	45
Fossil oil boiler	378
Bio oil or firewood or pellet boiler	45
Solar panel heating or solar thermal heating	72
Heat pumps	Electricity* x 0.33

*Coefficient as listed in Table 4. An assumed coefficient of performance of 3 is used to calculate the emissions from heat pumps.

To estimate the district heating coefficients for each country, the GHG emissions from Cherubini et al. (2009) (listed in Table 3) and the national shares of country's district heating sources were used. Table 5 shows the final coefficients used in the calculation. Below are the energy mixes used to calculate each country's district heating coefficients:

For Finland, 2% of the district heating was calculated as oil, 37% as coal, 11% as natural gas, 40% as biomass and 10% as secondary heat of industry, based on statistics Finland (2019b) with slight modifications (other fossil [4%] and peat [15%] are included in coal class and other renewables [5%] and black liquor [1%] in biomass class, other energy sources [10%] were calculated as secondary heat of industry [0 kg CO_2e]).

For Iceland, district heating was calculated as 100% geothermal heat (Karlsdottir et al. 2020).

District heating for Denmark consists of 59% biomass, 2% solar energy, 19% natural gas, 9% non renewable waste (calculated as oil), 11% coal, and 1% oil (Euroheat & Power 2019). Biogas, geothermal energy and heat pumps are integrated to the biomass class (together 1-2%).

Sweden's district heating shares are 25% from waste to energy (calculated as 50% plastic [oil] and 50% bio [0kg CO_2e]), 41% biomass, 2% biogas from bio waste (calculated as 0kg CO_2e), 7% heat pumps (electricity * 0.33), 3% electricity, 2% coal and peat (calculated as coal) and 19% secondary heat from industries and flue gas condensation (0 emissions) (Energi Företagen 2020).

For Norway, the district heating shares are 48% from waste to energy, 5% from waste heat, 11% from heat pumps, 21% from biomass, 12 % from electricity and 3% from natural gas (Norsk fjernvarme 2020). Waste to energy is calculated as 50% of plastic (oil) and 50% of bio (0kg CO_2e). Waste heat is calculated as 0kg CO2e. Electricity is calculated as 100% hydro electricity and heat pumps have the electricity coefficient * 0.33 (coefficient of performance 3).

To estimate the emissions from electricity, the electricity demand had a value of 0.03 MWh/m²/year, which was derived by dividing the electricity consumption of a standard equipment household per capita, 1400 KWh/year, (Adato Energia 2013) by the average floor area per person in Finland, 41 m² (Statistics Finland 2019a). The coefficients for electricity are based on the country's electricity mix and the average GHG emissions for electricity and cogeneration by source taken from Cherubini et al (2009). Respondents from Finland, Sweden, Norway and Denmark were asked if they buy renewable electricity for their home. If this option was chosen, then a mix of 25% biomass, 25% wind, 25% hydro and 25% solar power was assumed. The electricity coefficients from Cherubini et al (2009) are presented in Table 4.

Table 4. GHG coefficients from the average values from Cherubini et al. (2009) used to calculate emissions from electricity.

Source of electricity	Kg CO_2e/MWh
Renewable electricity	54
Hydro	18
Wind	20
Solar PV	99
Biomass	81
Geothermal	22
Coal*	1079
Oil	899
Nuclear	63
Natural gas	540

* Minimum value from Cherubini et al. (2009) used to reflect cogeneration in Finland, Sweden and Denmark.

Below are the electricity mixes used to calculate the coefficients for electricity emissions and the final GHG coefficients are listed in Table 5.

The electricity mix for Finland consists of 18% hydro, 9% wind, 0.3% solar, 18% biomass, 1% waste, 35% nuclear, 8% coal, 0.3% oil, 6% natural gas and 4% peat (Finnish Energy 2019). Peat has the same coefficient value as coal and waste is calculated as 50% plastic (oil) and 50% bio (coefficient value 0).

For Iceland, 71% of the electricity mix was calculated as hydro and 29% as geothermal (Orkustofnun 2015).

Denmark's electricity mix consists of 12% coal, 7% natural gas, 1% oil, 56% wind, 3% solar and 21% biomass (Danish Energy Agency 2019).

The electricity mix for Sweden consists of 38.7% hydro, 11.8 % wind, 0.4% solar, 5% biomass, 3% waste, 39.5% nuclear, 0.2% oil, 0.4% natural gas and 1% coal (International Energy Agency 2019). Waste is calculated as 50% plastic (oil) and 50% bio (coefficient value 0).

For Norway, the electricity mix is made up of 92% hydro power, 2% geothermal and 6% wind (Statistics Norway 2020).

Table 5. Final GHG coefficients for heating and electricity in each country.

	District heat kg CO_2e/MWh	Electricity kg CO_2e/MWh
Finland	229	209
Iceland	11	19
Denmark	168	199
Sweden	79	67
Norway	111	18

Vehicle Possession and Use

Participants were asked to report the number of vehicles in the household and for each vehicle to state the yearly kilometers driven, type of fuel and fuel consumption. Respondents also had the option to report if their vehicle used a secondary fuel and what percentage they used the secondary fuel. The GHG coefficients used to estimate the emissions were derived from values from Cherubini et al. (2009) and can be seen in Table 6.

Table 6. Greenhouse gas coefficients used to calculate the personal share of yearly driving emissions and conversion values. (Cherubini et al. 2009).

	MJ to liter	MJ to kg	Coefficient	Unit
Petrol	34.2		3.003	kg CO_2e/liter
Bioethanol*	23.4		1.003	kg CO_2e/liter
Diesel	38.6		3.189	kg CO_2e/liter
Biodiesel**	38.6		1.732	kg CO_2e/liter

Natural gas		39MJ/m^3 0.72kg/m^3	3.761	kg CO_2e/liter
Biogas		39MJ/m^3 0.72kg/m^3	1.382	kg CO_2e/liter

*From sugar cane and other crops
**From rapeseed, soy, and sunflower

To calculate the vehicle emissions, the yearly driven kilometers were multiplied by the fuel consumption of the vehicle and the GHG coefficient of the vehicle´s fuel as listed in Table 6. This was then divided by the number of people in the household.

The emissions from electric vehicles were calculated by multiplying yearly driven kilometers by vehicle's electricity consumption (0.0125 MWh/100km) by the GHG coefficient of electricity as shown in Table 4 and divided by the number of people in the household. The production and maintenance emissions from the possession of vehicles is estimated by using the mean values from Dillman et al. (2020) as shown in Table 7 and an assumed vehicle lifetime of 184,000 km from the same Dillman et al. study.

Table 7. GHG emissions from Dillman et al. (2020) used for the calculation of production and maintenance of vehicle possession in the footprint calculator.

	Production (tCO_2eq)	Maintenance (gCO_2eq/km)
BEV	10.8	10.1
Petrol	6.6	12
Diesel	6.1	10.1

Production emissions:
(production emissions from fuel type of vehicle/lifetime km)*yearly km driven, divided by number of people in the household.

Maintenance emissions:
maintenance emissions from fuel type of vehicle * yearly km driven, divided by number of people in the household.

Public Transport

Survey respondents were asked to estimate the number of kilometers that they traveled by public transportation during an average week in the past twelve months. The coefficient used to estimate the emissions from public transportation use was derived from an average value of direct greenhouse gas emissions from different public transportation methods (natural gas bus, commuter train, tram, and metro) based on data from VTT Technical Research Centre of Finland (2021). The indirect greenhouse gas emissions from vehicles, infrastructure, fuel production and supply chain were taken from Chester & Horvath (2009) and were added to all transport modes before calculating the average public transportation coefficient (0.12 kg CO_2e /PKT) which was used in the calculator. The number of kilometers traveled that participants reported was multiplied by 0.12 kg CO_2e to get the GHG emissions of local travel.

Leisure Travel

Participants were asked to report the number of leisure trips that they had taken away from their home region along with the mode of travel and whether the trip was short, medium or long distance (assumed distances are listed in Table 8). The emission factors used to calculate the emissions from leisure travel were based on values from Chester & Horvath (2009) and Aamaas et al. (2013) and include both direct and indirect emissions calculate the emissions from leisure travel.

Table 8. Distances and GHG coefficients used to calculate leisure travel emissions from each travel mode. Distances are multiplied by two to include the return trip. GHG coefficient based on values from Chester & Horvath (2009) and Aamaas et al. (2013) and assume typical occupancy.

	Short distance	Medium distance	Long distance	GHG coefficient (Kg CO_2e/km/person)
Ferry	250 km x 2	1140 km x 2	6000 km x 2	0.36
Airplane	500 km x 2	2000 km x 2	8000 km x 2	0.34 (short) 0.28 (medium & long)
Train	500 km x 2	2000 km x 2	8000 km x 2	0.08
Bus	500 km x 2	2000 km x 2	8000 km x 2	0.15

Goods & Services

To determine the greenhouse gas emissions resulting from the consumption of goods and services, respondents were asked to report their personal purchases over the past year in the categories listed in Table 9, which follow the Classification of Individual Consumption According to Purpose (COICOP) consumption categories (United Nations, 2018). The COICOP categories are used with the Exiobase IO model (Stadler et al., 2018), following the concordance matrix from Ottelin et al. (2020). The 2015 Exiobase was used and modified with the inflation corrections for the year of the survey to update the emission intensities. Currency exchange rates (EUR/EUR=1) are from the same year, 2020, as follows: SEK/EUR=10.4865; NOK/EUR=10.7238; ISK/EUR=154.59; DKK/EUR=7.4543 (European Central Bank, 2021). The GHG emissions from goods and services were calculated by multiplying the amount of money reported as spent in each category by the coefficient. Coefficients for different categories are presented in Table 9.

Table 9. Exiobase IO model based greenhouse gas emission (kg) per Euro for different consumption categories in each country.

	Denmark	Finland	Sweden	Norway	Iceland
Alcohol and cigarettes	0.26	0.19	0.14	0.12	0.11
Clothing and footwear	0.07	0.10	0.07	0.14	0.14
Interior design and housekeeping	0.25	0.41	0.23	0.19	0.23
Health	0.18	0.17	0.09	0.10	0.10
Recreation, sports, and culture	0.16	0.15	0.08	0.12	0.13
Restaurants	0.09	0.19	0.10	0.13	0.12
Hotels	0.09	0.19	0.10	0.13	0.12
Electronics	0.28	0.80	0.33	0.32	0.44
Other goods and services	0.20	0.24	0.13	0.18	0.18

The respondents were asked to use a slider to select the spending on each category. They were offered default values based on Alhola et al. (2019) based on the annual average personal consumption of Finnish consumers.

Pets

Respondents to were asked about the number and type of pets in their household. The yearly GHG emissions for a dog were estimated as 630 kg CO_2e following Yavor et al. (2020). To calculate the emissions of a cat, the emissions of a dog were divided in half (315 kg CO_2e) based on the results of Herrera-Camacho et al. (2017). Pets listed as "other" were given zero emissions. The sum of the emissions from all of the reported pets in the household was divided by the number of people in the household.

Second Homes

Respondents were asked if they owned a second home or summer cottage. The estimation for the GHG emissions for owing a second home was taken from Ottelin et al. (2015), which was based on results from a Finnish household (884 kg CO_2e/year) and divided by the size of the household.

References:

Aamaas, B., Borken-Kleefeld, J., & Peters, G. P. (2013). The climate impact of travel behavior: A German case study with illustrative mitigation options. Environmental Science and Policy, 33, p. 273–282.

Adato Energia. Kotitalouksien sähkönkäyttö 2011. Tutkimusraportti 26.2.2013.

Alhola, K., Mäenpää, I., Nissinen, A., Nurmela, J., Salo, M. & H. Savolainen (2019): Carbon footprint and raw material requirement of public procurement and household consumption in Finland – Results obtained using the ENVIMAT-model. (Ed. Nissinen, A. & H. Savolainen): SUOMEN YMPÄRISTÖKESKUKSEN RAPORTTEJA 15; 2019. Finnish Environmental Institute (SYKE), Helsinki, p. 33.

Cherubini, F., Bird, N. D., Cowie, A., Jungmeier, G., Schlamadinger, B. & Woess-Gallasch, S. (2009): Energy- and greenhouse gas-based LCA of biofuel and bioenergy systems: Key issues, ranges and recommendations. Resources, Conservation and Recycling, Volume 53, Issue 8, p. 442. *https://doi.org/10.1016/j.resconrec.2009.03.013.*

Chester, M. & A. Horvath (2009): Environmental assessment of passenger transportation should include infrastructure and supply chains. Environmental Research Letters, Volume 4, Number 2, 9p.

Danish Energy Agency (2019): Energy Statistics 2019. Accessed 5/10/2021. *https://ens.dk/sites/ens.dk/files/Statistik/energystatistics2019_webtilg.pdf*

Dillman, K. J., Árnadóttir, Á., Heinonen, J., Czepkiewicz, M. & Davíðsdóttir, B. 2020. Review and meta-analysis of EVs: Embodied emissions and environmental breakeven. *Sustainability,* 12, 9390.

Energi Företagen (2020): Fjärrvärmeproduktion - Fjärrvärmens bränslemix 2020. Accessed 23/9/2021. *https://www.energiforetagen.se/energifakta/fjarrvarme/fjarrvarmeproduktion/*

Euroheat & Power (2019): District Energy in Denmark 2017. Accessed 27/09/2021. *https://www.euroheat.org/knowledge-hub/district-energy-denmark/*

European Central Bank (2021): Statistics. ECB/Eurosystem policy and exchange rates. Euro foreign exchange reference rates. Accessed 20.10.2021. *https://www.ecb.europa.eu/stats/policy_and_exchange_rates/html/index.en.html*

EuroStat (2018): Distribution of income by quantiles - EU-SILC and ECHP surveys. Accessed 27/09/2021. *https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di01&lang=en*

Finnish Energy (2019): Monthly electricity statistics. Accessed 4/3/2021. *https://energia.fi/en*

GEMIS (2008): Data set on bioenergy for heat, electricity and transportation biofuel systems. Joanneum Research, Graz, Austria (version expanded and implemented). Original Software tool; website: *www.gemis.de; 2008.*

Herrera-Camacho, J., Baltierra-Trejo, E., Taboada-González, P.A., Fernanda Gonzalez, L. & L. Marquez-Benavides (2017): Environmental Footprint of Domestic Dogs and Cats. Preprints 2017, 2017, 07, 0004. (doi: 10.20944/preprints 201707.0004.v1)

International Energy Agency - IEA (2019): Electricity generation by source, Sweden 1990-2019. Accessed 5/10/2021. *https://www.iea.org/countries/sweden*

Ivanova, D., Stadler, K., Steen-Olsen, K., Wood, R., Vita, G., Tukker, A. and Hertwich, E.G. (2016), Environmental Impact Assessment of Household Consumption. Journal of Industrial Ecology, 20: 526-536. *https://doi.org/10.1111/jiec.12371*

Karlsdottir, M. R., Heinonen, J., Palsson, H., Palsson, O. P. (2020): Life cycle assessment of a geothermal combined heat and power plant basedon high temperature utilization. Geothermics 84 (2020) 101727. https://doi.org/10.1016/j.geothermics.2019.101727

Norsk fjernvarme (2020): Energikilder. Fjernvarme - Energikilder 2020. Accessed 23/9/2021. *https://www.fjernvarme.no/fakta/energikilder*

Orkustofnun/National Energy Authority of Iceland (2015): Generation of electricity in Iceland from 1915. Accessed 4/10/2020. *https://nea.is/the-national-energy-authority/energy statistics/generation-of-electricity/*

Ottelin, J., Heinonen, J., & Junnila, S. (2015). New energy efficient housing has reduced carbon footprints in outer but not in inner urban areas. Environmental science & technology, 49(16), 9574- 9583.

Ottelin, J., Cetinay, H. & Behrens, P. 2020. Rebound effects may jeopardize the resource savings of circular consumption: evidence from household material footprints. *Environmental Research Letters,* 15, 104044.

Saarinen, M.; Kaljonen, M.; Niemi, J.; Antikainen, R.; Hakala, K.; Hartikainen, H.; Heikkinen, J.; Joensuu, K.; Lehtonen, H.; Mattila, T.; Nisonen, S.; Ketoja, E.; Knuuttila, M.; Regina, K.; Rikkonen, P.; Seppälä, J; Varho, V. (2019): Effects of dietary change and policy mix supporting the change - End report of the FoodMin project. Publications of the Governmenť s analysis, assessment and research activities 2019:47. Prime Minister's Office, Helsinki, 160 pp.

Stadler, K., Wood, R., Bulavskaya, T., Södersten, C. J., Simas, M., Schmidt, S., Usubiaga, A., Acosta-Fernández, J., Kuenen, J. & Bruckner, M. 2018. EXIOBASE 3: Developing a time series of detailed environmentally extended multi-regional input-output tables. *Journal of Industrial Ecology,* 22, 502-515.

Statistics Finland (2019a): Dwellings and housing conditions. Overview 2019, 2. Household dwelling units and housing conditions 2019. Helsinki, Statistics Finland. Accessed 19/8/2021. *http://www.stat.fi/til/asas/2019/01/asas_2019_01_2020-10-14_kat_002_en.html*

Statistics Finland (2019b): Production of electricity and heat. Appendix table 1. Electricity and heat production by production mode and fuel in 2019. Helsinki, Statistics Finland. Accessed 14/9/2021. *https://www.stat.fi/til/salatuo/2019/salatuo_2019_2020-11-03_tau_001_en.html*

Statistics Finland (2020): Cost-of-living index (1914:1-6=100), annual data, 1860-2020. Years 2016

to 2020. Accessed 27.10.2021. *https://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__hin__khi__vv/statfin_khi_pxt_11xy.px/*

Statistics Norway (2020): Electricity balance (MWh), by production and consumption, contents and month. Accessed 5/10/2021. *https://www.ssb.no/en/statbank/table/12824/*

United Nations (2018): Classification of Individual Consumption According to Purpose (COICOP) 2018. Statistical Papers. Department of Economic and Social Affairs. Statistics Division. UNITED NATIONS PUBLICATION. Series M No. 99. United Nations, New York, 265 pp.

Vimpari, J. (2021): Should energy efficiency subsidies be tied into housing prices? Environmental Research Letters, 16, 064027.

VTT Technical Research Centre of Finland Ltd. LIPASTO unit emissions -database. (Accessed 16.6.2021). Available at: *lipasto.vtt.fi/yksikkopaastot/*

Yavor, K.M., Lehmann, A. & M. Finkbeiner (2020): Environmental Impacts of a Pet Dog: An LCA Case Study. *Sustainability* 2020, *12*, 3394. *https://doi.org/10.3390/su12083394*