

Fig. 35: Environment and energy data

		ETH Domain 2015	ETH Domain 2016	ETH Zurich Total	EPFL Total	PSI Total	WSL Total	Empa Total	Eawag Total	ETH Domain Trend 2017 ¹
Basic data										
Energy reference area (ERA) ²	m ²	1,434,194	1,471,508	686,431	435,389	169,900	28,246	123,442	28,100	
Full-time equivalent ³	FTE	34,827	35,310	19,847	11,164	2,023	659	972	645	
Energy⁴										
Final energy, net⁷	kWh/a	436,876,537	430,768,848	171,510,283	98,296,921	133,107,126	4,877,241	18,609,536	4,367,741	427,385,195.4
Electricity, net (not incl. self-produced)	kWh/a	365,894,796	360,612,906	135,086,000	81,504,656	125,870,773	3,064,754	11,687,273	3,399,450	357,769,426
Consumption of uncertified electricity	kWh/a	56,595,832	60,638,256	9,706,000	1,466,261	47,490,157	42,000	1,933,838	0	
Consumption of certified electricity	kWh/a	316,964,326	306,751,078	125,380,000	84,880,985	78,380,616	3,022,754	11,687,273	3,399,450	
– Electricity (without naturemade star)	kWh/a	302,657,249	292,399,481	121,380,000	78,034,040	78,380,616	2,917,552	11,687,273	0	
– Photovoltaic naturemade star	kWh/a	2,135,781	2,078,078	0	2,000,000	0	52,601	0	25,477	
– Hydro power naturemade star	kWh/a	12,171,296	12,214,009	4,000,000	4,846,945	0	52,601	0	3,314,463	
– Wind naturemade star	kWh/a	0	0	0	0	0	0	0	59,510	
Sale of electricity	kWh/a	-7,665,362	-6,776,428	0	-4,842,590	0	0	-1,933,838	0	
Heat	kWh/a	68,494,879	67,627,075	35,383,000	16,442,265	6,901,353	1,349,078	6,717,605	833,774	
Fuel oil	kWh/a	3,468,116	4,540,980	710,000	3,215,696	423,773	165,951	0	25,560	
Natural gas	kWh/a	57,795,344	59,752,463	39,701,000	13,168,044	0	0	6,869,872	13,547	
Natural gas BHKW	kWh/a	0	0	0	0	0	0	0	0	
District heating	kWh/a	31,108,657	28,730,003	20,482,000	333,356	6,477,580	0	642,400	794,667	
Woodchip	kWh/a	1,520,337	1,463,127	280,000	0	0	1,183,127	0	0	
Sale of heat	kWh/a	-25,397,575	-26,859,498	-25,790,000	-274,831	0	0	-794,667	0	
Fuels (own vehicles)	kWh/a	2,486,862	2,528,867	1,041,283	350,000	335,000	463,409	204,658	134,517	
Energy: additional information										
Energy costs, electricity and heat ⁵	CHF/a	50,046,943	47,499,551	23,967,909	10,075,657	11,989,081	498,036	1,733,420	502,221	48,189,035.6
Self-generated renewable electricity	kWh/a	520,813	520,813	217,100	0	102,550	28,000	29,159	144,004	
Total sale to third parties	kWh/a	-33,062,937	-33,635,926	-25,790,000	-5,117,421	0	0	-2,728,505	0	
Water (drinking water)	m³	630,749	649,066	324,846	178,459	109,325	8,659	21,500	6,277	659,928
Materials										
Paper	kg	341,961	411,592	251,500	105,236	32,228	7,852	7,868	6,908	344,133
Paper, new fibre	kg	120,462	173,722	136,500	21,970	10,074	3,054	1,892	232	114,284
Paper, recycled	kg	221,499	237,870	115,000	83,266	22,154	4,798	5,976	6,676	229,849
Key figures: environmental impact										
Primary energy⁶	kWh/a	625,358,315	616,876,534	215,354,981	119,883,747	242,857,836	11,070,532	22,416,412	5,293,027	
Proportion of renewable energies	%	63	1	1	1	1	0	1	1	
CO₂ emissions	t CO₂/a	36,820	36,776	15,305	7,298	10,660	684	2,512	317	

¹ Provisional figures for the year under review (trend), as at: start of March 2017.

² The energy reference area is the sum of all gross floor areas, above and below ground, which must be heated or air-conditioned in order to be used.

³ The FTE (full-time equivalent) value listed here was supplemented by the number of students with an FTE value of 0.68 to produce the consumption per person.

⁴ The key figures indicated for electricity and heat show the total consumption of both for buildings, as well as for teaching and research activities.

⁵ The key indicator "energy costs" shows all expenditure (cash out) for the provision of energy (heat and electricity).

⁶ In energy economics, primary energy as the energy is defined that is available using the original forms or resources of energy, such as fuel (e.g. coal or natural gas), as well as energy carriers such as sun, wind or nuclear fuels.

⁷ Final energy is the portion of the primary energy that is left after losses due to energy conversion and transmission, after it is supplied via the consumer's domestic connection. Final energy basically corresponds to the purchased energy.