

Key figures environment

Environmental impact

Environmental impact	2015 UBP	2016 UBP	Deviation %
Electricity	101,508	101,708	0.2
Combustibles	120,734	113,793	-5.7
Fuels	18,944	15,771	-16.8
Disposal	3,183	3,430	7.7
Solvents	1,492	1,460	-2.1
Water and waste water	2,948	2,631	-10.7
Total environmental impact	248,809	238,793	-4.0

UBP = Ecopoints in million UBP in accordance with the Swiss Ecological Scarcity Method (version 2013)

Material usage

Material usage	2015 Metric tons	2016 Metric tons	Deviation %
Raw material plastics	62,734	66,612	6.2
Raw material metal	52,591	60,154	14.4
Raw material mineral	186,237	175,372	-5.8
Other raw materials	531	501	-5.6
Semi-finished products	36,505	41,372	13.3
Finished products	46,209	46,410	0.4
Total material usage	384,807	390,421	1.5

Energy consumption

Energy consumption	Unit	2015	2016	Deviation %
Electricity	GWh	222.3	224.6	1.0
District heating	GWh	13.8	14.1	2.5
Combustibles				
Natural gas	m ³	51,232,158	47,340,113	-7.6
Biogas	m ³	817,436	874,135	6.9
Liquified petroleum gas (LPG)	Metric tons	6,227.4	6,167.4	-1.0
Diesel for electricity generation	l	220,693	142,586	-35.4
Heating oil extra light	Metric tons	57.6	39.0	-32.3
Solid fuels	Metric tons	6,641.3	5,962.7	-10.2
Fuels				
Gasoline	l	241,861	199,556	-17.5
Diesel	l	3,004,475	2,476,475	-17.6
Liquified petroleum gas (LPG)	kg	184,875	171,675	-7.1

	2015 TJ	2016 TJ	Deviation %
Energy consumption			
Electricity	800.4	808.5	1.0
District heating	49.6	50.9	2.5
Combustibles	2,308.9	2,150.2	-6.9
Natural gas	1,864.9	1,723.2	-7.6
Biogas	29.8	31.8	6.9
Liquified petroleum gas (LPG)	288.3	285.6	-1.0
Diesel for electricity generation	7.9	5.1	-35.4
Heating oil extra light	2.5	1.7	-32.3
Solid fuels	115.5	102.8	-10.2
Fuels (gasoline, diesel, LPG)	124.1	103.2	-16.8
Total energy consumption	3,283.0	3,112.8	-5.2

Electricity mix

Electricity mix 2016	GWh	Renewable %	Fossil %	Nuclear %	Others %
Europe	166.8	23.2	53.7	21.8	1.3
USA	6.8	9.7	70.2	19.4	0.7
China	5.6	19.1	78.8	2.1	0.0
India	1.4	16.4	81.8	1.8	0.0
Green electricity	44.0	100.0	0.0	0.0	0.0
Total electricity mix	224.6	37.7	44.4	16.9	1.0

Electricity mix 2015	GWh	Renewable %	Fossil %	Nuclear %	Others %
Europe	168.8	22.8	53.2	22.7	1.3
USA	6.8	9.7	70.2	19.4	0.7
China	4.6	19.1	78.8	2.1	0.0
India	1.1	16.4	81.8	1.8	0.0
Green electricity	41.0	100.0	0.0	0.0	0.0
Total electricity mix	222.3	36.5	44.6	17.9	1.0

Water and waste water

Water	2015 m ³	2016 m ³	Deviation %
Drinking water	330,744	292,681	-11.5
Well water	545,049	533,850	-2.1
River and lake water	289,003	299,466	3.6
Rain water	5,560	7,949	43.0
Total water	1,170,356	1,133,946	-3.1

Waste water	2015 m ³	2016 m ³	Deviation %
Domestic waste water	291,039	224,110	-23.0
Process water ceramic	607,529	602,124	-0.9
Other waste water	28,485	20,764	-27.1
Total waste water	927,053	846,998	-8.6

Emissions

Absolute CO ₂ emissions	2015 Metric tons	2016 Metric tons	Deviation %
from combustibles (Scope 1)	134,280	127,268	-5.2
from fuels (Scope 1)	9,162	7,613	-16.9
from process emissions (Scope 1)	308	455	47.9
from electricity (Scope 2)	114,105	114,705	0.5
from district heating (Scope 2)	54	67	24.7
Total absolute CO₂ emissions	257,909	250,108	-3.0

Calculation of CO₂ emissions according to IPCC 2013

Air emissions		2015 Kilogram	2016 Kilogram	Deviation %
NO _x	direct	77,663	69,105	-11.0
	indirect	153,716	156,090	1.5
	Total NO_x	231,379	225,195	-2.7
SO ₂	direct	2,160	1,880	-13.0
	indirect	296,919	302,009	1.7
	Total SO₂	299,079	303,889	1.6
NMVOC	direct	107,926	99,620	-7.7
	indirect	20,346	20,224	-0.6
	Total NMVOC	128,272	119,844	-6.6
Dust (PM10)	direct	6,341	5,532	-12.8
	indirect	32,227	32,719	1.5
	Total dust	38,568	38,251	-0.8
CFC11 equivalents	direct	0.4	1.8	346.0
	indirect	9.5	9.4	-1.1
	Total CFC11 equivalents	9.9	11.2	12.6

Calculation based on Ecoinvent data version 3.1

Waste

Waste	2015 Metric tons	2016 Metric tons	Deviation %
to incineration	1,686	2,163	28.3
to inert waste landfill	20,127	16,787	-16.6
to mixed waste landfill	1,023	1,330	30.0
to external recycling	59,361	58,558	-1.4
to hazardous waste incineration	479	417	-12.9
to hazardous waste recycling	729	609	-16.5
Total waste	83,405	79,864	-4.2

Key figures employees and society

Workforce

Workforce as of December 31	2015	Share %	2016	Share %
Germany	3,319	27.4	3,282	28.3
Poland	1,532	12.6	1,515	13.1
Switzerland	1,333	11.0	1,336	11.5
France	693	5.7	691	6.0
China	665	5.5	637	5.5
Ukraine	1,089	9.0	627	5.4
Austria	541	4.5	532	4.6
Italy	425	3.5	434	3.7
Sweden	431	3.5	418	3.6
Others	2,098	17.3	2,120	18.3
Total	12,126	100.0	11,592	100.0
Production	7,596	62.6	7,157	61.7
Marketing and sales	2,903	23.9	2,837	24.5
Administration	939	7.8	950	8.2
Research and development	433	3.6	415	3.6
Apprentices	255	2.1	233	2.0
Total	12,126	100.0	11,592	100.0
Permanent	9,723	80.2	9,100	78.5
Temporary	2,403	19.8	2,492	21.5
Total	12,126	100.0	11,592	100.0
Full-time	11,723	96.7	11,192	96.6
Part-time	403	3.3	400	3.4
Total	12,126	100.0	11,592	100.0
Management	195	1.6	206	1.8
Employees	11,931	98.4	11,386	98.2
Total	12,126	100.0	11,592	100.0

Information in full-time equivalents

Diversity

Diversity as of December 31, 2016		Management %	Employees %	Total %
Proportion of female employees		9.2	24	24
Age structure	> 45 years	75	40	40
	30 - 45 years	25	43	43
	< 30 years	0	17	17

Diversity as of December 31, 2015		Management %	Employees %	Total %
Proportion of female employees		8.2	25	25
Age structure	> 45 years	72	39	40
	30 - 45 years	28	44	44
	< 30 years	0	17	16

Fluctuation

Fluctuation excl. natural departures		2015	Rate %	2016	Rate %
Age group	> 45 years	271	5.9	432	9.7
	30 - 45 years	332	7.8	504	12.5
	< 30 years	141	14.2	135	14.0
Gender	Male	503	6.8	670	9.4
	Female	241	9.7	401	17.4
Region	Germany	79	2.8	70	2.6
	Poland	19	2.9	100	14.6
	Switzerland	105	8.6	81	6.6
	France	39	5.8	50	7.9
	China	15	6.1	18	7.3
	Ukraine	220	18.8	512	57.9
	Austria	28	5.6	35	6.9
	Italy	42	9.5	12	2.9
	Sweden	18	4.3	21	5.3
	Others	179	10.4	172	10.0
Total fluctuation excl. natural departures		744	7.5	1,071	11.3

Fluctuation incl. natural departures		2015	Rate %	2016	Rate %
Age group	> 45 years	411	8.9	558	12.5
	30 - 45 years	336	7.8	507	12.5
	< 30 years	143	14.4	137	14.2
Gender	Male	610	8.2	758	10.6
	Female	280	11.3	444	19.2
Region	Germany	139	4.9	129	4.7
	Poland	25	3.8	103	15.0
	Switzerland	126	10.3	100	8.2
	France	53	7.9	67	10.6
	China	23	9.4	20	8.1
	Ukraine	221	18.9	515	58.2
	Austria	29	5.8	37	7.3
	Italy	46	10.4	14	3.4
	Sweden	21	5.0	25	6.3
	Others	207	12.0	192	11.1
Total fluctuation incl. natural departures		890	9.0	1,202	12.7

Information in headcounts
Natural departures includes retirements

Training and education

Training and education	Hours per employee	2015	2016	Deviation %
Women		13.0	10.0	-23.1
Men		15.0	9.9	-34.0
Management		22.4	9.2	-58.9
Other employees		14.4	10.0	-30.6
Total training and education		14.5	10.0	-31.0

Personnel expenses

Personnel expenses	2015 MCHF	2016 MCHF	Deviation %
Wages and salaries	508.8	525.1	3.2
Pension contributions	37.2	35.7	-4.0
Other social benefits	94.4	101.5	7.5
Other personnel expenses	31.2	39.7	27.2
Total personnel expenses	671.6	702.0	4.5

Social engagement

Social engagement	Unit	2015	2016	Deviation %
Donations and contributions	MCHF	2.6	3.7	42.3
Orders to social institutions	MCHF	6.2	6.3	1.6
Charitable work	Hours	1,657	2,336	41.0

Health and Safety

Health and Safety	2015	2016	Deviation %
Number of occupational accidents	238	202	-15.1
Accident frequency rate (AFR)	11.4	9.8	-14.0
Lost days due to occupational accidents	4,314	4,305	-0.2
Accident severity rate (ASR)	206.2	209.4	1.6

Accident frequency rate (AFR) = Number of occupational accidents per million working hours performed

Accident severity rate (ASR) = Number of lost working days due to accidents per million working hours performed

Absenteeism rate per region 2016	Illness %	Accident %	Total %
Europe	4.78	0.15	4.93
Asia	1.26	0.04	1.30
USA	3.05	0.02	3.07
Others	0.58	0.00	0.58
Total absenteeism rate	4.46	0.14	4.60

Absenteeism rate per region 2015	Illness %	Accident %	Total %
Europe	4.54	0.14	4.68
Asia	1.26	0.03	1.29
USA	0.48	0.22	0.70
Others	0.72	0.00	0.72
Total absenteeism rate	4.20	0.13	4.33

Absenteeism rate based on regular working hours