

LEO mission

— we help people achieve healthy skin

LEO vision

— we are the preferred dermatology care partner improving people's lives around the world



Environment & Safety

At LEO Pharma, we are committed to reducing the impact our business activities have on the environment. Protecting and preserving the environment is an integral part of our daily business. This report only deals with the environmental performance. Please refer to the CSR report for information about the safety performance.

Focus areas

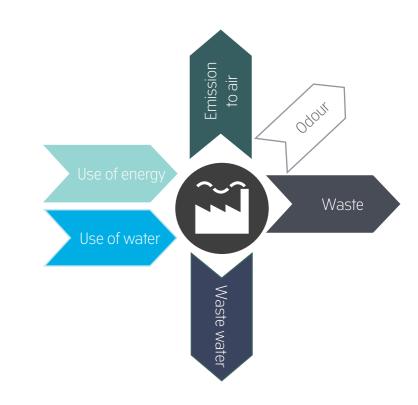
LEO Pharma impacts on the environment mainly through our production activities, which take place at six different manufacturing sites.

Our main impacts on the environment are LEO Pharma's use of energy and water; generation of waste and waste water; direct and indirect emissions of greenhouse gases, odour and other emissions to air.

This report describes the environmental performance of LEO Pharma and is a supplement to the CSR report. The criteria on which the most significant environmental impacts have been selected are described in the reporting approach section of the CSR report.

As regards figures for LEO Pharma Southport, it should be noted that the site has ceased production due to a new product being undertaken and a new process being implemented onsite. Due to this shutdown, Southport figures in this document does not give an accurate understanding of the work produced onsite as the site was a construction site from May until December. Also the site disposed of lots of product, solvents, consumables and raw materials in 2016 to make way for the new product.

LEO Pharma's environmental and energy impact





Input

USE OF RAW MATERIAL

Total consumption at LEO Pharma's manufacturing sites (tonnes)

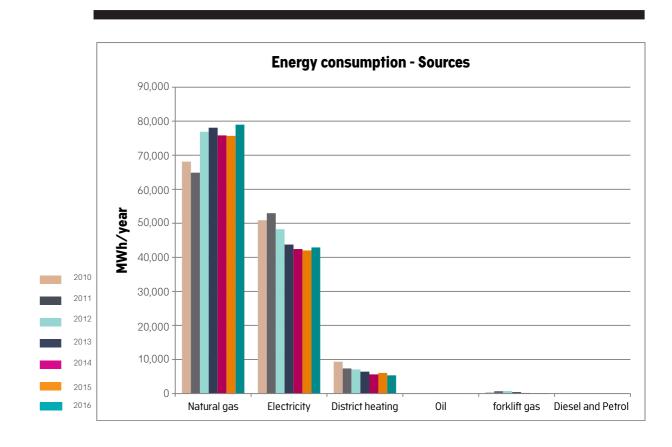
	2010	2011	2012	2013	2014	2015	2016
Organic solvents	1,247	1,633	2,064	1,531	1,553	1,857	1,783
API	34	41	40	38	29	44	65
Agricultural products	61,937	75,968	82,400	80,748	68,120	69,013	64,182
Acids/bases	331	469	370	383	287	329	353
Gels and filter material	1	50	20	19	16	16	16
Other organic compounds	1,274	1,313	1,294	1,226	1,568	1,680	1,306
Inorganic sub- stances	4,604	5,485	5,322	5,444	4,536	4,680	4,372
Detergents	20	21	21	32	31	36	24
Total in tonnes	69,448	84,980	91,531	89,421	76,141	77,655	72,101

ENERGY

Total consumption of energy at LEO Pharma's manufacturing sites (MWh)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	76,764	71,030	70,172	66,898	63,122	63,468	67,643
Esbjerg	7,098	8,225	8,337	6,236	5,395	5,149	4,637
Vernouillet	14,280	15,862	17,812	16,786	16,705	16,227*	16,841
Cork	6,728	6,275	6,664	6,917	7,012	7,318	7,166
Dublin	23,002	23,386	28,175	30,260	30,296	28,960	30,064
Southport	917	1,215	1,904	1,608	1,548*	1,567	1,022
Total in MWh	128,789	125,993	133,064	128,705	124,077	123,902	127,373 **

^{*}The figures have been changed compared to the 2014 and 2015 report due to a calculation error.



WATER

Total consumption of water at LEO Pharma's manufacturing sites (m³)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	165,622	152,898	150,106	174,454	146,698	159,524	165,035
Esbjerg	16,220	21,954	25,266	22,589	19,905	17,122	16,857
Vernouillet	21,653	20,507	26,094	36,719	44,328	41,990	31,285
Cork	41,922	35,406	47,266	55,114	49,402	46,020	83,657
Dublin	43,416	41,692	49,746	53,890	52,539	56,237	61,585
Southport	1,308	1,308	2,554	4,186	4,439	1,303	1,768
Total in m³	290,141	273,765	301,032	346,952	317,311	322,196	360,187

The major changes in the above figures are a decrease in the water consumption in Vernouillet as a result of a water minimisation project which was implemented and the increase in Cork is due to a major water leak which was detected and fixed at the end of 2016.

^{**}This figure deviates from the one in the CSR report since the figure in this report includes forklift gas, oil, diesel and petrol.



Output

PRODUCTS

Total amount of products at LEO Pharma's manufacturing sites (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	1,825	1,640	1,630	1,259	1,208	1,037	841
Esbjerg	8	10	11	11	9	9	8
Vernouillet	648**	720**	1,080**	1,104**	1,212**	1,212**	1,425
Cork	11	15	16	15	13	13	13
Dublin	2,650	2,655	2,378	2,504	2,850	2,997	3,114
Southport	*	*	*			*	*
Total in tonnes	5,142	5,040	5,113	4,893	5,292	5,268	5,401

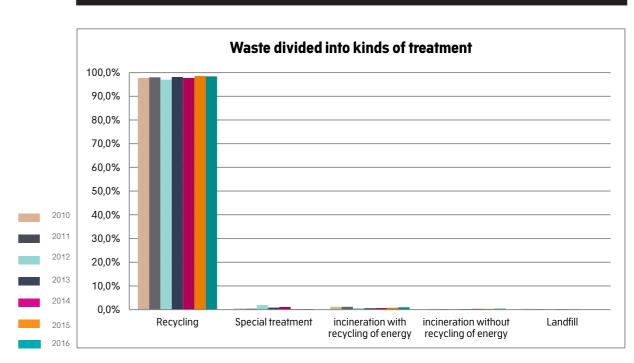
The production volume includes packaging

WASTE

Total amount of waste generated by LEO Pharma's manufacturing sites (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	2,612	2,718	2,567	2,326	2,149	2,407	2,770
Esbjerg	67,905	83,981	93,806	94,149	82,117	77,797	73,963
Vernouillet	397	521	588	581	542	735	765
Cork	304	678	144	151	97	90	115
Dublin	708	692	697	743	793	908	929
Southport	37	37	1,836	811	833**	1,009	427
Total in tonnes*	71,963	88,627	99,638	98,761	86,531	82,948	78,969

^{*}Construction and project related waste is excluded.



The high recycling percentage is mainly due to the process in Esbjerg where the residual waste is recycled as farm land fertilizer.

WASTE WATER

Total amount of waste water being discharged at at LEO Pharma's manufacturing sites (m³)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	158,246	145,315	138,000	153,816	107,952	131,953	144,545
Esbjerg	5,190	7,025	9,231	10,167	9,995	9,339	9,920
Vernouillet	16,596	15,906	19,713	44,718	44,260	51,989**	29,917
Cork	19,077	18,042	28,845	35,119	23,369	22,231	33,224
Dublin	37,756	45,759	45,544	47,524	41,968	45,843	49,219
Southport*	n/a	n/a	n/a	622	413	380	158
Total in m ³	236,865	232,047	241,333	291,966	227,957	261,735	266,983

^{*}Only sanitary waste goes to sewage. The amount is not measured.

The increase in Ballerup is primarily due to increased production of API. In Vernouillet, focus has been on reducing use of water and thereby the waste water has decreased as well. In Cork, the site surface water has been diverted to effluent for most of the year as a CAPA reported to the EPA for conductivity OOS. Surface water will be allowed to be sent back to the harbour sometime in 2017. A project to upgrade the electrical installations in the effluent area is nearing completion. This upgrade will allow the surface water conductivity measurement to be monitored. Any conductivity OOS will alarm to the BMS and automatically divert to effluent.

^{*}Production output is confidential

^{**}Figures have been changed compared to previous reports since the data received was not correct.

^{**}The figure has been changed compared to previous reports since the data received from the company collecting the waste was not correct.

^{**}The flow meter showed a false reading because the waste water pipes were sometimes blocked causing the water to rise.



Overall chemical oxygen demand (COD) from LEO Pharma's manufacturing sites (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	363	385	290	349	182	276	239
Esbjerg	4	5	43	76	70	67	96
Vernouillet	2	2	1	6	6	10	9
Cork	4	5	5	9	7	9	11
Dublin	15	18	16	19	22	21	17
Southport	n/a						
Total in tonnes	388	415	355	459	287	383	372

Overall total organic carbon (TOC) from LEO Pharma's manufacturing sites (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	121	128	97	116	61	92	80
Esbjerg	1	2	14	25	23	23	32
Vernouillet	1	1	0	2	2	3	3
Cork	1	1	2	3	2	3	3
Dublin	5	6	6	3	7	7	6
Southport	n/a						
Total in tonnes	129	138	119	149	95	128	124

The COD and TOC calculations in Ballerup vary from year to year since they are based on 6 measurements of 24 hours resulting in some uncertainties as production varies.

AIR EMISSIONS

Emission of organic solvents to the atmosphere from the production (tonnes)

	0010	0011	0010	2010	0014	0015	0047
	2010	2011	2012	2013	2014	2015	2016
Ballerup	9.5	13.7	11.6	11.4	10.7	7.7	5.2
Esbjerg	0	0	0	0	0	0	0
Vernouillet	0.6	0.2	1.5	1.8	3.1	8.2	3.9
Cork	n/a	n/a	n/a	n/a	n/a	0	0
Dublin	n/a						
Southport	n/a	n/a	0.2	0.6	1.2	0.5	n/a
Total in tonnes	10.1	13.9	13.3	13.8	15.0	16.4	9.1

The drop in emission of organic solvents is for example due to changed cleaning procedures in Vernouillet which has resulted in less organic solvents being used.

Emission of the greenhouse gas carbon dioxide (CO₂) (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	7,078	6,331	6,342	6128	5,667	5,798	6,334
Esbjerg	1,319	1,531	1,492	1107	965	939	996
Vernouillet	1,501	1,444	2,019	1633	1,641	1,778	1,739
Cork	n/a	839	756	770	790	851	840
Dublin	2,364	2,816	5,014	6107	6,100	5,758	6,034
Southport	133	133	146	470	440	457	n/a
Total in tonnes	12,395	13,094	15,769	16,215	15,603	15,581	15,943



Emission of NO_x (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	5.5	4.9	4.9	4.7	4.4	4.5	4.8
Esbjerg	1.0	1.1	1.1	8.0	0.7	0.7	0.7
Vernouillet	1.2	1.2	2.1	0.0	1.8	0.7	0.8
Cork	n/a	1.2	1.3	0.4	1.4	1.5	1.5
Dublin	4.0	5.0	8.8	10.7	10.8	10.2	10.7
Southport	1	1	0.2	0.4	0.4	0.4	n/a
Total in tonnes	13	14	18	17	19.5	18.0	18.5

Emission of SO₂ (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	0.04	0.04	0.04	0.03	0.03	0.03	0,04
Esbjerg	0.01	0.01	0.01	0.01	0.01	0.01	0,03
Vernouillet	0	0	0.02	0.02	0.02	0.02	0,03
Cork	n/a						
Dublin	n/a						
Southport	~0	~0	~0	0.08	0.09	0.09	n/a
Total in tonnes	0.05	0.05	0.07	0.14	0.15	0.15	0.10

Emission of ozone-depleting substances (ODS) (Combination of R407c, R134a, R404a, R410a) (tonnes)

	2010	2011	2012	2013	2014	2015	2016
Ballerup	0,0000	0,0690	0,0600	0,1050	0,0390	0,0450	0,0470
Esbjerg	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
Vernouillet	0,0000	0,0000	0,0150	0,0000	0,0000	0,0042	0,0000
Cork	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
Dublin	0,0670	0,175	0,0125	0,0503	0,0020	0,0605	0,0723
Southport	n/a						
Total in tonnes	0,0670	0,2440	0,0875	0,1553	0,0410	0,1097	0,1193

ENVIRONMENTAL INCIDENTS

Number of environmental accidents/incidents reported to the authorities

	2010	2011	2012	2013	2014	2015	2016
Ballerup	2	3	3	18	5	5	4
Esbjerg	0	0	2	0	56	40	24
Vernouillet	0	0	0	3	4	3	0
Cork	10	15	5	10	5	4	2
Dublin	2	2	2	6	8	6	4
Southport	0	0	0	1	0	0	0
Total	14	20	12	38	78	58	34

The incidents in Ballerup are accidental releases from the API production with no permanent damage to the environment

All incidents in Esbjerg are related to waste water as the waste water contains too much suspended solids and fat resulting in too high COD and too much Total-N. The waste water treatment plant has no problem dealing with the waste water and it does not affect the environment downstream from the waste water treatment plant.

A new waste water permit is expected in 2017.

The incidents in Cork and Dublin are also related to breaches of waste water disharge permits.

COMPLAINTS

Number of complaints received by LEO Pharma manufacturing sites

	2010	2011	2012	2013	2014	2015	2016
Ballerup	0	1	1	0	0	1	3
Esbjerg	0	0	0	0	0	0	0
Vernouillet	0	0	0	0	0	0	0
Cork	0	0	0	0	0	0	0
Dublin	0	2	0	2	0	0	0
Southport	0	0	0	0	0	0	0
Total	0	3	1	2	0	1	3

All complaints in Ballerup are complaints about odour related to the Fucidin production. The odour does not constitute any risk to the environment.

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