

We report on the effectiveness of our material nonfinancial topics by monitoring key performance indicators (KPI). This overview contains both audited and non-audited data. Audited KPIs are taken from the Annual Report 2022. Additional non-audited KPIs are provided in our Sustainability Report as well as on our corporate website. This overview is currently only available in English.

[Fresenius Group Annual Report 2022](#)

[Fresenius Group Sustainability Report 2022](#)

1. Quality

1.1 Patients treated	2022	2021	2020	2019	2018
in dialysis centers	344,687	345,425	346,553	345,096	333,331
in hospitals and outpatient centers of Fresenius Helios	24,361,372	22,567,138	20,189,521	20,962,664	18,639,511
<i>in Helios' facilities in Germany</i>	5,508,108	5,444,546	5,151,717	5,566,613	5,321,445
<i>in Helios' facilities in Spain and Latin America</i>	18,853,264	17,122,592	15,037,804	15,396,051	13,318,066

1.2 Healthcare facilities	2022	2021	2020	2019	2018
Dialysis centers worldwide	4,116	4,171	4,092	3,994	3,928
Acute care clinics	145	146	141	134	130
<i>thereof Germany</i>	87	90	89	83	83
<i>thereof Spain and Latin America</i>	58	56	52	51	47

1.3 Number of Beds (Acute care)	2022	2021	2020	2019	2018
Clinics Germany	29,786	29,955	29,451	28,380	28,802
Clinics Spain and Latin America	8,259	8,174	7,936	7,288	7,019

1.4 Quality Commitment ¹	2022	2021	2020	2019	2018
Coverage by external quality management standard	100%	n.a.	n.a.	n.a.	n.a.
<i>thereof ISO 9001 coverage</i>	61%	n.a.	n.a.	n.a.	n.a.
Internal standard or policy	100%	n.a.	n.a.	n.a.	n.a.
Regulatory requirement (e.g. national law)	100%	n.a.	n.a.	n.a.	n.a.

¹ Coverage within the business segments depends on the applicability of standards or policies; focus on operations and hospitals

1.5 Quality Management in Patient Care	2022	2021	2020	2019	2018
Fresenius Medical Care					
Global hospitalization rate per patient in days	10.6	10.7	n.a.	n.a.	n.a.
Net Promoter Score (NPS)	71	71	67	n.a.	n.a.

	2022	2021	2020	2019	2018
Fresenius Helios, Germany					
Average length of stay	5.8	5.7	5.7	5.8	5.9
G-IQI targets achieved	87.0%	86.8%	88.4%	87.7%	87.7%
Peer Reviews	9	7	8	60	55
Patient safety events recorded	54	85	105	n.a.	n.a.
Allegations of treatment errors (justified or unjustified)	828	768	958	1,082	1,051
Average treatment errors per 1,000 patients ¹	0.8	0.8	0.9	0.9	0.9
CIRS reports (Critical Incident Reporting System)	737	576	485	n.a.	n.a.
Fresenius Helios, Spain					
Net Promoter Score, Spain	56	50	54	55	n.a.
Total Reports (NPS), Spain	652,269	534,930	361,800	426,061	n.a.
Peer Reviews	4	4	2	8	n.a.
Patient Safety Incidents	11,299	8,508	4,897	4,350	n.a.

¹ Average allegation of treatment error (justified or unjustified) per 1,000 patients; incl. all specialties and all stages of treatment, from patient information, diagnostics, surgery, and therapy and to aftercare.

1.6 Quality Management in	2022	2021	2020	2019	2018
Fresenius Medical Care					
Audit Score ¹	0.3	0.1	0.2	0.2	0.3
Certification audits performed at production sites	>50	>50	>60	n.a.	n.a.
Fresenius Kabi					
Audit and inspection score ²	2.3	1.9	1.3	1.5	1.8
Internal audits	45	58	42	60	>70
External audits and inspections	87	94	59	64	>90

¹ FME: The audit score measures performance in certification audits and indicates the ratio of major and critical findings to the number of external audits.

² For the calculation of the audit and inspection score, Fresenius Kabi takes into account all information on findings from audits and inspections received by the company before December 31 of the reporting year.

2. Innovation and Digitalization

2.1 Research and Development	2022	2021	2020	2019	2018
R&D expenses, € in millions ¹	852	818	748	677	649
<i>as % of product revenue</i>	7.2	7.5	7.2	6.8	6.7

¹ for special items, see page 40 of the Annual Report 2022

2.2 Clinical Study Management	2022	2021	2020	2019	2018
Fresenius Helios, Germany					
Clinical studies, total	337	424	468	n.a.	n.a.
<i>Helios employees as initiator</i>	58	143	133	n.a.	n.a.

	2022	2021	2020	2019	2018
<i>funded</i> ¹	100	140	163	n.a.	n.a.
<i>Academically-led or publicly-sponsored studies with industry support; trial drugs typically provided</i> ²	54	30	47	n.a.	n.a.
<i>Industry-sponsored studies</i> ³	125	111	125	n.a.	n.a.
Fresenius Helios, Spain					
Clinical studies, total	1,314	1,323	1,230	n.a.	n.a.
Observation studies	303	350	> 370	n.a.	n.a.
Research initiatives	705	780	> 600	n.a.	n.a.

¹ The majority of these studies are led by universities, mostly with public research funding.

² The majority of these studies are led by universities/professional societies, but are supported by drug/medical devices manufacturers, which usually extends to the provision of the drugs/medical devices.

³ The majority of these studies are supported by the pharmaceutical industry; less than 20% are medical device manufacturers.

3. Employees

3.1 Headcount, FTE	2022	2021	2020	2019	2018
Headcount, total	316,920	316,078	311,269	294,134	276,750
<i>Fresenius Medical Care</i>	128,044	130,251	133,129	128,300	120,328
<i>Fresenius Kabi</i>	42,063	41,397	40,519	39,627	37,843
<i>Fresenius Helios</i>	125,700	123,484	116,952	106,377	100,144
<i>Fresenius Vamed</i>	20,184	19,721	19,414	18,592	17,299
<i>Corporate / Other</i>	929	1,225	1,255	1,238	1,136
Headcount, by function					
<i>Production</i>	43,801	42,841	41,995	42,572	41,100
<i>Service</i>	225,695	224,944	222,427	208,070	194,868
<i>Administration</i>	30,622	31,072	30,173	28,157	26,112
<i>Sales and marketing</i>	13,003	13,565	13,109	11,923	11,628
<i>Research and development</i>	3,799	3,656	3,565	3,412	3,042
FTE, total	282,024	281,011	277,822	262,904	246,329
<i>Fresenius Medical Care</i>	120,216	122,909	125,364	120,659	112,658
<i>Fresenius Kabi</i>	40,286	39,579	39,032	38,264	36,423
<i>Fresenius Helios</i>	104,509	101,652	96,899	88,057	82,522
<i>Fresenius Vamed</i>	16,182	15,730	15,364	14,770	13,665
<i>Corporate / Other</i>	831	1,141	1,166	1,154	1,060

3.2 Recruiting / staff loyalty	2022	2021	2020	2019	2018
New hires, %^{1,2}	22.3	22.0	n.a.	n.a.	n.a.
<i>Fresenius Medical Care</i>	26.0	23.7	23.1	24.7	21.7
<i>Fresenius Kabi</i>	16.9	17.1	13.5	17.1	16.9
<i>Fresenius Helios</i>	20.0	22.9	18.0	16.9	19.9
<i>Fresenius Vamed</i>	23.6	18.4	18.4	17.8	22.5
<i>Corporate / Other</i>	14.5	11.0	6.1	11.2	12.5
New hires, in %⁴ by region					
<i>Europe</i>	18.3	19.4	n.a.	n.a.	n.a.
<i>North America</i>	28.8	22.8	n.a.	n.a.	n.a.
<i>Asia-Pacific</i>	22.7	20.4	n.a.	n.a.	n.a.

	2022	2021	2020	2019	2018
<i>Latin America</i>	30.3	37.3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Africa</i>	14.3	13.9	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Total turnover, %⁴	29.9	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
dismissal, %⁵	1.8	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>thereof termination within probation period⁵</i>	1.0	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Voluntary turnover, %^{2,3}	14.7	12.8	9.8	11.0	9.8
<i>Fresenius Medical Care</i>	20.0	16.5	11.9	14.3	13.2
<i>Fresenius Kabi</i>	11.4	11.3	7.1	9.2	9.4
<i>Fresenius Helios</i>	11.1	10.1	90.0	8.6	5.8
<i>Fresenius Vamed</i>	10.7	9.3	7.8	7.6	9.5
<i>Corporate / Other</i>	14.2	3.5	1.7	3.5	3.8
Voluntary turnover, in % by region					
<i>Europe</i>	10.5	9.3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>North America</i>	20.0	14.4	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Asia-Pacific</i>	15.6	16.0	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Latin America</i>	25.6	26.6	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Africa</i>	11.0	9.4	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Employee engagement index	4.1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>participation rate</i>	56%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Average length of service, years²	8.4	8.3	8.2	8.1	8.2
<i>Fresenius Medical Care</i>	7.9	7.6	7.3	6.8	7.1
<i>Fresenius Kabi</i>	7.9	7.9	7.9	8.6	7.5
<i>Fresenius Helios</i>	9.2	9.3	9.4	9.9	9.9
<i>Fresenius Vamed</i>	8.5	7.8	7.7	6.9	7.8
<i>Corporate / Other</i>	7.8	7.8	7.5	7.3	7.3
Average length of service (years), by region					
<i>Europe</i>	8.8	7.8	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>North America</i>	7.6	7.5	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Asia-Pacific</i>	6.6	6.3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Latin America</i>	6.9	6.6	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>Africa</i>	7.0	7.3	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

¹ Calculated as the number of external hires in a business segment within the reporting period, relative to the number of employees at year-end.

² The data contains the hospitals in Latin America as of 2020. Data for 2022 contains the Spanish entities of the fertility services division.

³ Calculated as the number of employees who left the organization voluntarily in relation to the number of employees at the end of the year.

⁴ Total turnover includes contracts which ended in 2022; only voluntary turnover of Fresenius Kabi outside Germany.

⁵ Excluding entities of Fresenius Medical Care and Fresenius Kabi outside Germany; excl. Fertility business outside Spain

3.3 Diversity, Equity and Inclusion

	2022	2021	2020	2019	2018
Headcount, female employees	217,525	216,592	212,528	200,505	188,873
Headcount, by region and gender					
<i>Europe</i>	181,017	180,122	174,835	165,862	158,939
<i>thereof Germany</i>	98,920	98,754	96,915	91,014	88,086
<i>female</i>	71%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>male</i>	29%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>

	2022	2021	2020	2019	2018
<i>diverse</i>	0%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Europe excl. Germany	82,097	81,368	77,920	74,848	70,853
<i>female</i>	69%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>male</i>	31%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
North America	77,614	76,740	75,837	74,894	72,672
<i>female</i>	72%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>male</i>	28%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Asia-Pacific	26,833	27,145	27,805	27,457	25,575
<i>female</i>	57%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>male</i>	43%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Latin America	29,529	30,192	30,871	23,998	17,610
<i>female</i>	63%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>male</i>	37%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Africa	1,927	1,879	1,921	1,923	1,954
<i>female</i>	62%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
<i>male</i>	38%	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Female employees in Fresenius Group, %	69	69	68	68	68
<i>Fresenius Medical Care</i>	69	69	69	69	69
<i>Fresenius Kabi</i>	51	51	50	50	50
<i>Fresenius Helios</i>	75	75	75	75	75
<i>Fresenius Vamed</i>	63	62	62	63	64
<i>Corporate / Other</i>	46	40	38	39	39
Share of women in management participating in LTIP	33.9%	32.6%	31.6%	31.6%	30.3%
Employees with disability ¹					
in Germany	5,082	5,051	5,027	4,724	4,444
<i>in % of employees</i>	5.1%	5.1%	5.2%	5.2%	5.0%
in Europe	5,540	5,531	5,452	5,171	<i>n.a.</i>
<i>in % of employees</i>	3.7%	4.0%	4.1%	4.1%	<i>n.a.</i>
Nationalities (German entities)	>145	>140	>150	>150	<i>n.a.</i>
Age structure (Headcount)					
Below 30 years, in %	18	19	19	19	18
Between 30 and 50 years, in %	54	55	55	55	55
Above 50 years, in %	28	26	26	26	27
Average age (Headcount), years ²	42.5	41.6	41.7	41.0	41.0
<i>Fresenius Medical Care</i>	44.1	42.1	41.7	40.8	40.8
<i>Fresenius Kabi</i>	39.5	39.2	39.9	38.7	38.4
<i>Fresenius Helios</i>	41.6	41.5	41.6	42.0	41.7
<i>Fresenius Vamed</i>	44.1	44.3	44.0	41.2	43.6
<i>Corporate / Other</i>	38.9	39.7	39.3	39.1	38.9

¹ Scope: Total staff Germany; Europe: clinics of Fresenius Helios in Spain as of 2019; European entities of Fresenius Vamed as of 2022.

² The data from Helios Spain contains the hospitals in Latin America as of 2020. Data for 2022 at Fresenius Helios contains the Spanish entities of the fertility services division.

3.4 Working Models	2022	2021	2020	2019	2018
Full-time employees ¹					
share of men	87%	82%	82%	n.a.	n.a.
share of women	74%	58%	58%	n.a.	n.a.
Employees working full-time ¹	78%	65%	65%	n.a.	n.a.
<i>thereof male</i>	32%	36%	36%	n.a.	n.a.
<i>thereof female</i>	68%	64%	64%	n.a.	n.a.
Part-time employees ¹					
share of men	13%	18%	18%	n.a.	n.a.
share of women	26%	42%	42%	n.a.	n.a.
Employees working part-time ¹	22%	35%	36%	n.a.	n.a.
<i>thereof male</i>	17%	15%	15%	n.a.	n.a.
<i>thereof female</i>	83%	85%	85%	n.a.	n.a.
Parental leave, %²	5%	5%	5%	n.a.	n.a.
<i>thereof male, %</i>	19%	21%	18%	n.a.	n.a.
<i>thereof female, %</i>	81%	80%	82%	n.a.	n.a.
Parental leave, % by region					
<i>Europe</i>	6%	n.a.	n.a.	n.a.	n.a.
<i>Germany</i>	6%	6%	6%	n.a.	n.a.

¹ 2022: Scope of 85% of employees globally. 2021 German entities and business segment Fresenius Helios (excl. Fertility business); 2020 only Germany

² 2022: Scope of around 50% of global employees

3.5 Employee participation and collective bargaining	2022	2021	2020	2019	2018
Employees covered by collective bargaining agreements ¹					
Europe	79%	78%	77%	71%	n.a.
Outside Europe	15%	15%	n.a.	n.a.	n.a.
Global	55%	54%	n.a.	n.a.	n.a.

¹ Based on about 91% of Fresenius Group total employees.

3.6 Board Diversity	2022	2021	2020	2019	2018
Management Board					
Share of women	17%	14%	14%	14%	14%
members between 30 and 50 years	17%	14%	14%	14%	14%
members over 50 years	83%	86%	86%	86%	86%
Non-Germans	33%	43%	57%	57%	57%
Average tenure (years)	5.2	7.9	8.0	8.9	7.9
Supervisory Board ¹					
Share of women	42%	42%	42%	33%	33%
members between 30 and 50 years	17%	17%	17%	8%	8%
members over 50 years	83%	83%	83%	92%	92%
Non-Germans	17%	17%	25%	25%	25%
Average tenure (years)	5.3	6.0	6.5	6.6	5.6

¹ Applies to total board

3.7 OHS	2022	2021	2020	2019	2018
LTIFR					
Fresenius Medical Care	0.7	n.a.	n.a.	n.a.	n.a.
Fresenius Kabi	2.9	2.4	2.3	2.6	
Number of work-related fatalities (Group)	0	n.a.	n.a.	n.a.	n.a.
TRIR					
Fresenius Medical Care	2.55	n.a.	n.a.	n.a.	n.a.

3.7 Labor Cost	2022	2021	2020	2019	2018
Personnel expenses					
in total, € million	17,378	15,610	15,128	14,355	13,426
<i>thereof wages and salaries</i>	14,105	12,679	12,357	11,651	10,753
per average employee (€ thou.)	54.6	49.8	49.5	49.5	48.6
in % of sales	42.6	41.6	41.7	40.5	40.4
Average employee compensation, in € ¹	44,507	40,114	39,699	39,611	38,855
Ratio CEO ² /Avg. Employee compensation, %	104.48	91.09	92.02	139.38	143.36

¹ Calculated as total wages and salaries divided by total headcount

² higher impact in 2022 due to change in board structure; consideration of both CEO salaries

4. Compliance & Integrity

4.1 Compliance	2022	2021	2020	2019	2018
Reports, total	375	2,119	1,729	n.a.	n.a.
<i>business Integrity</i>	88	105	110	n.a.	n.a.
<i>data protection</i>	26	659	368	n.a.	n.a.
<i>misappropriation of corporate assets</i>	35	n.a.	n.a.	n.a.	n.a.
<i>Environmental Health and Safety</i>	23	n.a.	n.a.	n.a.	n.a.
<i>Accounting, auditing and financial reporting</i>	8	n.a.	n.a.	n.a.	n.a.
<i>HR/Workplace</i>	155	1,040	999	n.a.	n.a.
<i>Other</i>	40	n.a.	n.a.	n.a.	n.a.
Reports by input channel, %					
<i>Hotline (phone)</i>	8	29	15	n.a.	n.a.
<i>Web-based system</i>	47	26	22	n.a.	n.a.
<i>Email/Letter</i>	27	17	39	n.a.	n.a.
<i>Personal report (incl. direct calls)</i>	15	5	3	n.a.	n.a.
<i>Other</i>	3	23	21	n.a.	n.a.
Tax Compliance					
Effective tax rate by region					
<i>Europe</i>	30.8%	24.2%	25.5%	23.9%	n.a.
<i>North America</i>	21.2%	21.1%	22.2%	20.1%	n.a.
<i>Asia-Pacific</i>	16.8%	23.4%	18.2%	23.6%	n.a.
<i>Latin America</i>	32.9%	26.4%	-27.5%	57.1%	n.a.
<i>Africa</i>	-11.7%	28.0%	-193.8%	63.6%	n.a.
<i>Group</i>	24.8%	22.8%	24.2%	22.6%	n.a.

	2022	2021	2020	2019	2018
Effective tax rate by country ¹					
USA	21.1%	n.a.	n.a.	n.a.	n.a.
Germany	56.3%	n.a.	n.a.	n.a.	n.a.
Spain	19.5%	n.a.	n.a.	n.a.	n.a.
China ²	20.5%	n.a.	n.a.	n.a.	n.a.

¹ The four countries represent more than 70% of Group sales

² adjusted tax rate

5. Environment

5.1 Environmental

Commitment ¹	2022	2021	2020	2019	2018
Coverage by external environmental management standard					
<i>thereof ISO 14001 coverage</i>	46%	n.a.	n.a.	n.a.	n.a.
<i>thereof ISO 50001 coverage</i>	70%				
Internal standard or policy	100%	n.a.	n.a.	n.a.	n.a.
Regulatory requirement (e.g. national law)	100%	n.a.	n.a.	n.a.	n.a.

¹ Scope applies to the entities for which environmental data is consolidated; focus on operations and hospitals

5.2 Water withdrawal	2022	2021	2020	2019	2018
Group ¹ , in million m ³	56.1	56.4	56.2	57.2	56.2
<i>Fresenius Medical Care</i>	40.5	41.4	41.7	43.2	42.1
<i>Fresenius Kabi</i>	10.4	10.1	9.7	9.5	9.7
<i>Fresenius Helios</i>	4.2	4.0	4.1	3.8	3.7
<i>Fresenius Vamed</i>	1.0	0.9	0.8	0.7	0.7
Group by source , in million m ³					
<i>Surface water</i>	0.7	0.7	0.7	0.7	0.7
<i>Groundwater</i>	4.8	4.4	4.4	4.3	4.6
<i>Seawater</i>	0.0	0.0	0.0	0.0	0.0
<i>Produced water</i>	0.0	0.0	0.0	0.0	0.0
<i>Third-party water (municipal supply)</i>	50.7	51.2	51.2	52.2	50.9

Fresenius Group¹ relative water withdrawal

Water withdrawal / € 1 million s	1,373	1,503	1,550	1,609	1,676
Water withdrawal / FTE	199.8	201.9	203.3	217.5	228.2
Water withdrawal (m ³) per square meter ² (hospital business)	0.8	n.a.	n.a.	n.a.	n.a.
Water withdrawal (m ³) / hospital bed ²	110	106	109	106	104

¹ Newly acquired companies are included in the second year of consolidation, at the latest. If data of the business segments is not available in time, it is extrapolated on the basis of existing data. An adjustment will be made in the next report. Prior-year information was adjusted to conform to the current year's presentation. Due to rounding, individual numbers and percentages presented in this report may not precisely reflect the absolute figures. Fresenius Medical Care water figures include the water withdrawal of its production sites and in-center treatments at its dialysis clinics. Data of Fresenius Helios's fertility services division include in 2022 only the Spanish entities.

² Data applies to business segment Fresenius Helios; excluding fertility services

5.3 Waste Volumes	2022	2021	2020	2019	2018
Fresenius Group					
Total hazardous waste, %	20	n.a.	n.a.	n.a.	n.a.
Total non-hazardous waste, %	80	n.a.	n.a.	n.a.	n.a.
Fresenius Kabi					
Total waste volume, t thou.	97	97	n.a.	n.a.	n.a.
<i>thereof hazardous, %</i>	25	27	n.a.	n.a.	n.a.
<i>recycling rate, %</i>	58	57	55	n.a.	n.a.
<i>thereof non-hazardous, %</i>	75	73	n.a.	n.a.	n.a.
<i>recycling rate, %</i>	67	70	59	n.a.	n.a.
Fresenius Helios					
Total waste volume, t thou. ¹	40	38	37	39	38
<i>thereof hazardous waste</i>	4	3	3	3	2
<i>thereof non-hazardous waste</i>	36	34	34	36	36
Hospital waste per bed ¹ , in tons (t)	0.95	1.01	1.01	1.09	1.07
Hazardous hospital waste per bed ¹ , in tons (t)	0.11	0.09	0.08	0.07	0.05

¹Applies to all hospitals in Germany and Spain of Fresenius Helios; 2017 only Germany. Waste volumes extrapolated. Due to roundings, deviations are possible.

5.4 Energy consumption	2022	2021	2020	2019	2018
Group, in million MWh ¹	5.75	5.81	5.48	5.32	5.34
<i>Fresenius Medical Care</i>	2.59	2.61	2.49	2.43	2.38
<i>Fresenius Kabi</i>	1.80	1.77	1.65	1.64	1.65
<i>Fresenius Helios</i>	1.17	1.24	1.16	1.09	1.14
<i>Fresenius Vamed</i>	0.19	0.19	0.18	0.16	0.17
by source, in %					
<i>Gas consumption</i>	47	47	46	45	n.a.
<i>Electricity (non-renewable)</i>	32	42	44	44	n.a.
<i>Purchased heat, steam, cooling</i>	6	7	6	5	n.a.
<i>Fossil fuels, excl. gas</i>	2	2	2	3	n.a.
<i>Renewable fuels</i>	2	2	2	2	n.a.
<i>Electricity (renewable)</i>	11	n.a.	n.a.	n.a.	n.a.

Fresenius Group¹ relative energy consumption

Energy consumption / € 1 million sales	141	155	151	150	159
Energy consumption / FTE	20.5	20.8	19.8	20.3	21.7
Energy consumption / hospital bed ²	30.7	32.4	31.0	30.9	31.9

¹Data of Fresenius Medical Care include the energy consumption of production sites and the electricity consumption of in-center treatments in dialysis clinics. Some data is subject in part to extrapolations.

Data of Fresenius Helios's fertility services division include in 2022 only the Spanish entities.

5.5 Emissions	2022 (market-based)	2021	2020	2019	2018
Group, t CO₂ equivalents in thou.¹	1,321	1,524	1,512	1,504	1,534
Scope 1	563	578	536	522	521
Scope 2	758	946	976	982	1,013
Fresenius Medical Care	659	766	770	775	776
<i>Scope 1</i>	258	263	242	227	219
<i>Scope 2</i>	401	503	527	547	557
Fresenius Kabi	425	443	417	409	424
<i>Scope 1</i>	169	170	160	169	169
<i>Scope 2</i>	256	273	256	239	255
Fresenius Helios	206	277	287	284	296
<i>Scope 1</i>	113	122	112	107	114
<i>Scope 2</i>	93	155	175	178	182
Fresenius Vamed	30	39	39	36	38
<i>Scope 1</i>	22	23	21	18	19
<i>Scope 2</i>	8	16	17	18	19
Fresenius Group relative GHG emissions scope 1 and 2					
t CO ₂ equivalents / € 1 million sales	36	41	42	42	46
t CO ₂ equivalents / FTE	5.2	5.5	5.5	5.8	6.2

¹ Please see page 217 of the Annual Report 2022 for more details and specifications. The calculation for 2022 is based on market-based emissions. The calculation for 2021-2018 is based on the emissions calculation approach of the previous years

Note 1: KPIs subject to the limited or reasonable assurance by the auditor are provided in the Fresenius Group Annual Report 2022.

[Fresenius Group Annual Report 2022](#)

Note 2: Sustainability KPI for Fresenius Medical Care are published on the business segment's website, see: [Fresenius Medical Care ESG Performance Data](#)

Note 3:

Additional Sustainability information on Fresenius Group is provided on the website. Other KPI are voluntarily reported in this overview or the Sustainability Online Report.

[GRI Index 2022](#)

[Sustainability Report 2022](#)

[ESG KPI and standards](#)