

PERFORMANCE IN DETAIL

NON-FINANCIAL INFORMATION



HEALTH AND SAFETY ^[1]	2014	2015	2016
Total fatalities	27	19	20
Employees, total	4	1	3
Cement	2	0	1
Ready-mix	1	0	2
Aggregates	0	1	0
Other businesses	1	0	0
Contractors, total	17	10	10
Cement	12	5	7
Ready-mix	3	1	2
Aggregates	0	2	1
Other businesses	2	2	0
Third-parties, total	6	8	7
Cement	2	5	5
Ready-mix	3	2	0
Aggregates	1	1	2
Other businesses	0	0	0
Fatality rate, employees (per 10,000 employed)	0.7	0.2	0.7
Cement	1.5	0.0	0.8
Ready-mix	0.4	0.0	1.4
Aggregates	0.0	2.0	0.0
Other businesses	0.8	0.0	0.0



Lost Time Injuries (LTIs)			
Employees, total	124	67	60
Cement	32	23	19
Ready-mix	70	32	27
Aggregates	9	4	8
Other businesses	13	8	6
Contractors, total	69	67	53
Cement	27	28	30
Ready-mix	19	9	12
Aggregates	6	10	5
Other businesses	17	20	6
Lost Time Injury Frequency Rate (LTI FR), employees (per million hours worked)	1.2	0.6	0.6
Cement	1.0	0.8	0.7
Ready-mix	1.9	0.9	0.8
Aggregates	0.9	0.4	0.7
Other businesses	0.5	0.3	0.2
Lost Time Injury Frequency Rate (LTI FR), contractors (per million hours worked)			
Cement	1.2	0.6	0.9
Lost Time Injury Severity Rate (LTI SR), employees (lost days per million hours worked)			
Cement	63.0	46.0	47.9
Compliance with CSI Driving Safety Recommended Practices (%)	87	89	98
Compliance with CSI Contractor Safety Recommended Practices (%)	88	89	96
Sites with a Health and Safety Management System implemented (%)	99	100	100
Cement	100	100	100
Ready-mix	99	100	100
Aggregates	100	100	100



Sites certified with OHSAS 18001 (%)	9	10	15
Cement	40	61	65
Ready-mix	6	8	13
Aggregates	15	13	14
Sickness Absence Rate (%)	2.2	2.1	1.8
Sites with health professional onsite or external health provider (%)	93	95	95

OUR PEOPLE	2014	2015	2016
Workforce	44,241	43,117	41,853
Mexico	9,854	9,504	9,858
United States	9,752	10,183	9,783
Europe	11,564	10,525	10,386
Asia, Middle East and Africa	3,389	3,512	3,243
South, Central America and the Caribbean	6,272	6,046	5,387
Others (including Corporate and Neoris)	3,410	3,347	3,196
Breakdown of workforce by type of contract (%)			
Full time	99	100	99
Part time	1	0	1
Breakdown of workforce by level (%)			
Executive positions	5	5	5
Non-executive positions	32	31	31
Operational positions	63	64	64
Breakdown of workforce by age (%)			
Under 30	17	17	15
31-40	30	30	35
41-50	29	28	26
51 and over	24	25	24



Breakdown of workforce by gender (%)			
Male	89	89	88
Female	11	11	12
Female employees by level (%)			
Executive positions	12	13	13
Non-executive positions	26	38	30
Operational positions	3	3	3
Male to female wage ratio	1.05	1.07	1.08
Employees that perceive they are enabled to perform their job effectively (PEI - Performance Enablement Index) (%)	79	76	76
Employees that are engaged to the company (EEI - Employee Engagement Index) (%)	77	76	76
Participation rate in engagement survey (%)	78	75	75
Employee turnover rate (%) ^[2]	6.9	6.6	9.4
Employees represented by an independent union or covered by a collective bargaining agreement (%) ^[3]	45	45	40
Notice to employees regarding operational changes (average days)	34	36	30
Performance Management [scale 0-5 points]	3.51	3.52	3.48
Succession Coverage (%)	1.83	1.82	1.82
Countries with practices to promote local hiring (%)	90	100	73
Training provided by operations (average hours)			
Executive positions	27	18	25
Non-executive and operational positions	29	15	16
Online courses through CEMEX Online Training Platforms (No.)	545	3,155	262
Employees with access to CEMEX Online Training Platforms (No.)	10,104	25,656	25,266



RESILIENT AND EFFICIENT BUILDING SOLUTIONS	2014	2015	2016
Affordable and/or resource-efficient buildings where CEMEX is involved (No.)	3,150	2,400	4,112
Affordable and/or resource-efficient buildings where CEMEX is involved (million m ²)	0.18	0.15	0.07
Installed concrete pavement area (million m ²)	8.14	7.32	5.39
Green building projects under certification where CEMEX is involved (million m ²)	7.08	6.42	9.73
Annual ready-mix sales derived from products with outstanding sustainable attributes (%)	29.7	33.0	33.7

STRENGTHEN LOCAL COMMUNITIES ^[4]	2014	2015	2016
Families participating in Patrimonio Hoy (No.)	470,749	525,941	572,166
Individuals benefited from Patrimonio Hoy (No.)	2,274,630	2,536,466	2,756,087
Square meters built by Patrimonio Hoy	3,693,073	4,115,392	4,346,968
Families participating in our social and inclusive businesses (No.)	543,903	627,307	685,634
Individuals benefited from our social and inclusive businesses (No.)	2,601,157	2,994,453	3,272,953
Total individuals benefited from our high-impact social initiatives (No.)	6,937,176	9,655,198	12,604,222

CARBON STRATEGY	2014	2015	2016
Absolute gross CO ₂ emissions (million ton)	42.8	43.7	43.8
Absolute net CO ₂ emissions (million ton)	40.1	40.8	41.4
Specific gross CO ₂ emissions (kg CO ₂ /ton of cementitious product)	653	672	678
Specific net CO ₂ emissions (kg CO ₂ /ton of cementitious product)	613	630	642
Reduction in CO ₂ emissions per ton of cementitious product from 1990 baseline (%)	22.6	21.6	20.1
Thermal energy efficiency of clinker production (MJ/ton clinker)	3,854	3,897	3,905

OTHER CARBON STRATEGY INDICATORS	2014	2015	2016
Alternative raw material rate, cement (%) ^[5]	11.2	6.0	6.1
Sustainable raw material rate, cement (%) ^[6]	13.6	12.7	12.9
Alternative raw material rate, concrete (%)			1.4



Alternative raw material rate, other businesses (%)			2.5
Clinker/Cement factor (%)	76.5	78.6	78.4
Indirect energy consumption (GWh)	7,562	7,643	7,698
Specific energy consumption, cement (kWh/ton)	116	119	120
Specific energy consumption, ready-mix (kWh/m ³)	3.2	3.2	3.2
Specific energy consumption, aggregates (kWh/ton)	4.4	4.6	4.3
Direct energy consumption (TJ)	196,510	202,598	202,255
Power from renewable energy sources, cement (%) ^[7]			25

FUEL MIX (%)	2014	2015	2016
Total alternative fuels	27.7	26.6	23.3
Coal	22.5	23.8	24.8
Petroleum coke	38.2	39.0	45.4
Fuel oil	8.5	7.0	2.0
Natural gas	3.0	3.7	4.3

ALTERNATIVE FUELS RATE (%)	2014	2015	2016
Alternative fossil fuels rate	16.3	15.7	13.7
Biomass fuels rate	11.4	10.9	9.6

WASTE TYPES USED AS ALTERNATIVE FUELS (%)	2014	2015	2016
Industrial and household waste	49.7	50.3	50.2
Tires	9.0	8.8	8.7
Animal meal	2.5	2.0	2.5
Agricultural organic waste	7.2	7.3	6.3
Other biomass	31.6	31.6	32.3



WASTE MANAGEMENT	2014	2015	2016
Hazardous waste disposal (ton)	104,909	104,254	95,141
Cement	102,036	101,811	93,413
Ready-mix	2,348	2,171	1,501
Aggregates	403	271	226
Others	122	0.35	1.25
Non-hazardous waste disposal (ton)	483,404	464,493	276,491
Cement	130,507	102,504	91,223
Ready-mix	335,402	344,958	174,365
Aggregates	11,325	13,178	7,992
Others	6,171	3,853	2,912
Secondary and recycled aggregates used as a direct replacement of primary aggregates (ton)	221,676	257,761	258,494

ENVIRONMENTAL AND QUALITY MANAGEMENT	2014	2015	2016
Sites with CEMEX Environmental Management System (EMS) implemented (%)	74	76	88
Cement	97	98	98
Ready-mix	70	73	88
Aggregates	90	88	86
Sites with ISO 14001 Certification (%)	37	44	46
Cement	74	74	76
Ready-mix	34	41	43
Aggregates	44	50	53
Sites with ISO 9001 Certification (%)	44	45	45
Cement	78	79	79
Ready-mix	45	46	44
Aggregates	30	36	41
Environmental investment (US million)	85	86	80



Total environmental incidents	433	753	365
Major environmental incidents - Category 1 (No.)	0	2	0
Moderate environmental incidents - Category 2 (No.)	39	436	64
Minor environmental incidents - Category 3 (No.)	313	227	224
Complaints (No.)	81	88	77
Total Environmental fines (No.)	276	453	363
Total Environmental fines (US million)	0.5	0.3	0.15
Environmental fines implying payments above US\$10,000 (No.)	0	2	0
Total amount from environmental fines above US\$10,000 (USD thousand)	0	139	15
Environmental liability accrued at year end (US million)	40.6	27.3	51.8

AIR QUALITY	2014	2015	2016
Clinker produced with continuous monitoring of major emissions (dust, NO _x and SO _x) (%)	84	84	84
Clinker produced with monitoring of major and minor emissions (dust, NO _x , SO _x , Hg, Cd, Tl, VOC, PCDD/F) (%)	81	80	80
Absolute dust emissions (ton/year)	6,147	4,095	2,703
Specific dust emissions (g/ton clinker)	134	90	67
Absolute NO _x emissions (ton/year)	59,620	55,318	76,552
Specific NO _x emissions (g/ton clinker)	1,205	1,122	1,533
Absolute SO _x emissions (ton/year)	12,711	13,640	13,089
Specific SO _x emissions (g/ton clinker)	257	279	253
Annual reduction in dust emissions per ton of clinker from 2005 baseline (%)	55	70	78
Annual reduction in NO _x emissions per ton of clinker from 2005 baseline (%)	42	46	26
Annual reduction in SO _x emissions per ton of clinker from 2005 baseline (%)	60	57	61



WATER MANAGEMENT	2014	2015	2016
Total water withdrawals by source (million m ³)	84.6	79.1	67.0
Surface water	37.3	27.0	22.5
Ground water	35.6	37.9	28.6
Municipal water	8.8	10.0	12.2
Rain water	0.9	0.8	0.4
Sea water	0.2	0.1	0.0
Other	1.8	3.3	3.4
Cement (million m ³)	25.9	25.0	24.6
Surface water	10.9	7.3	6.5
Ground water	13.0	15.5	15.3
Municipal water	1.1	1.4	2.0
Rain water	0.3	0.3	0.3
Sea water	0.0	0.0	0.0
Other	0.6	0.5	0.6
Ready-mix (million m ³)	11.0	12.1	12.3
Surface water	0.3	0.5	0.6
Ground water	3.6	2.0	2.3
Municipal water	5.6	6.6	6.5
Rain water	0.1	0.1	0.1
Sea water	0.0	0.0	0.0
Other	1.3	2.9	2.8
Aggregates (million m ³)	47.8	42.0	30.1
Surface water	26.1	19.2	15.4
Ground water	18.9	20.4	11.0
Municipal water	2.1	1.9	3.7
Rain water	0.5	0.3	0.0



Sea water	0.2	0.1	0.0
Other	0.0	0.0	0.0
Total water discharge by destination (million m ³)	32.9	29.3	17.0
Surface water	19.2	17.9	11.0
Ground water	11.8	10.0	5.1
Municipal water	0.8	0.8	0.8
Sea water	0.1	0.1	0.0
Other	1.0	0.4	0.1
Cement (million m ³)	3.3	3.2	2.6
Surface water	2.4	2.6	2.0
Ground water	0.0	0.0	0.0
Municipal water	0.3	0.3	0.4
Sea water	0.1	0.1	0.0
Other	0.5	0.2	0.1
Ready-mix (million m ³)	0.7	0.9	0.8
Surface water	0.0	0.3	0.3
Ground water	0.2	0.1	0.2
Municipal water	0.4	0.5	0.3
Sea water	0.0	0.0	0.0
Other	0.1	0.0	0.0
Aggregates (million m ³)	28.9	25.3	13.6
Surface water	16.8	15.1	8.7
Ground water	11.6	9.9	4.9
Municipal water	0.1	0.1	0.0
Sea water	0.0	0.0	0.0
Other	0.4	0.3	0.0



Total consumption (million m ³)	52	50	50
Cement	23	22	22
Ready-mix	10	11	12
Aggregates	19	17	17
Specific water consumption			
Cement (l/ton)	360	346	352
Ready-mix (l/m ³)	185	207	222
Aggregates (l/ton)	132	134	131
Sites with water recycling systems (%)	84	84	79
Cement	80	77	76
Ready-mix	83	83	80
Aggregates ^[8]	89	93	76

BIODIVERSITY MANAGEMENT	2014	2015	2016
Active sites with quarry rehabilitation plans (%)	94	94	94
Cement	86	84	90
Aggregates	96	98	96
Active quarries within or adjacent to high biodiversity value areas (No.)	80	64	63
Cement	10	9	9
Aggregates	70	55	54
Active sites with high biodiversity value where biodiversity action plans are actively implemented (%)	55	61	63
Cement	60	89	89
Aggregates	54	56	59



STAKEHOLDER ENGAGEMENT	2014	2015	2016
Sites conducting social impact assessments (%)	68	69	72
Cement	75	77	77
Ready-mix	67	69	71
Aggregates	70	69	72
Sites with community engagement plans (%)	98	98	98
Cement	97	97	97
Aggregates	98	98	98
Countries with employee volunteering programs (%)	67	73	75
Countries that conduct regular customer satisfaction surveys (%)	78	85	88
Purchases sourced from locally-based suppliers (%)	95	95	95
Countries with a process to screen suppliers in relation to social and environmental aspects (%)	86	86	83
Global procurement spend assessed under the Supplier Sustainability Program (%)	12	13	17

CEMENT OPERATIONS	2014	2015	2016
Kiln operational efficiency (volume produced/available capacity) (%) ^[9]	84.4	88.3	88.9
Cement productivity (volume produced per man-hour)	1.59	1.73	1.77

GOVERNANCE AND ETHICS	2014	2015	2016
Executives and employees actively aware of our Code of Ethics (%)	80	80	77
Reports of alleged breaches to the Code of Ethics received by local ethics committees (No.)	394	359	453
Ethics and compliance cases reported during the year that were investigated and closed (%)	91	74	68
Disciplinary actions taken as a result of reports of non-compliance with the Code of Ethics, other policies or the law (No.)	177	180	115
Target countries that participated on the Global Compliance Program (antitrust, antri-bribery and insider trading) (%)	90	100	100



Countries with local mechanisms to promote employee awareness of procedures to identify and report incidences of internal fraud, kick-backs, among others (%)	100	100	100
Investigated incidents reported and found to be true related to fraud, kick-backs among others corruption incidents to government officials (No.)	0	0	0

Footnotes:

^[1] All H&S statistics are in accordance with the CSI Reporting Guidelines.

^[2] Voluntary turnover.

^[3] Total employees including executive and non-executive positions. Considering only operations positions coverage is 63%.

^[4] Accumulated figure since 1998.

^[5] 2015 figure reflects CEMEX's operations portfolio after assets transactions.

^[6] Raw materials containing the required minerals for clinker/cement production with the potential to reduce impacts from ...

^[7] KPI calculated as of 2016. It includes direct supply contracts plus renewable share from the power grid.

^[8] Considering sites that use water for aggregates production (including wet screening and aggregate washing).

^[9] Available capacity = nominal capacity x (total hours - scheduled down time).