



## SECIL Group: CSI membership 2016

The Cement Sustainability Initiative (CSI) is a global effort by 24 major cement producers with operations in more than 100 countries who believe there is a strong business case for the pursuit of sustainable development. Collectively these companies account for around 30% of the world's cement production and range in size from very large multinationals to smaller local producers.

The purpose of the Initiative is to:

- Explore what sustainable development means for the cement industry;
- Identify actions and facilitate steps cement companies can take, individually and as a group, to accelerate progress toward sustainable development;
- Provide a framework for other cement companies to become involved;
- Create the content and context for further stakeholder engagement.

To date the CSI remains one of the largest global sustainability programs ever undertaken by a single industry sector.

### SECIL Group contribution to the Cement Sustainability Initiative

SECIL Group is a participating member since year 2003.

Currently, SECIL Group is participating in all of the focus areas of the CSI, as from the following table.

	<b>Status 2016</b>
FA1 Climate and Energy	participant/JBF
FA2 Safety and Health	participant/APR
FA3 Product Stewardship and Sustainable Construction	participant/AMN
FA4 Local Impacts	participant/NMS
FA5 Resource Efficiency ( <i>suspended in 2016</i> )	suspended
Governance/Liason Delegate (LD)	participant/APR



## The Company Charter of the Cement Sustainability Initiative

The companies participating in the CSI have all signed the CSI Charter. It summarizes the individual member actions included in the Agenda for Action, published in 2002. All companies joining the Initiative agree to implement these actions as a minimum requirement of membership, as part of their contribution to sustainable development. The Charter was updated in 2009 and will be renewed as necessary to address developing issues. Since the document was issued in 2002, CSI members have further agreed to begin independent third party assurance of a number of the key performance indicators (KPIs), which are publicly reported. Beginning with 2006, companies carry out assurance of their CO<sub>2</sub> data at least once every two years. They have also committed to independent assurance of their safety data, beginning with data from 2008. Other KPIs will be added over time.

### CO<sub>2</sub> and Climate Protection

Use the tools set out in the CSI CO <sub>2</sub> and Energy protocol to define and make public our baseline emissions	CSI Guidelines translated
Develop a climate change mitigation strategy, and publish targets and progress	See Annual Report for details
Report annually on CO <sub>2</sub> emissions in line with the protocol	Reported yearly through the Annual Report
Participate in and contribute agreed datasets to the Getting the Numbers Right global cement database system of CO <sub>2</sub> and energy information	Data uploaded every year

### Assurance - CO<sub>2</sub> emissions data

Companies will carry out assurance at least once every two years using recognized, independent third party assurance practitioners	Carried out every two years (minimum) <b>Last:</b> Nov 2016 <b>Next:</b> Mar 2017
Assurance practitioners will decide on the number of sites to be visited	Decided by third party verifier
Assurance statements will explicitly mention the number of sites visited and the corresponding % CO <sub>2</sub> emissions covered	Included in the assurance statement

### Responsible Use of Fuels and Raw Materials

Apply the guidelines developed for fuel and raw material use	CSI Guidelines translated
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### Employee Health and Safety

Apply the safety good practice guidelines compiled by the Health and Safety Task Force	CSI Guidelines translated
Report to the CSI annually on employee safety data in line with the guidelines developed for measuring and reporting (fatality data to be reported to the CSI as of the year of joining)	Reported yearly through the Annual Report

### Assurance - Safety data

Companies will carry out assurance at least once every three years using recognized, independent third party assurance practitioners	Carried out every three years (minimum) <b>Last:</b> Nov 2015 <b>Next:</b> Mar 2017
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**Air Emissions**

Apply the Guidelines for Emissions Monitoring and Reporting in the Cement Industry	CSI Guidelines
Make emissions data publicly available and accessible to stakeholders	Reported yearly through the Annual Report
Set emissions targets for main pollutants (NOx, SOx, dust) and report publicly on progress	Reported yearly through the Annual Report

**Assurance - NOx, SO2, and dust emissions data**

Companies will carry out assurance at least once every three years using recognized, independent third party assurance practitioners	Carried out every three years (minimum) <b>Last:</b> Nov 2015 <b>Next:</b> Mar 2017
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**Local Impacts on Land and Communities**

Apply the Environmental and Social Impact Assessment guidelines and develop tools to integrate them into decision making processes	Do not apply
Apply the Guidelines on Quarry Rehabilitation	CSI Guidelines translated

**Reporting and Communications**

Report publicly on all agreed CSI Key Performance Indicators on an annual basis	Reported yearly through the Annual Report
Publish a statement of business ethics	In planning
Establish a systematic dialogue process with stakeholders to understand and address their expectations	Reported yearly through the Annual Report
Report progress on developing stakeholder engagement programs	Reported yearly through the Annual Report
Develop documented and auditable environmental management systems at all plants	Reported yearly through the Annual Report

**Agreed Key Performance Indicators of the Cement Sustainability Initiative**

	2016	2015	2014
<b>Climate protection</b>			
Total CO2 emissions - gross (million tonnes)	3,8	3,9	3,8
Total CO2 emissions - net (million tonnes)	3,6	3,7	3,7
Specific CO2 emissions - gross (kg / tonne cementitious material)	679	681	670
Specific CO2 emissions - net (kg / tonne cementitious material)	649	652	641
<b>Responsible use of fuels and raw materials</b>			
Specific heat consumption of clinker production (MJ/tonne clinker)	3633	3 758	3 876
Alternative fuel rate (%)	11,9%	10,9%	11,0%
Biomass fuel rate (%)	7,9%	9,4%	9,4%
Alternative raw materials rate (%)	*	3,5%	3,5%
Clinker / cement ratio (%)	79,1%	78,2%	76,3%
<b>Safety</b>			
Number of fatalities (directly employed)	0	0	0
Number of fatalities per 10,000 directly employed	0	0	0
Number of fatalities (indirectly employed)	1	0	0
Number of fatalities (third party)	0	0	0
Number of lost time injuries (directly employed)	69	78	78
Total Number of lost time injuries	104	102	108
Lost time injuries per 1 million man-hours (directly employed)	12,75	14,45	17,92
<b>Air Emissions</b>			
Overall coverage rate: percentage (%) of clinker produced with monitoring of all pollutants mentioned in the emissions guidelines	*	46%	54%
Coverage rate continuous measurement: percentage (%) of clinker produced with continuous monitoring of main pollutants, dust, NOx, SO2	*	99%	97%
Dust - coverage rate (%)	84%	97%	100%
NOx - coverage rate (%)	88%	97%	100%
SO2 - coverage rate (%)	89%	96%	97%
VOC/THC - coverage rate (%)	*	62%	70%
PCDD/F - coverage rate (%)	*	56%	54%
Hg - coverage rate (%)	*	56%	76%
Sum of Cd and Tl - coverage rate (%)	*	56%	65%



**2016                      2015                      2014**

**Air Emissions**

Sum of Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V - coverage rate (%)	*	56%	65%
Dust - specific emissions (grams / tonne clinker)	14,6	145,2	107,1
NOx - specific emissions (grams / tonne clinker)	1337,0	998,0	681,8
SO2 - specific emissions (grams / tonne clinker)	233,0	193,3	110,3
VOC/THC - specific emissions (grams / tonne clinker)	*	129,1	67,9
PCDD/F - specific emissions (ng / tonne clinker)	*	8,0	14,3
Hg - specific emissions (mg / tonne clinker)	*	20,1	19,8
Sum of Cd and Tl - specific emissions (mg / tonne clinker)	*	13,3	19,7
Sum of Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V - specific emissions (mg / tonne clinker)	*	286,5	295,1
Dust - absolute emissions (ktonnes / year)	0,07	0,7	0,5
NOx - absolute emissions (ktonnes / year)	6,0	4,5	3,1
SO2 - absolute emissions (ktonnes / year)	1,0	0,9	0,5
VOC/THC - absolute emissions (ktonnes / year)	*	0,6	0,4
PCDD/F - absolute emissions (g / year)	*	0,04	0,08
Hg - absolute emissions (t / year)	*	0,09	0,09
Sum of Cd and Tl - absolute emissions (t / year)	*	0,06	0,09
Sum of Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V - absolute emissions (t / year)	*	1,3	1,3

\* Values not collected.

**2016                      2015                      2014**

**Local impacts on land and communities**

Percentage (%) of sites with community engagement plans in place	50%	50%	54,5%
Percentage (%) of sites with quarry rehabilitation plans in place	70%	80%	81,8%
Number of quarries within, containing, or adjacent to areas designated for their high biodiversity value, as defined by GRI EN11 (number and coverage)	3 (30%)	30%	18,18%
Percentage (%) of quarries with high biodiversity value where biodiversity management plans are actively implemented	100%	100%	100%



2016 2015 2014

**Water**

<b>Total water withdrawal by source (G4-EN8)</b>	1.473.784	1.794.022	1.296.235
Withdrawal from ground water (million cubic meters)	1.342.629	1.486.063	1.296.209
Withdrawal from surface water (million cubic meters)	60.180	44.052	26
Withdrawal from municipal water supplies or other water utilities (million cubic meters)	61.270	44.026	0
Rainwater harvested (million cubic meters)	8.738	219.000	0
Withdrawal from other sources (million cubic meters)	967	881	0
<b>Total water discharge by quality and destination (G4-EN22)</b>	75.602	164.370	149.581
Water discharge to surface water (million cubic meters)	75.602	145.967	131.041
Water discharge for offsite treatment (million cubic meters)	0	11.332	0
Water discharge to others (million cubic meters)	0	7.070	18.540
<b>Total water consumption (GWT for Cement Sector)</b>	1.398.182	1.629.652	1.146.654
Percentage of sites with a water recycling system (GWT for Cement Sector)	12,5%	12,5%	0