



*Thank you to the children of Akçansa.*

**AKÇANSA**

**SUSTAINABILITY  
REPORT 2 0 1 6  
2 0 1 7**



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# ABOUT THE REPORT

Akçansa Çimento Sanayi ve Ticaret A.Ş. continues to generate value for its stakeholders with the vision of sustainable growth beyond all limits and aims to set an example for the best in the social, environmental, economic and ethical areas besides financial and operational success in its activities. The achievements realized with the strategies followed and the future goals in these areas are presented transparently to the considerations of all stakeholders through the sustainability reports.

The content of 2016-2017 Akçansa Sustainability Report, consists of the activities conducted in Turkey under the brands Akçansa, Akçansa Port, Agregasa and Betonsa in the business lines of cement, aggregate and ready-mixed concrete, during the two calendar years between 01.01.2016 and 31.12.2017. Information on export activities of HC Trading, a subsidiary of HeidelbergCement, one of the main shareholders of Akçansa, and Karçimsa, Akçansa's subsidiary, are not included in this report.

This report has been prepared in accordance with GRI Standards: "core" option. The basic principles contained in the GRI Standards were taken into account in the determination of the main issues covered by the Report. Through the materiality study carried out accordingly, internal and external stakeholder opinions, publications of sectoral organizations, opinions obtained at the stakeholder meetings, opinions and expectations expressed by various stakeholders on previous reports were evaluated. In addition to the indicators in the GRI Standards, the indicators used in the sector are also drawn upon in the disclosure of performance information related to the issues covered in the content.

Akçansa 2016-2017 Sustainability Report and reports from previous years are available on our corporate website [www.akcansa.com.tr](http://www.akcansa.com.tr).



# MESSAGE FROM THE CHAIRPERSON AND THE GENERAL MANAGER



**Dr. Tamer SAKA**  
Chairperson

Dear Stakeholders,

We have left behind a reporting period during which we carried out our activities in line with our vision of sustainable growth beyond all limits in our sector. Once again, we are proud to achieve being the most admired company in the cement sector of Turkey in the years of 2016 and 2017, as for previous years. Besides meeting the expectations and needs of our industry with our products and providing our customers with innovative and value-added products, our work culture that is sensitive to environment, people and society underlies the success we achieved on behalf of our company. The innovative work we carried out in line with our business model, which centers on accountability, exemplifies the most advanced practices of the field both on a local and international scale.

In recent years, there has been a great transformation in the industry, social and economic life. This rapid transformation, especially in the production, materials and internet technologies indicates the birth of a new world that we need to keep up with. In

this environment where smart, sustainable urbanization practices are emerging steadily, the understanding of circular economy and industry 4.0 are becoming widespread in production and new life style expectations are developing, we consider it inevitable to keep pace with this development and focus our efforts on these areas. At this point, we are enriching our product portfolio to meet new needs, especially with the efforts of our R&D teams. Products such as Duocem and Soildcem, which we developed during the reporting period, are the best examples of value-added products with reduced environmental impact. Our use of alternative fuels and raw materials reduce our environmental impact while creating a new and different economic hinterland around our operations with a circular economy approach. With these practices, Akçansa is not only a producer of cement and ready-mixed concrete that develops innovative products with environmental-friendly methods, but also among the most important business partners of local authorities and industry in the field of waste management.

Like all industrial organizations, the fight against climate change constitutes an important place in Akçansa's sustainability priorities. The use of alternative raw materials and fuels is also an important part of our practices to combat climate change. In addition, during the reporting period, our electricity production with wind turbines in Çanakkale Plant and the efficiency studies we undertook at all our facilities made significant improvements in our emission values per production.

With the vision of being the most preferred employer in our sector, we offer a safe, human-focused, entrepreneurial workplace for our employees, where entrepreneurship and development are rewarded. We raised our working environment to international norms by reaching the Gold Standard in Investors In People, which is the common quality standard of businesses that share this goal. Especially in the field of occupational safety, we carry out studies of which other industrial organizations take example in all management factors from policy to practice.

# MESSAGE FROM THE CHAIRPERSON AND THE GENERAL MANAGER



**Umut ZENAR**  
General Manager

Probably the most important study we undertake in the field of sustainability is our stakeholder engagement practices oriented towards listening to all our stakeholders, learning their expectations and views, and fully implementing them. We determine the strengths and weaknesses of our value chain, ways of preserving our integrity with society, our social, environmental and economic impacts by turning obstacles into opportunities and discussing them all together. In this way, we develop our sustainability performance of our activities and respond to the expectations of local communities through social investments. In this context, My Neighborhood Project, through which we support provision of education in various fields for the children, together with their families and teachers, who live in the locations where we operate.

All these achievements are the result of a rational and systematic approach to the sustainability management. Akçansa 2020 Sustainability Ambitions, which we have been following in the past periods,

fulfilled its duty in 2017 as it led us to the point where we are today. Akçansa 2030 Sustainability Ambitions, which we will initiate its preparations next year, will constitute the roadmap of our success in the coming periods. UN Sustainable Development Goals will be the main framework of Akçansa 2030 Sustainability Ambitions, which we established its basis in line with HeidelbergCement 2030 Sustainability Ambitions.

As it is today, we believe that in the future, we will see Akçansa as a leading and pioneer company of the sector in every aspect by way of extending these achievements in the reporting period. We present our gratitude to all of our stakeholders, especially our employees, customers and business partners, our main shareholders Sabancı Holding and HeidelbergCement, who supported us in turning this goal into reality.



# CORPORATE PROFILE

## VISION

"Sustainable growth beyond all limits"

To ensure sustainable growth beyond all limits in the building materials sector as a company with the most admired business model and as the most trusted company by all our stakeholders.

## MISSION

To be a leading building materials company enhancing the quality of life of the society by means of our culture committed to environmental, legal and ethical principles to generate further values,

- for our customers with innovative products, services and solutions,
- for our shareholders with our superior financial performance,
- for our employees through our occupational health and safety oriented management approach and continuous development opportunities,
- for our environment through the emphasis placed on alternative fuel & raw material usage, recovery processes and biological diversity, and for all our other stakeholders.



### Partnership Structure



**39,72%**

Hacı Ömer Sabancı Holding A.Ş.

**39,72%**

HeidelbergCement Mediterranean

**20,56%**

Other-Publicly Traded

### Production Capacity

**9,2** (million tons) Cement | **7** (million tons) Clinker

**1.916,2**

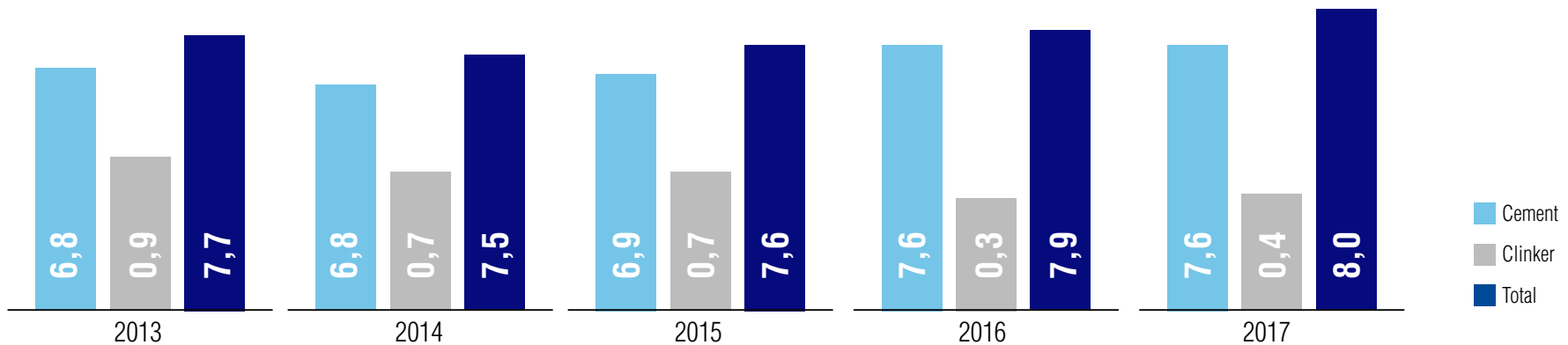
Total Assets (million TRY)

**1.519,0**

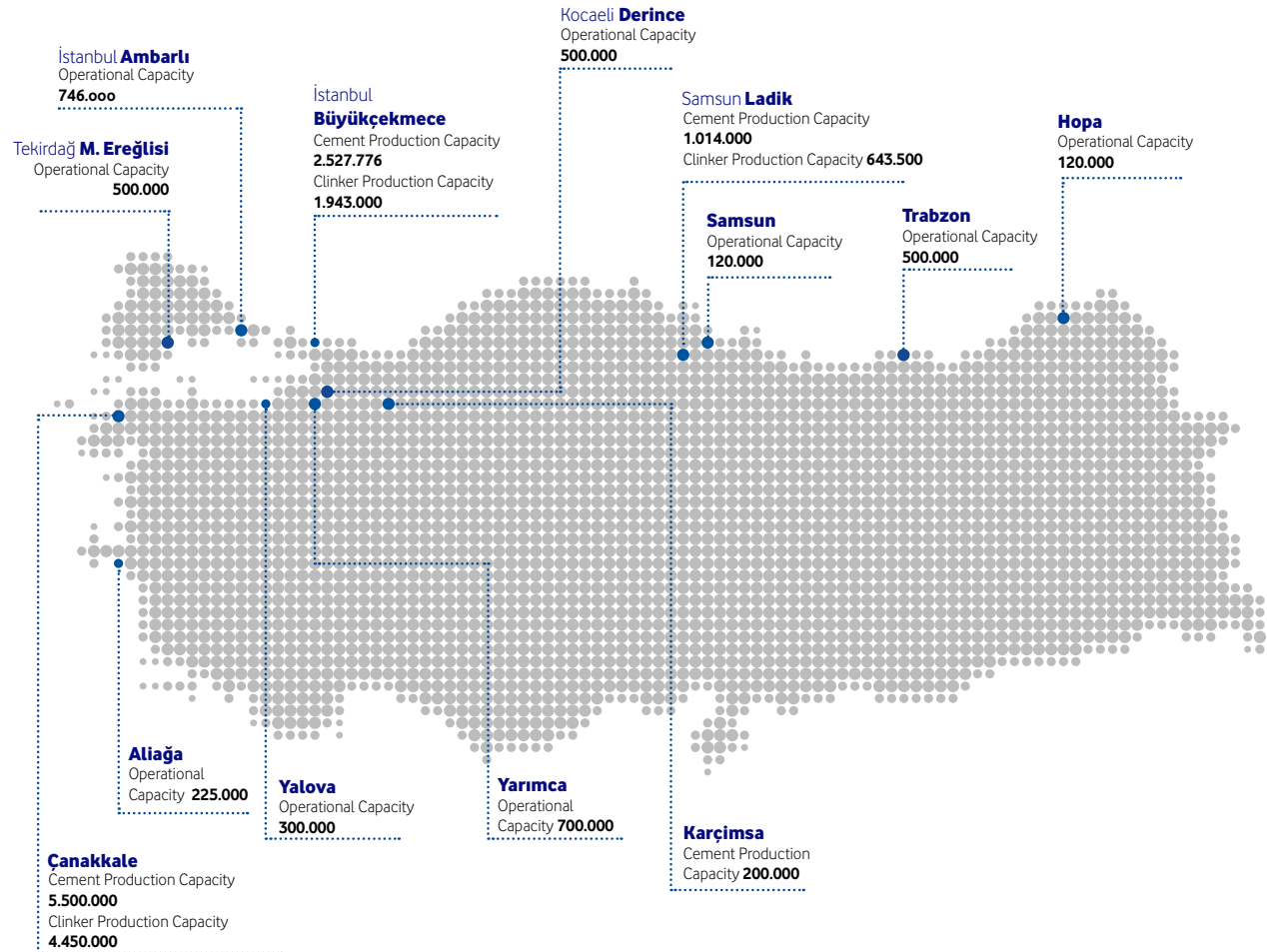
Net Sales (million TRY)

Akçansa continues creating value for its stakeholders with its successful performance.

### Total Sales (million tons)



## PLANT CAPACITIES Tons/Year



## Financial Operational Indicators

Sales (million tons)	2013	2014	2015	2016	2017
Total Cement - Clinker	7,7	7,5	7,6	7,9	8,0
Cement-Total	6,8	6,8	6,9	7,5	7,6
Domestic	5,9	6,2	6,2	6,4	6,6
Abroad	0,9	0,6	0,7	1,1	1,0

Clinker-Total	0,9	0,7	0,7	0,4	0,4
Domestic	0,0	0,1	0,0	0,0	0,1
Abroad	0,9	0,6	0,6	0,4	0,3
Ready-Mixed Concrete (million m3)	4,8	4,7	4,4	3,9	3,4

Million TRY	2013	2014	2015	2016	2017
Net Sales	1.202,2	1.410,9	1.468,5	1.461,1	1.519,0
EBITDA	270,2	389,8	429,8	407,9	308,5
EBITDA Margin (%)	22,48	27,6	29,3	27,9	20,3
EBIT	206,8	324,4	358,8	332,8	225,5
EBIT Margin (%)	17,2	23,0	24,4	22,8	14,8

Profitability	2013	2014	2015	2016	2017
Net Profit (million TRY)	157,9	248,8	281,1	286,4	119,1
Earnings per Share	0,82	1,30	1,5	1,5	0,8
Dividend per Share (Gross) (%)	75,43	118,2	134,6	123,9	66,9
Net Financial Borrowing (million TRY)	163,5	85,0	91,1	185,1	332,7
Equity (million TRY)	987,6	1.143,0	1.187,2	1.215,0	1.096,9
Total Assets (million TRY)	1.477,2	1.602,5	1.705,1	1.843,2	1.916,2



# ACHIEVEMENTS DURING THE REPORTING PERIOD 2016

- Rewarded as **"The Most Admired Company in the Turkish Cement Sector"** for the 15<sup>th</sup> time in the **"The Most Admired Companies of Turkey 2015"** research organized by GFK and Capital Magazine.
- Secured its cardinal position amongst cement companies achieving 61st position this year, in the **"500 Largest Industrial Corporations of Turkey 2015"** research conducted by Istanbul Chamber of Industry.
- Named as **"The Group Company Creating the Most Value"** by taking the first place amongst Sabancı Group Companies in **"Golden Collar Awards"**. Within the same competition, Akçansa awarded with the first place in **"Equality at Workplace"** category, the first place in personal category for "Market Orientation" and mension award in "Investment in People".
- Akçansa, uluslararası insan yönetim ve gelişim standardı olan **Investors In People'a (IIP)** ilk başvurusunda ve ilk değerlendirme sonrasında **Altın Standart** aldı.
- Akçansa is entitled with **Golden Standard** after its first application and evaluation for **Investors in People (IIP)**

which is an international standard for management and development of human resources.

- In 2015 Akçansa raised its score from 92D to B in **CDP Climate Program** which supports integration of climate change and energy efficiency in business and system of thought.
- Specially developed under Betonsa brand, 100+Beton product of Akçansa, recognized globally and received **"Excellence Award"** in **Concrete Construction Competition** organized by American Concrete Institute (ACI).
- **Betonik City Project**, which Akçansa integrated in globally popular 3D game enabling various designs with cubes, has received **Felis Success Award**.
- My Neighborhood Project received Best CSR Project from **JCI Culture Young Leaders and Entrepreneurs Associations**. Projects are evaluated according to their conformity to UN Sustainable Development Goals.
- Akçansa's Microalgae Project, which aims at reducing carbon emissions, received Low Carbon Heroes Award in 3rd Istanbul Carbon Summit.



# RAPORLAMA DÖNEMİNDE KAZANILAN BAŞARILAR & ÖDÜLLER



- Rewarded as “**The Most Admired Company in the Turkish Cement Sector**” for the 16<sup>th</sup> time in the “**The Most Admired Companies of Turkey 2016**” research organized by GfK and Capital Magazine.

- Secured its cardinal position amongst cement companies achieving 63<sup>rd</sup> position this year, in the “**500 Largest Industrial Corporations of Turkey 2016**” research conducted by Istanbul Chamber of Industry.

- Akçansa Samsun Ready-Mixed Concrete Facility, which responds fully to the requirements of international best practices, standards of occupational health and safety and new Occupational Safety Law, received the first place in “**Safe Work Healthy Life Awards**” conducted by HeidelbergCement. As the result of evaluations made for 75 facilities, Samsun Ready-Mixed Concrete Facility received the best score.

- Akçansa received 5 awards from **Golden Collar Awards** organized for Sabancı Group Companies. Akçansa received 1<sup>st</sup> place in “**Synergy**” category and individual category of “**Market Orientation**”, mention award in “Digitalization” and “Investor in People” categories, Special Jury

Prize in “**Innovation and Corporate Entrepreneurship**” categories.

- Akçansa’s social responsibility project **My Neighborhood**, received Silver Stevie Award in Best CSR Program of the Year in Europe category of the **International Stevie Business Awards** which is one of the most prestigious business award competition in the world. My Neighborhood has also been rewarded in Quality Education category of Sustainable Development Academy Awards organized by **CSR Association of Turkey**.

- Since 2011, Akçansa voluntarily participates in **Climate Change** and **Water Programs** of CDP. By sharing its strategies, goals and roadmaps in climate change and water management, this year, Akçansa received B- score in climate change program, B score in water program.

- Akçansa received 9 different awards with its 2016 Annual Report and 4<sup>th</sup> Sustainability Report from LACP, one of the most prestigious public relations and communication competitions.



# GOVERNANCE AND SUSTAINABILITY

Akçansa has a corporate governance structure based on the principles of transparency and accountability, aimed at full legal compliance and shaped in line with international standards.





# PAYDAŞLARIMIZLA GÜÇLÜ BAĞLAR KURARAK BİRLİKTE KATMA DEĞER ÜRETİYORUZ.

## Management Structure

The Board of Directors of Akçansa consists of six members elected by the General Assembly, two of which are independent members according to the CMB definitions. There is no executive director in the Board. All but one of the members of the Board of Directors have the qualifications of local membership and there is one female member. The offices of Chairperson of the Board and General Manager are performed by different individuals. Akçansa General Manager, who has executive responsibilities chairs the Executive Board composed of senior executives representing various fields of expertise.

The Audit Committee, the Corporate Governance Committee, and the Early Detection of Risks Committee have been established in order to ensure that the responsibilities of the Board of Directors are carried out more efficiently. The Corporate Governance Committee also fulfills the duties of the Nomination Committee and the Remuneration Committee.

As a member of the Corporate Governance Association of Turkey, Akçansa closely follows and adopts the developments in corporate governance promptly and supports works conducted in this area.

## Internal Audit and Risk Management

Akçansa follows a risk management model based on the risk management procedures and mechanisms adopted by Sabancı Holding

and HeilbergCement Group companies. The purpose of this model is to determine, monitor and mitigate all probable risks that the company may face. Precautionary approaches are developed through evaluating social, environmental and economic risks specified in sustainability management within this model.

The Early Detection of Risks Committee is the highest-level body responsible for Akçansa risk management, and the risk management activities are carried out by a separate specialized unit. The current situation for all identified risk factors is presented to the Board of Directors in two-month periods with reports prepared in line with ISO 30001 Standard.

Akçansa Internal Audit Department periodically conducts programed and thematical audit studies in compliance with the standards prepared by the International Internal Audit Institute. These activities are conducted involving matters ranging from business ethics to processes yielding operational and financial results. Improvement studies are carried out in line with the findings achieved.

## Excellence and Quality

Akçansa follows national and international quality and management system standards in order to maintain internationally accepted level of excellence in business processes and products, as well as performs periodic external audit and verification studies. Within this scope, all Akçansa facilities are operated in accordance with the requirements

of ISO 9001 Quality Management System, OHSAS 18001 Occupational Health and Safety Management System, ISO 14001 Environmental Management System and ISO 50001 Energy Management System. In addition to the management systems, there are also production documents that comply with relevant standards for all the products. More information on integrated management systems can be found at [www.akcansa.com.tr/en/our-integrated-management-systems](http://www.akcansa.com.tr/en/our-integrated-management-systems).

## Business Ethics

Akçansa defines its corporate principles, ethical values and standards within the framework of Code of Business Ethics. The rules laid out in this document guide company's managers and employees to fulfill their responsibilities on time, in full and within the scope of legal regulations, internal norms and contracts, to bring the benefit of the corporation at the forefront, and to avoid any behavior that might harm the corporation. Various corporate policies were set out in the Code of Business Ethics that define the methods to be followed when the principles are carried out.

It is the responsibility of the executives to create a corporate culture and working environment promoting ethical principles and the Code of Business Ethics is binding for all operations and business processes of the company, members of the Board of Directors, senior managers and all employees. All suppliers, subcontractors, dealers and business partners are also expected to act in accordance with these principles in order to ensure that the positive effect of ethical



rules dominates the entire value chain. On the other hand, the Supplier Code of Business Ethics is set out for suppliers to follow in their relationship with Akçansa.

Akçansa Code of Business Ethics describes ways and strategies in decision-making and management of business processes or how to report and resolve in case of non-compliance with business ethics. Within this context, Akçansa employees and stakeholders can communicate their notifications regarding ethical principles confidentially to Human Resources, Ethic Principle Consultant or Sabancı Holding Ethics Board by phone or e-mail in secrecy. This contact information is also included in the Code of Business Ethics document.

It is important to equip employees and managers with the right information to actively employ the Code of Business Ethics. For this reason, newly recruited employees are provided primarily with a booklet of Akçansa Code of Business Ethics. Following this, an e-learning training is conducted to introduce ethical principles. Also, SA-Ethics yearend survey practice is implemented in order to keep current employees' awareness of ethical principles alive. Besides business ethics, the aspect of human rights in business life is also included in these practices. During the reporting period, 65 newly recruited employees were trained in ethical principles and 564 employees participated in the SA-Ethics yearend evaluation practice in 2016 and 512 employees participated in 2017. In 2017, the SA-Ethics yearend practice participation rate was above 96%. During the reporting period, a total of 247 Akçansa

employees participated in the Fight Against Corruption and Bribery Training designed in 2016.

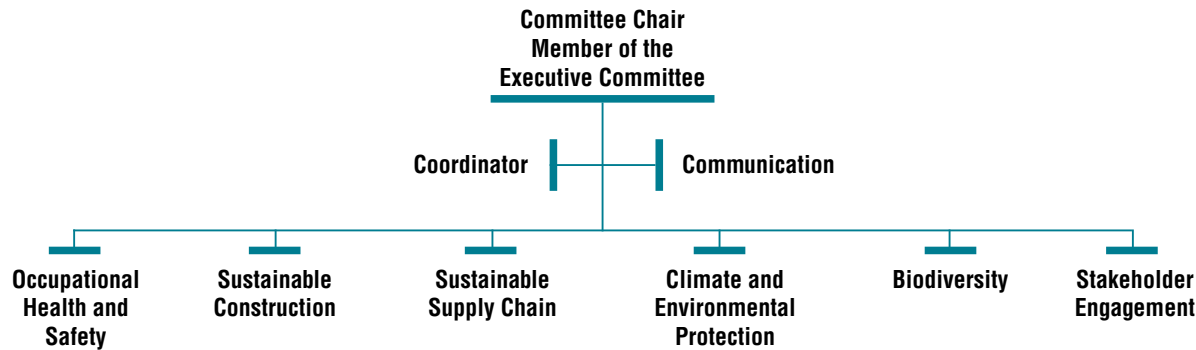
Akçansa Code of Business Ethics and Supplier Code of Business Ethics can be found at <http://www.akçansa.com.tr/en/sustainability/our-code-of-business-ethics/>

Akçansa aims to comply with the legal regulations and international rules of law in all its operations. Being a publicly traded company, the communiqués issued by the Capital Markets Board constitute an important part of Akçansa's legal compliance program. It is aimed at following legal regulations that effect company's activities in timely manner and ensuring compliance before entering into force. In case of non-compliance, necessary action plan is prepared, and the situation is resolved immediately.

On the other hand, an important aspect of legal regulations and code of business ethics is the prevention of unfair competition. In addition to compliance studies conducted for this purpose, competition training for company employees is also provided. In the 2-year period covering the reporting period, a total of 75 employees were provided with 275 person\*hour of competition training.



# SUSTAINABILITY MANAGEMENT



Akçansa adopts a sustainability management approach that is the main element of its corporate vision, covering all business processes extending from the company to society, from raw material production and sales marketing to after-sales relations with end users. This approach is shaped by assessments regarding global trends and outputs obtained from the works of international initiatives. Within this context, Akçansa is a participatory of the UN Global Compact, UN Women's Empowerment Principles, CDP Climate Change and CDP Water programs.

The Sustainability Ambitions put forward by HeidelbergCement also form the basis of Akçansa's sustainability policy and goal structure. In addition, Akçansa also incorporates local agenda and stakeholder expectations into its sustainability goals.

Akçansa Sustainability Committee carries out annual practices and performance evaluations determined by the company in line with its sustainability goals. The Committee, which is chaired by a member of Akçansa Executive Board, also reports activities and the results obtained to the senior management bodies.

Akçansa Sustainability Committee continues to work under six thematic workgroups. The committee is composed of the members of the thematic working groups formed in parallel with strategic targets, communication manager and coordinator, under the presidency of Akçansa Executive Board representative.



Global Compact  
Network Türkiye





Material Issues in the Akçansa Value Chain	Raw Material	Cement	Ready- mixed Concrete	Aggregate
Occupational Health and Safety	*	*	*	*
Dust Emissions	*	*		
Greenhouse Gases and Other Pollutant Emissions		*		
Energy Efficiency		*	*	
Biodiversity	*			
Employee Development	*	*	*	*
Legal Compliance	*	*	*	*
Alternative Fuel and Raw Materials	*	*	*	
Business Ethics and Fight Against Corruption	*	*	*	*
Social Development	*	*	*	*
Sustainable Buildings and Urbanism		*	*	

### Akçansa Sustainability Issues

Akçansa establishes sustainability management based on HeidelbergCement Sustainability Ambitions 2030, which is the common goal of partners around the world while local expectations and requirements are determined by the materiality study carried out in line with the principles set out by the GRI Standards. This creates a portfolio of issues unique to Akçansa, in which both global and local goals are addressed together.

As HeidelbergCement entered a new period by updating its sustainability ambitions, a materiality study was carried out during the reporting period to reevaluate the sustainability issues of Akçansa. In the materiality study, several different sources were used and the results obtained were checked and approved by the senior management. The main component of the materiality study is a screening study in which a group of 130 people composed of external stakeholders such as suppliers, managers, NGOs and opinion leaders, as well as company employees and managers participate. In this study, social, environmental and economic impacts of Akçansa activities and stakeholders' expectations and opinions were prioritized through the questions asked to the participants. In addition to this, the comments of various external stakeholders on

our previous reporting studies were taken into consideration during the materiality study.

### Sustainable Development Goals

Akçansa supports UN Sustainable Development Goals (SDG), which was accepted in the United Nations General Assembly in 2015 with the participation of 193 member countries. The Sustainable Development Goals, to put it shortly, consists of 17 goals for 2030, aiming to end poverty and hunger worldwide, fight against inequality and injustice worldwide and protect our planet by 2030.

For Akçansa, supporting Sustainable Development Goals is to act in accordance with our responsibility to reduce social, economic and environmental problems. In this context, all 17 goals are valuable for Akçansa, and priority is given to the goals that overlap with the field of operation and the expectations of stakeholders. So, in the prioritization study, employees and external stakeholders were asked on which of these Sustainable Development Goals should be focused. As a result of these assessments, the idea that internal and external stakeholders should focus on the goals of "Industry, Innovation and Infrastructure", "Decent Work and Economic Growth", "Affordable and Clean Energy", "Climate Action", "Responsible

Consumption and Production", Partnerships for the Goals" is adopted.

### Akçansa Sustainability Ambitions

Akçansa evaluates the results of its sustainability activities within the goal structure prepared in line with the HeidelbergCement Sustainability Ambitions program. HeidelbergCement Sustainability Ambitions 2020 program was launched in 2016-2017 covering the reporting period and the HeidelbergCement Sustainability Ambitions 2030 program was launched to be effective from the next period onwards.

## Akçansa Sustainability Ambitions 2020 Progress Chart

For more information or submitting your views and suggestions about this report, please contact with:

	Goal Definition	KPIs	Unit	2016 Realization	2017 Realization	Target 2020
Cement		Accident severity rate		68,6	91	0
		Fatalities		1	0	0
		Lost time accident frequency rate		3,3	4	0
RMC	Establishing best possible OHS conditions for employees, contractors and 3rd parties	Accident severity rate		68,38	68	0
		Fatalities		0	1	0
		Lost time accident frequency rate		5,01	4	0
Aggregate		Accident severity rate		285	729	0
		Fatalities		0	0	0
		Lost time accident frequency rate		7,1	5	0

### 2. Sustainable Supply Chain Management

	Goal Definition	KPIs		2016 Realization	Gerçekleşme 2017	Hedef 2020
RMC, Cement, Aggregate	Alternative fuel supply	Practices for increasing supply of alternative fuels		6,01%	8,41%	29%
	Raising awareness of stakeholders in the supply chain on sustainable business models	Projects with stakeholders in the supply chain		In 2017, we got together with our business partners through "Sustainability Seminars" organized in our Büyükçekmece Factory. During the seminar, we shared information on historical development of the sustainability, practices conducted in Turkey and abroad, as well as the pathwat that Akçansa follows in terms of sustainability. We finalized the event after receiving their views and recommendations. we aim at organizing similar events at all other operation locations and establishing cooperations.		Establishing KPIs for sustainability in the supply chain

### 3. Positive Contribution to Biodiversity

	Goal Definition	KPIs		2016 Realization	2017 Realization	Target 2020
Cement and Aggregate	Preparation of rehabilitation plans and their approval by public authorities	Rate of quarries with rehabilitation plan approved by public authorities		100%	100%	100%
	Decommissioning of mine sites where the production is terminated	Areas rehabilitated (ha)	ha	18,00	18,6	25,0



## Akçansa Sustainability Ambitions 2020 Progress Chart

### 4. Fight Against the Climate Change

	Goal Definition	KPIs	Unit	2016 Realization	2017 Realization	Target 2020
Cement	Reduction of fossil fuel use	Rate of fuel substituted by waste (as thermal value)		6,01%	8,41%	29%
		Rate of fuel substituted by biomass (as thermal value)		2,56%	3,23%	6,33%
	Reduction of clinker use in the cement	Clinker usage rate in the cement		89,10%	89,10%	79%
Cement	Continuous monitoring of emissions	NOx emissions		"Büyükçekmece Factory: 713 Çanakkale Factory: 734 Ladik Factory: 720,4"	"Büyükçekmece Factory: 680,66 Çanakkale Factory: 827 Ladik Factory: 890,4"	< 800 mg/m <sup>3</sup>
		SOx emissions		"Büyükçekmece Factory: 29,35 Çanakkale Factory: 7,51 Ladik Factory: 11,2"	"Büyükçekmece Factory: 43,85 Çanakkale Factory: 20,64 Ladik Factory: 8"	< 50 mg/m <sup>3</sup>
		Dust emissions		"Büyükçekmece Factory: 15,8 Çanakkale Factory: 16,42 Ladik Factory: 10,93"	"Büyükçekmece Factory: 18,5 Çanakkale Factory: 16,83 Ladik Factory: 10,27"	< 10 mg/m <sup>3</sup>
		Specific CO2 emissions (kg CO2/ton clinker)		858	856	830
Cement	Online monitoring of NOx and SOx values	Rate of rotary kilns monitored online		100%	100%	100%
	Dedusting of factories	Covered stokehole rate		100%	100%	100%
		Rate of covered clinker conveyor belts and stokeholes		100%	100%	100%
	Replacement of electrostatic filters with bagged filters	Bagged filter rate in raw mills, kilns and cement mills		99,00%	99%	100%
RMC	Storage of aggregate in closed units	Rate of facilities where the aggregate is stored in covered units		75,00%	75,00%	100%
	Increasing usage of new mixer and pumps	Rate of mixers and pumps under 10 years-old		35,00%	35,00%	100%
	Reduction of environmental complaints	Number of Complaints / Year		1	0	0
Aggregate	Installation of truck tire washing systems	Rate of washing systems installed facilities		25%	25%	100%
	Covering tops of the facilities	Rate of top-covered facilities		100%	100%	100%
Cement, RMC, Aggregate	Establishing an efficient water management	Water saving rate and projects for efficient management of water		Water withdrawal has not been reduced during the reporting period.		Achieving 5% reduction in water consumption compared to 2013.

## Akçansa Sustainability Ambitions 2020 Progress Chart

### 5. Sustainable Construction Solutions

	Goal Definition	KPIs	Unit	2016 Realization	2017 Realization	Target 2020
RMC	Becoming solution provider in green building projects	Rate of projects contributed in Marmara market	%	23%	27%	30%
RMC and Cement	Reducing environmental footprint of building	Obtaining environmental product labels (EPD) for cement and concrete		Akçansa R&D activities are focused on providing more energy efficiency, reduction of clinker/cement rate, sustainable production, value-added and environmentally friendly products. We establish partnerships with various universities and institutions on these activities. Our exemplary products are A+Beton, Solidcem, Duocem		Developing products and solutions regarding sustainable construction solutions.
Aggregate	Production of recycled aggregate	Recycled aggregate production rate in total aggregate production	%	0%	0%	20%

### 6. Stakeholder Engagement

	Corporate Citizenship	Conducting corporate citizenship projects in line with sustainability strategy		My Neighbourhood CSR project continued its trainings for the second year. Through these events aimed at 6-12 age group primary school students and their parents 15.000 participants were trained. One third of children in Büyükçekmece received the training.	-Voluntary Reader and "Learning Kid, Responsible Individual" projects have been conducted -In addition to the trainings for students and parents, teachers have been trained through My Neighbourhood CSR Project. Additional 10.000 participants to the number of individuals trained as of 2017 year-end have been trained.	Contributing development of society and growth.
	Increasing stakeholder engagement	Researches and mechanisms regarding increase of stakeholder engagement		Neighbour Councils continued periodically in all factories. We have organized various events aiming different stakeholder groups such as Dealer Council and analyst meetings. Stakeholder suggestions were reviewed and applicable examples were adopted.	We have hosted various stakeholder groups with Open Door events organized in the factories. Leaders of Future Meeting has been organized. Various other types of meetings have been held such as Dealer Councils and analyst meetings. Öneriler değerlendirilerek uygulanabilir olanları hayata geçirildi. Stakeholder suggestions were reviewed and applicable examples were adopted.	Developing mechanisms which is directly channeled to Board of Directors for responding stakeholder expectations.
	Being the employer of choice	Place at employer of choice listing		In line with our corporate vision and "Human Focus and Respect" as one of the 5 key corporate values, we monitor and continuously develop all our processes with human interaction. In this vein, in 2016, Akçansa has been rewarded the Gold Standard, the highest level of IIP - Investors In People which is the first and only international standard for development and management of human resources.	In 2017, development areas in human focused processes defined through Employee Engagement Survey and focus groups meetings such as "Coffee-Break" and "Listening to You". In 2017 we established Here You Are Equality Network at Akçansa thought which supports individual and professional development of female employees of Akçansa as well as raising awareness intra and extra company. Diversity goals have been integrated to Corporate and executive level individual performance KPIs. In 2019 ÇHDA and IIP reviews will be reevaluated.	Being "Employer of Choice" within the sector permanently and being amongst the first 50 company in all sectors.



Stakeholder Group	Practice Type and Frequency
<b>Employees</b>	Survey and Research (at various intervals); Training Activities, SA-ETHICS Principles, Akçansa Code of Business Ethics, Corporate Portal, Announcements and Posting (continuous); Suggestion and Rewarding System (instant); OHS Committees, Function Based Meetings (monthly); Working Groups and Committees (at least six times a year); Akçansa Harcı Magazine (three times a year); Performance Management and Career Development Meetings, Social Activities (at least twice a year); Management Meetings, Communication Meetings, Annual Report, Environment Day (annually); Sustainability Report, Working Life Evaluation Survey (biannually); We Listen to You (periodic)
<b>Principal Shareholders</b>	General Meetings, Annual Report (annually), Board of Directors Meetings, Financial Performance Meetings (quarterly); Sustainability Report (biannually); Material Disclosure (upon necessity)
<b>Minority Shareholders</b>	Investor Presentations, One on One Interviews (upon request); General Meetings, Annual Report, Financial Performance Meetings (quarterly); Sustainability Report (biannually); Material Disclosure (upon necessity)
<b>Dealers</b>	One on One Meetings (upon request); Overseas Dealer Meetings, Domestic Dealer Meetings, Annual Report, Sustainability Report (biannually); Akçansa Harcı Magazine (twice a year)
<b>Suppliers</b>	One on One Meetings (upon request); OHS Committees (monthly); Annual Report, Sustainability Report (biannually); Supplier Business Ethics Principles (continuous); Akçansa Harcı Magazine, Business Ethics Briefings (twice a year)
<b>Product End Users</b>	Product Labels, Marketing Communication Studies (continuous); Participation in Fairs, Product Information Training (several times a year); Annual Report, Sustainability Report (biannually)
<b>Local Communities</b>	Complaint System, Social Projects, Donations and Sponsorships (upon request); Information Meetings (upon necessity); Annual Report, Sustainability Report (biannually); Neighbor Council (annually)
<b>Sectoral Actors</b>	Meetings and Discussions, Exemplary Projects and Initiatives (upon request); Participation in Fairs (several times a year); Annual Report, Sustainability Report (biannually)
<b>Local Administrations</b>	Meetings and Discussions, Support for Infrastructure Investments, Festival and Social Event Sponsorships (upon request); Annual Report; Neighbor Council (annually) Sustainability Report (biannually)
<b>Neighboring Institutions</b>	Meetings and Discussions (upon request); Informative Reports (at various intervals); Public Audits (at various intervals/instant); Annual Report, Neighbor Council, Sustainability Report (biannually)
<b>NGOs</b>	Memberships (continuous); Working Groups, Committee and Board Memberships (periodic); Joint Projects and Initiatives, Meetings and Discussions (upon request); Annual Report, Sustainability Report (biannually);
<b>Universities and Academics</b>	Scholarship and Internship Opportunities, Participation in Academic Congresses and Seminars (continuous); R&D Project Partnerships, Sponsorship and Supports; Support for Academic Research and Publications, Meetings and Discussions (upon request); Annual Report; Concrete Ideas Project Competition (annually), Sustainability Report (biannually)
<b>Employee Families</b>	Informative Studies (continuous); Akçansa Harcı Magazine (three times a year); Social Events (at least twice a year); Environment Day (annually)
<b>Opinion Leaders</b>	Meetings and Discussion (upon request); Annual Report, Sustainability Report (biannually)
<b>Media</b>	Interviews and Talks, Neighbour Council (annually); Meetings and Discussions (upon request); Press Releases, Material Disclosure (upon necessity); Annual Report, Sustainability Report (biannually)

## Stakeholder Engagement

Akçansa adopts a participatory management approach whereby it remains in dialogue with its the stakeholders. Different communication channels and processes have been determined according to the qualities of the stakeholder group contacted. Stakeholder engagement practices are identified with short and long-term goals and performance follow-up is conducted.

Paydaş Haritası



Through stakeholder engagement practices, Akçansa learns the expectations, opinions and recommendations of its stakeholders. Each stakeholder group has different opinions and expectations, and the evaluations are used to realize and plan further studies. A study as such was carried out to identify sustainability priorities and expectations of key stakeholder groups with the top priority were identified. For example, when suppliers are asked, it is seen that their expectations from Akçansa

focus on occupational safety, sustainable buildings and urbanism, legal compliance, dust emissions and employee development while the expectation of NGOs focus on business ethics, alternative raw materials and energy resources in addition to occupational safety and legal compliance. The expectation of dealers seems to concentrate on issues such as occupational health and safety, legal compliance and employee development.

# ECONOMIC VALUE AND EMPOWERING INNOVATION

One of the main pillars of Akçansa's sustainability approach is to generate sustainable economic value for its stakeholders through its business model. Sustainable economic value can be obtained by adapting quickly to ever-changing market conditions, achieving profitability and productivity in production and commercial activities in the economic system from supply to consumption and to produce ecological, operational and economical added value with functional and environmental products. Thus, on the one hand, profitability is ensured for the company and on the other hand, direct or indirect benefit is generated for the totality of the market in which the company operates. In order to achieve this goal, it is necessary to develop innovative products as well as to prioritize innovative thinking in production and service processes.





### Cement and New Economy Trends

Cement and concrete have been used throughout the history as a reliable, durable, easily applicable and low-cost material to create infrastructure for civilizations. Concrete structures such as buildings, roads, bridges, tunnels and dams have always been regarded as symbols of development. Building technologies developed as cement and concrete technologies evolved. As the building technologies developed, the level of development increased. As one of the main catalysts for the development, cement and concrete will perform an important task in the future as in the past.

The world population is increasing at a rapid pace, and it is seen that it has a larger share of urban population than rural population. Today, the problems that we face indicate evidently that a different urban structure needs to be developed in the future. It is obvious that it should be considered together with its social and economic dimensions besides its physical dimensions. This new urban planning model, which we call sustainable urbanism, aims to build strong, safe, low-cost cities where everyone can sustain their lives in economic, cultural and social welfare. These new cities are expected to be smarter, more environmentally friendly and more

inclusive with their physical armatures and socioeconomic networks. In order to continue the historical role of cement and concrete in development, new expectations and needs must be met with a more innovative view supported by high technology.

This transformation in urban life is similarly observed in industrial life as well. The facts that resources may fall behind to meet the needs of growing population and the consumption level is generating environmental problems are the two main reasons for this transformation. This situation also reveals the need of a transformation in the industrial organization as well. In this context, one of the leading models is the circular economy. Circular economy refers to re-evaluating industrial output as an input for other industries and using waste as a raw material if possible without requiring a recycling operation, rather than producing products and services using new resources. The cement and ready-mixed concrete sector have the potential to offer significant opportunities in terms of circular economy. Various waste groups have already been easily recycled into energy sources or products with this logic. Cement producers, traditionally regarded as a source of high environmental impact with their products and production technologies, have become

a sustainable energy producer and a waste recycling center with very low transformations investments compared to their peers.

For this reason, Akçansa carries out R&D activities for product and process development, adding more environmentally friendly, more reliable and value-added special products to its portfolio and transforming its production organization to keep up this new industrial structure.



## SPECIAL CEMENT AND READY-MIXED CONCRETE PRODUCTS

**Akçansa develops new special cement and concrete solutions for recently emerging housing and infrastructure expectations arising from growing population and developing construction technologies. Special ready-mixed concrete products of Akçansa attract great attention in the market. The sales of special products reached 300 thousand m<sup>3</sup> by the end of 2017. As a result, the share of special product groups in ready-mixed concrete products reached 9%.**

### Wintermix

Wintermix is a product that shortens mold-taking period on the days when mild frost and sudden temperature drops are likely to occur. It has high level of strength, protects the concrete against frost and it does not harm the reinforcement. It also saves time by shortening the mold taking period.

### KratosBeton

Produced in the cooperation with Akçansa and Kordsa Global, Kratosbeton with fiber reinforcement, enables the construction of safer, stronger and sustainable structures. It can be used in industrial-application pavements, grouting and field-placed concrete, shotcrete and tunnel linings. At the same time, it provides time and cost advantages with its easy applicability.

### 100+ Beton

100 + Beton is a concrete product that can maintain its strength for many years, involving low alkali special cement and mineral additive in its production. It is especially designed for large scale infrastructure projects such as bridges, undergrounds, motorways, that require hundred and more years of service life.

### A+ Beton

A+ Beton, an environmentally-friendly concrete product with low carbon emission, has been specially produced for certified green buildings and sustainable structures through the use of "Ground Blast Furnace Slag" at rates reaching up to 70%.

### Solidcem

In recent years, in order to respond to the need of special quality products required for increasing infrastructure investments, Akçansa focused its R&D activities in this direction and developed products such as 100+Beton and 100+Çimento, which were awarded by the American Concrete Institute. Ensuring a competitive advantage with these products, Akçansa, the concrete supplier of Yavuz Sultan Selim Bridge, continued to work on product development for infrastructure investments with Solidcem.

Thanks to its researches and project experiences, Akçansa developed the first special cement in the sector intended for the use in ground reinforcement works, responding to a great need in the infrastructure sector. Solidcem, a multi-functional cement product offering all the properties needed in infrastructure projects, stands out with its outstanding performance as well as by being environmentally-friendly.

Akçansa ranked first in 2017 "Market Orientation" category with Solidcem product in the Sabancı Holding Golden Collar Awards.



**SOLIDCEM**

## Güç Zeminde Artık!

Tüm yapı ve fabrikalarda zemin güçlendiren Jet-Grouting Sistemi ile uyumlu Solidcem, kimyasal ve biyolojik etkilere meydan okur.



**Yolbeton**

Yolbeton, a roller-compacted concrete (RCC), is a type of concrete road that is produced by blending finely-graded aggregate, binder materials, water and additives with different grades. During its production, steel drum and rubber wheeled cylinders are used to give its final form.

RRC roads are similar to traditional concrete roads in terms of their qualities, and similar to asphalt linings in practice. With these features, Yolbeton can be used on city streets and country lanes as an alternative road surfacing by being applied in a fast and economical way.

**Viskotemel**

Viskotemel is designed for use in foundation concrete. With its minimum of 50 cm spreading feature, Viskotemel provides a cost advantage and ease of application in projects that require non-permeability due to its low water/binder rate.

**Viskoperde**

Designed for use in vertical construction elements, Viskoperde ensures an ease of application by moving quickly through close outfits without the need for a vibrator with a minimum 65 cm spreading feature and increased fine aggregate percentage.

**Viskokat**

Designed for use in horizontal construction elements, Viskokat provides cost advantages and casting ease with its minimum 55 cm spreading feature, eliminating the need for surface correction labor.

**Viskobeton**

Viskobeton is a self-compacting concrete product. Thanks to its low water and binder rate, it is used in buildings that require high strength and resistance, reinforcement projects, compactly reinforced members and profile molds, areas where high quality smooth surfaces are required, urban constructions sites, aesthetic mold designs and places where it is not possible to use concrete vibrators.

**Drabeton**

Drabeton is a concrete product used in steel wire reinforcements and industrial floors. Drabeton, provides saving in labor during the stockings, placement and supervision stages at constructions sites. Areas of application are; floor concretes, concrete finishings and protection concretes, site concretes, factory floors, car parks, concrete roads, gas stations, stocking areas, grout-free floor concretes, cold air storage and floors, fitting concrete finishings, topping concretes, port coverings and shipyards.

**Fiberbeton**

Fiberbeton is produced by the adding polypropylene fibers to concrete in order to help prevent plastic shrinkage cracks and micro cracks likely to occur in field concretes and high strength concretes. This feature also increases fire resistance in hardened concrete.

**Fortabeton**

Produced by macro-synthetic fiber equipment, Fortabeton is able to achieve high bending, stretching, hitting and corrosion resistance especially in industrial floor concretes.

**Viskoşap**

Viskoşap has minimized cracking risk, has no grout, can be pumped, hardens quickly and has a pressure resistance of around 30 MPa. As a self-compacting screed system, this product aims at minimizing the problems experienced in traditional concrete finishing.

**İzoşap**

Being light and supporting thermal insulation, İzoşap reduces unnecessary loads on structures and can be applied with concrete finishing or concrete pump.





**Yeşilşap**

Yeşilşap, an environmentally-friendly product, which reduces carbon dioxide emissions by up to 35% through the use of cement with special mineral additives in its production, is 25% lighter than traditional screed products and improves thermal insulation.

**Polarbeton**

Polarbeton is 80% lighter than traditional screeds, and the spherical air pockets created by special chemical additives used in its production makes the concrete much lighter and its insulation very effective.

**İzobeton**

İzobeton is produced for concrete finishing and filler concrete applications applied to avoid unnecessary loads on the structure, inner walls and fixtures of prefabricated structures where heat and sound insulations are required, on- or underwater insulation coating as leveling or protective concrete and

repairs of old floors that require filling but do not have high resistance expectations.

**Hazır Yaş Sıva**

Hazır Yaş Sıva, which is produced in concrete plants by using special chemical additives and then delivered to the construction sites in transmixers, is suitable for use in construction sites for up to 48 hours without losing its consistency in suitable storage conditions. Thanks to its lightweight, flexible structure and perfect adhesion characteristics, the product can be used on bricks, gas concrete, briquette surfaces, internal and external plasters, walls and ceilings.

**Dekobeton**

Produced with press concrete technology, Dekobeton is a decorative floor covering system designed for exterior spaces. Dekobeton's main areas of use include landscaping, parks, pool sides, urban recreation areas, environmental landscaping,

roads, marinas and piers, shopping centers, parking lots, gas stations.

**Shotcrete**

The main feature of Shotcrete, which is produced as dry mixture in ready-mixed concrete plants, is to be sprayed with pressurized pumps and special powdered chemical supplements. Shotcrete is used in underwater insulation protective concretes and slope stabilization application of structures such as galleries and tunnels.

**Pratikbeton**

Pratikbeton is a product that provides a special solution on long distances with a flexible piping method. In the circulations formed at the construction sites, it provides practical solutions in case the pump cannot approach the pouring location, providing advantages in terms convenience and speed.

**DUO<sub>2</sub>CEM**

Duocem, a stable, highly thin and environmentally-friendly product, causes 10% less greenhouse gas emissions, while its strength and durability equivalent to the features of Portland cement. Duocem has a very wide range of application areas and it is aimed at producing less than 30 ktons of CO<sub>2</sub> emission.



### R&D Studies

R&D activities at Akçansa focus primarily on energy efficiency, reduction of clinker/cement ratio, sustainable production, value-added and environmentally friendly products. Akçansa cooperates with various universities and organizations while carrying out these activities.

During the reporting period, together with Sabancı University, Akçansa continued its project of "Use of Activated Natural Materials as a Substitute to Cement" as part of low carbon product design. In cooperation with Boğaziçi University and Kordsa, the project of "Concrete Road Design Compresses with Macro Synthetic Fiber Cylinder" was started; in cooperation with Kordsa, the project of a value-added product, "Bag Cement with Micro Synthetic Fiber Content", was introduced. In addition, Akçansa worked in cooperation with Vuruşkan and Ankaref companies for the project of "Registering and Monitoring Concrete Samples with RFID Tag". As an industrial consultant, Akçansa supported "Permeable Concrete Road" project, which was carried out as part of TÜBİTAK 2209-B Undergraduate Graduation Thesis Support Program. In cooperation with Turkey Atomic Energy Authority and IŞTON, "Concrete Design with Nuclear Shielding Performance" project was started.

Akçansa R&D Directorate continued to cooperate with universities, participate in conferences and give presentations during the reporting period. In 2016, in cooperation with IMSAD and Yıldız Technical University, a course was offered to students of architecture on the subjects of cement and concrete as part of the production use cycle of construction products course. Akçansa attended SBE2016 Congress in Istanbul in 2016 with a presentation entitled "A Sustainability Approach in Construction Sustainability Management, Innovative and EcoFriendly Products".

In 2017, within the scope of Cement Chemistry and Technology course opened in the cooperation with Akçansa, Çimsa and Sabancı University, Akçansa experts informed students about the cement and concrete raw materials, cement and concrete production, the properties of cement and concrete. As part of the construction materials course launched with the support of IMSAD members for the students of İzmir Yaşar University Faculty of Architecture, Akçansa employees gave presentations on the production of cement and ready-mixed concrete, raw materials, sustainability and reinforced concrete. A seminar on R&D, innovation and innovative products in cement and ready-mixed concrete sector was offered for about 200 students of engineering and architecture

and another seminar on cement production, R&D, innovation, communication and human resources was held for the senior students of İTÜ Chemical Engineering.

At the Anatolian Meetings held by IMSAD and hosted by Kayseri Chamber of Industry in 2017, Akçansa presented its Mikroalgae project. With this project, Çanakkale Plant reduced greenhouse gas emissions in the furnace pipe by using microalgae as a CO2 trap in the cement production process. This project, which is the first in the cement sector, was also supported by TÜBİTAK. Akçansa employees presented four papers in the areas of current concrete applications and technologies in 2017 Concrete Istanbul Congress organized by Turkey Ready-Mixed Concrete Association.

The works carried out by Akçansa were deemed worthy of awards by various organizations in the reporting period. Akçansa received Low Carbon Heroes Award for the Microalgae Project at the Istanbul Carbon Summit in 2016. The Microalgae Project also ranked first in the IMSAD Future Investment Awards in 2017.

### Industry 4.0 Workshops

The concept of Industry 4.0 is becoming increasingly important as the traditional production methods are replaced by Internet supported smart production systems. Akçansa observes the potentials of industry 4.0 applications in the business processes of the company in order to keep pace with this transformation in a short period of time, performs studies to raise awareness among employees in this direction. In this context, during the workshops held in Büyükçekmece, Çanakkale and Ladik Plants in 2017, employees exchanged views on the opportunities that Industry 4.0 will bring for Akçansa and how these opportunities can be realized. Akçansa's Industry 4.0 roadmap was identified with team works by identifying projects Akçansa can carry out in the short, medium and long term.

### Akçansa Loyalty Programs, Dialogue with Dealers and Customers

Akçansa conducts continuous communication studies to create added value for its dealers and customers as it positions them as business partners. In the scope of the Customer Excellence Program, the company takes necessary actions by identifying expectations and needs through various means such as customer satisfaction and engagement surveys. In this direction, direct communication channels are established in order to build more effective and more comprehensive communication with dealers and customers, and various workshops and trainings are organized. Works conducted as part of Akçansa Loyalty Programs provide solutions to meet the rapidly changing needs of different customer groups, increase satisfaction and strengthen relationships.

### Yapı Club Portal

Yapı Club Portal is the address of the digital platform where Akçansa's bagged products are sold and under which all sales channels are collected. Business partners, participating in the program can access the technical documents they need and technical videos of the tutorials through this portal. Surveys shared through the system allow learning and quickly responding to customer opinions.

### akçansafirsatlari.com

As part of its customer satisfaction-oriented approach, Akçansafirsatlari.com online shopping site offers advantageous prices to Akçansa dealers, internal and external customers, and puts up limited number of products on sale at reduced prices at 10:00 on the 10th day of every month.

### Dealer Customer Support Line

Dealer Customer Support Program is a consultancy and information service provided 7/24 by specialists of every field that can create stress for Akçansa business partners and family members who may feel the need for research.

The aim of the program is to provide solutions to life events that Akçansa customers face in their business and private lives that affect their performance and productivity and to support them in creating added value for their companies in their business life. Support Line includes services in the fields such as psychological counseling, legal information, financial information, medical advice and information, waist neck back pain and office ergonomics, healthy nutrition counseling, newborn care information, social life and general information services, dental care plan, road assistance package and locksmith services.

### Future Leaders Program

Since the past reporting period, Akçansa organizes "Future Leaders" meetings and trainings for its new generation representatives of dealers to carry their business to the future and to emphasize the importance of institutionalization in family companies.

Works as part of the Future Leaders Program continued in the reporting period. Under the roof of Akçansa Sales Academy, general drama workshop program and communication skills training were provided. As part of the workshop, information on improving communication skills in business and social life was provided.

### Contributions to Local Economy

Cement and ready-mixed concrete are the sectors of local character starting with raw material production until the end user practices. There are direct and indirect impacts of the sector on the local economy caused by the participation of a large number of different stakeholder groups in production and service processes and the contribution of infrastructure and superstructure products. The fact that production and consumption are of local character generates indirect impact on the local economy through employment and manufactured construction stocks.

In the production of direct economic value, procurement operations have a significant share. Suppliers are expected to adopt certain labor norms, especially business ethics, environmental quality and human rights, as well as to meet specific product standards, quality, quantity and cost requirements.

A supplier of local character is a reason for preference in procurement decisions. Within this scope, of the 1,2 billion TRY worth procurement expenditure made in 2016, 77% were procured from local suppliers whereas 73% of the procurement expenditures in 2017, which amounted to 1.2 million TRY, were realized through local supply.





# REDUCING THE ENVIRONMENTAL FOOTPRINT

Faaliyetlerimizi Doğanın Hassas Dengesini Gözeterek Yürütüyoruz.



### Reducing The Environmental Footprint

Cement and ready-mixed concrete industry create environmental impact not only because of its product composition based on natural raw materials, but also because of its dependence on energy intensive production processes; moreover, it causes various emissions. However, today, the emerging approaches such as total footprint management and circular economy, the expansion of environmental management models, and the development of technologies serving to the mitigation of environmental impacts on production make it possible to reduce environmental impacts of cement and ready-mixed concrete industry substantially. Considering the value chain in general, modern techniques available in cement and ready-mixed concrete production are among good practices in reducing environmental impacts in other industries as well.

The reduction of environmental impacts is one of the key components of Akçansa sustainability management. The management of environmental impacts available in the program of Akçansa Sustainability Goals, which are based mainly on Heidelberg Cement Sustainability Goals in addition to UN Sustainability Management Goals, is conducted via a management approach that extends from senior management to on-site employees revolving around the whole value

chain such as other sustainability aspects. In managing the environmental impacts, globally approved management system standards, primary of which is ISO 14001, are followed, and control and verification studies continue through periodic and independent audits. During the reporting period, transition to 2015 version of ISO 14001 has been completed. ISO 14001:2015 focuses on sustainability strategy of companies; and encompasses extremely critical aspects that have not been found in previous version such as leadership, scope of the institution, management of internal and external stakeholders, and management of risks and opportunities.

The expectations and opinions of stakeholders play an important role in managing environmental impacts as well. Expectations and opinions obtained through stakeholder engagement practices organized locally or through grievance and opinion notification mechanisms which all stakeholders have direct access to are replied including the action plans. In the reporting period, a total of 10 grievances Akçansa received in regard to environmental impact was solved during the same reporting period. Akçansa operations are subject to the audits of central governmental organs and local authorities, in addition to internal audits due to their environmental management practices and performance. In this regard, Akçansa has not received any penalty from these audits

in the reporting period. During this period, the investment expenditure for increasing the efficiency of environmental management and improving the performance was 38.4 million TRY, while management expenditure reached in 1.8 million TRY.

Employees receive environmental trainings for a continuous improvement in their environmental awareness. In this context, the employee trainings were 639 person\*hour in 2016 and 1,487 person\*hour in 2017. Contractor employees received 210 person\*hour of training in 2016 and 69 person\*hour of training in 2017. Due to its industrial qualifications, Akçansa has a sophisticated environmental impact management model and focuses on producing performance at various fields. Based on the systematics of sustainability goals, Akçansa environmental impact management subjects gather under the main titles: climate change and biodiversity.

### Combatting Climate Change

In climate change, cement industry comes forward not only for its impacts but also for the opportunities it creates due to its combatting methods. Akçansa manages its works in this area with the risk and opportunity-oriented approach it has developed in line with its guiding policies and business strategies, within the framework of its short and mid-term objectives. Especially

the Kyoto Protocol, International Climate Summit decisions, local and international regulations are the primary resources used in determining the policies and strategies and in deciding performance-creating practices.

Main subjects in which Akçansa aims to create performance in the management of impacts of climate change include increasing energy efficiency, mitigation of greenhouse gases and other emissions, alternative fuel and raw material use, product development, participation and support in local and international initiatives.

One of the key tools in combatting climate change is the calculation of greenhouse gas emissions caused by the operations. In these studies, Akçansa adopts the Energy and Carbon Dioxide Inventory Protocol developed by World Business Council for Sustainable Development Cement Sustainability Initiative (WBCSD - CSI) as basis. As a signatory of the Energy Efficiency in Buildings Declaration published by the Business World and Sustainable Development Association; Akçansa has been offering ceaseless support to Carbon Disclosure Project (CDP)'s Turkey practice which is one of the globally recognized initiatives in climate change since 2011. Akçansa also attends the water programme in addition to CDP's climate change programme.

Akçansa monitors international agenda

regarding the combat against the climate change and supports these efforts through implementation of industrial best practices. Akçansa has attended to the 23rd Conference of Parties to the UN Convention on the Climate Change (COP 23) which took place in Bonn, Germany in November 2017. Akçansa's sector-leading bests practices such as use of alternative fuels and materials, environmental investments, energy efficiency, biodiversity, renewable energy investment, waste heat energy generation, micro-algae pilot project have been presented to local and international attendees during the "Private Sector Best Practices Session" organized by TUSİAD at Pavillion of Turkey in COP 23.

## Energy Consumption Values

	2013	2014	2015	2016	2017
<b>Cement Plants</b>					
Direct Energy Consumption (GJ)	23.201.433	23.355.074	23.997.446	24.539.458	24.663.906
Indirect Energy Consumption (GJ)	2.802.805	2.754.554	2.793.382	2.507.877	2.871.144
Waste Heat Energy Recovery (GJ)	354.713	361.349	345.838	365.928	338.942
Wind Power Electric Generation (GJ)	-	-	-	6.763	24.161
Clinker Specific Heat Consumption (GJ/ton of clinker)	3,51	3,56	3,53	3,56	3,57
<b>Ready-Mixed Concrete</b>					
Indirect Energy Consumption (GJ)	32.120	31.702	30.908	28051	23964
Specific Heat Consumption (MJ/m3 concrete)	6,91	7,13	7,38	7,56	7,20
<b>Aggregate</b>					
Indirect Energy Consumption (GJ)	18.658	49.783	41.871	67.179	53.318

### Energy Efficiency

As the production of clinker consists of energy intensive processes, it is a key element not only of cost but also of greenhouse gas emission stock. Thus, energy efficiency is a fundamental tool used for reducing the impacts of the climate change. This primarily requires energy management through systematic methods. Therefore, all cement plants of Akçansa follow ISO 50001 Energy Management System Standard.

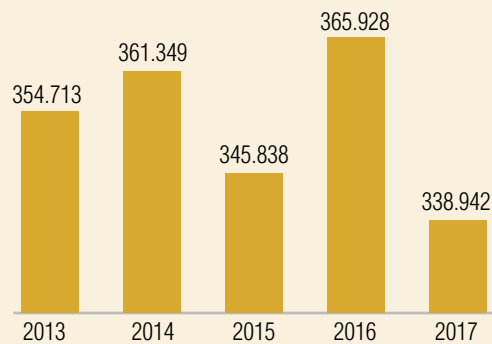
**The energy amount used in producing 1 ton of clinker was 3.56 GJ in 2016, and 3.57 GJ in 2017.**



**Waste Heat Energy Saving**

In 2011, Akçansa initiated Waste Heat Energy Recovery project which pioneers the industry in Çanakkale Factory. Saving amounts increased in years due to improvement studies; 365,928 GJ energy saved in 2016, while 338,942 GJ saved in 2017.

**Waste Heat Energy Recovery (GJ/Year)**



Due to efficiency studies conducted during the reporting period, such as engine controller modifications, flame tube modifications for rotary kilns, installation of central compressor units, LED illumination practices, ECOFOR device applications, furnace exit impermeability practices and waste heat recovery practice energy consumption decreased 483,820 GJ in 2016 and 350,633 GJ in 2017. As a result of energy efficiency achieved 67,185 tons CO<sub>2</sub>e greenhouse gas emission was prevented in 2016, while 51,640 tons CO<sub>2</sub>e was prevented in 2017.

**Energy Efficiency and Renewable Energy Investments**

Thanks to the project executed in Çanakkale Factory, 2.35 MW turbine capacity wind turbine investment with a potential of annually 7,844 MWh power generation at average was conducted in the reporting period. This resulted in annually 28,000 GJ electricity production at average in two years and 4,200 ton of CO<sub>2</sub>e emission was saved annually.

In 2016, the amount of leaked air was decreased through furnace exit impermeability studies conducted in Çanakkale Factory. Thanks to these projects, we saved approximately 36,000 GJ energy and 5,400 tons of CO<sub>2</sub>e. In the reporting period, Replacement of Raw Meal System Fans with Efficient Fans which was conducted in Büyükçekmece Plant received incentive approval from the Ministry of Energy's efficiency increasing project incentives (VAP). This project results in over 1 million Kwh energy saving annually.

**Emission Management**

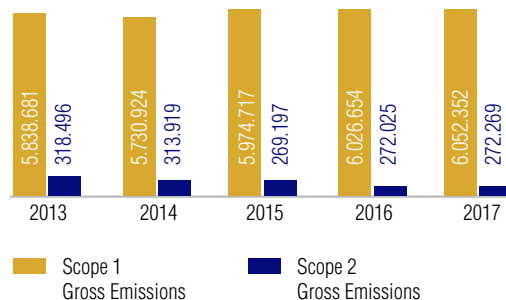
Akçansa calculates and takes mitigative precautions for its Scope 1 and Scope 2 carbon dioxide emissions occurred due to its operations in accordance with the Energy and Carbon Dioxide Inventory Protocol which has become an industry standard, prepared by WBCSD Cement Sustainability Initiative (CSI). Other contaminating emissions are recorded through continuous measurement

devices installed on stacks and reported to be monitored instantly by the Ministry of Environment and Urbanisation and Provincial Environmental Directorate. Indirect emission occurs in aggregate and ready-mixed production processes due to electricity use. But, this amount is very insignificant compared to the emission occurred during cement production.

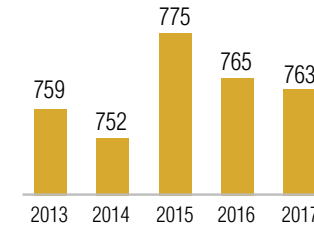
**Carbon Dioxide Emission**

CO<sub>2</sub> emissions occur both due to the energy consumption and the calcination of limestone during the process of cement production. Akçansa adopts the best practices that are the use of alternative fuels instead of fossil fuels and the use of alternative raw materials to replace the clinker in the composition of cement, in addition to energy efficiency in emission mitigation studies.

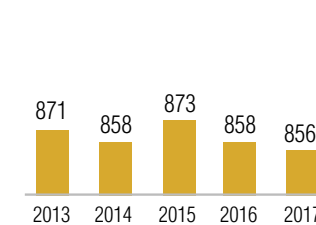
**Gross Carbon Dioxide Emissions (ton)**



**CO<sub>2</sub> Emission from Cement production (kg CO<sub>2</sub>e/ton cement)**



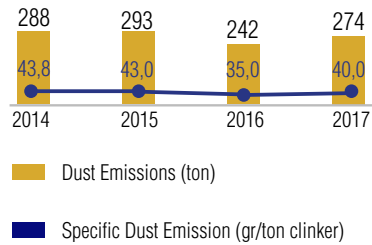
**CO<sub>2</sub> Emission from Clinker Production (kg CO<sub>2</sub>e/ton clinker)**



**Dust Emission**

Akçansa initiated bag filtering and covered clinker conveyors and stokeholes practices in order to reduce dust emissions which are among basic emission types that occur during raw material and production processes in cement industry.

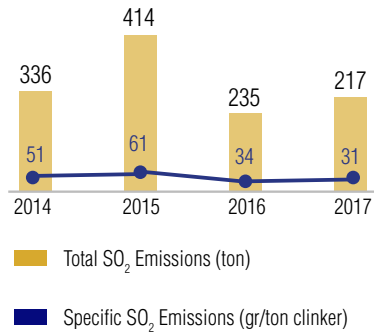
**Dust Emission**



**NOx, SO<sub>2</sub> and Other Pollutants**

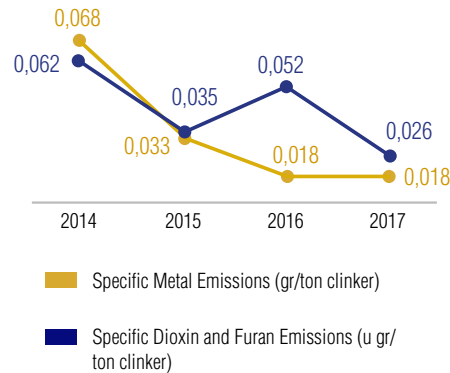
uring the cement production process, pollutants such as nitro oxides (NOx), volatile organic compounds, metals, hydrogen fluoride (HF), hydrogen chloride (HCl), dioxin, and furan are generated. All these emissions are calculated through continuous monitoring devices and reported to authorities as required by the relevant regulations.

**SO<sub>2</sub> Emission**

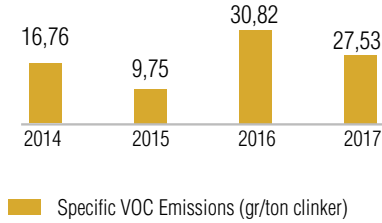


First initiated in Büyükçekmece, Çanakkale ve Ladik Plants during the reporting period, we aim at completing Non-selective Catalytic Reduction System investments until the end of June 2018. This system aims at reducing NOx gases that occur during incineration process. At the facility installed within the plants, we use 25% diluted ammoniac-water solution. Through the sensors working in line with stack gas continuous measurement devices, ammoniac solution is injected at certain points during the process automatically. Thus, ammoniac reacting with stack gases reduces levels of NOx emitted to the atmosphere.

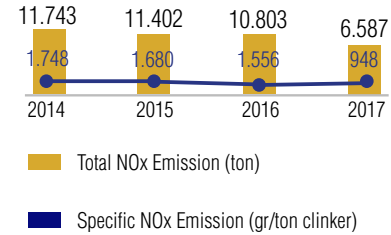
**Other Emissions**



**Specific UOB Emission (gr/ton clinker)**



**NOx Emisyonu**



**Alternative Fuel Use**

Alternative fuel use which is currently among the best practices in combating the climate change in cement industry is mostly about supplying the energy demand from materials carbon dioxide emission levels of which are lower than conventional fuels in general by using the wastes as fuels. It is possible with this practice to create circular economy examples by working together with other industries. Alternative fuel use offers an environmentally friendlier option to city managements for the disposal of wastes which is generally the source of methane emissions.

The most important obstacle for the possibility of using wastes as alternative fuel sources is the challenge of access to ready-to-use wastes. Thus, Akçansa has launched the first and private specially designed waste preparation and feeding system in Akçansa Büyükçekmece Plant working to develop collaborations with several stakeholder groups including local authorities and industrial groups. On the other hand, Akçansa received operating permissions in order to enable the use of wastes as fuels in our plants. Büyükçekmece Plant's access to alternative fuels is higher than other Plant as it is situated in an area populated with the industry. The aim is to increase this practice in other Plant as well through the collaborations done.

**Alternative Raw Material Use**

Main raw material of cement is a clinker carbon-dense intermediate material. It has the largest share in greenhouse gas emission levels of cement and ready-mixed concrete products.

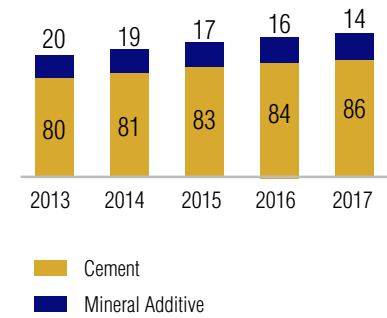
The substitution of clinker with alternative raw materials within the product in today's cement and ready-mixed concrete product technologies not only decreases the environmental impacts of products but also increases the product quality through high durability it offers. The use of alternative raw materials, the main source of which consists of the wastes of other production branches or by-products, creates opportunities

in regards to circular economy as well. Alternative raw material use is among best practices in combating climate change in cement industry. Thus, Akçansa attaches importance to alternative raw material use and increases its performance it manages through Sustainability Goals program.

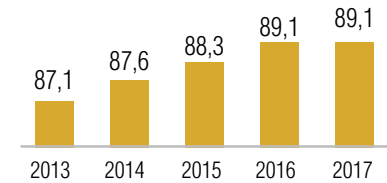
The traditional demand on CEMI-type high clinker products in Turkish market is the greatest market challenge in developing this practice. The greatest tool in combating this is to develop functional and innovative products and to change the perception of consumers via custom products required by large-scale infrastructure projects. In this concept, in addition to R&D studies on cement and ready-mixed products, Akçansa conducts information and awareness studies for its dealers and customers.

Akçansa used 196,000 ton of alternative raw materials in 2016 and 211,000 ton in 2017, improving its performance compared to previous years. According to this, 1.65% alternative raw materials were used in 2016, while 1.8% were used in 2017.

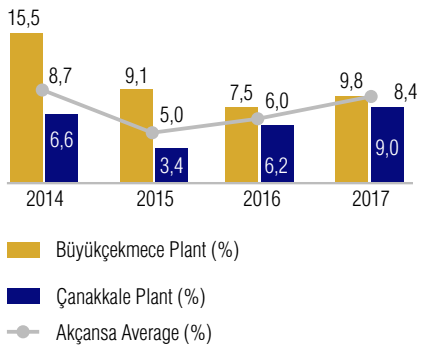
**Cement and Mineral Additive Ratio on 1 m<sup>3</sup> Binder (%)**



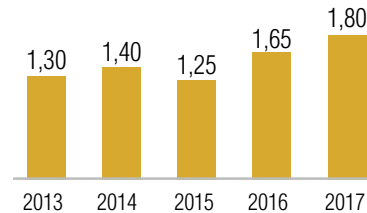
**Clinker / Cement Ratio (%)**



**Alternative Fuel Use Rate**



**Alternative Raw Material Use Rate (%)**





## Biodiversity

Impact on biodiversity may potentially occur due to land use and water consumption during cement production processes, primarily the raw material production. Although both hazardous and non-hazardous wastes are formed during operational processes, these do not reach significant amounts among environmental impacts. Akçansa may cause as they are recycled as alternative fuels.

The principle of avoiding any permanent negative impacts on environment and in fact making positive contributions shapes Akçansa's perspective on biodiversity management which is a part of UN Sustainable Development Goals as well. Performance level achieved in biodiversity which is also a part of corporate performance system is used in evaluating the personal performances of employees.

Legal compliance has critical importance in biodiversity management. Various related subjects, primarily the management of mine sites, have been the subject of laws and legal regulations. The leading regulation is the Mining Law and Implementation Regulation. High level importance is given to legal compliance in regards to mine sites, and all licenses and permits are renewed within the periods specified by laws.

## Biodiversity Project Competition - Quarry Life Award

Quarry Life Awards - Biodiversity Project Competition that aims to enrich the biodiversity levels of mine sites after use and to rehabilitate lands in accordance with local ecological character has also been organized in the reporting period. In 2016, advertisement practices over social media gained importance in order to reach larger masses of society; and we reached hundreds of thousands of users.

23 projects were included in this competition in 2016. As a result of jury evaluation, the first prize was given to the project "Bare Reef Rehabilitation using Mutual Life Systems" prepared by a group of students studying at Molecular Biology and Genetics Department of Istanbul Technical University, the second prize was given to the project "From Stone Pit to the Arms of Nature" prepared by a group of academicians and students studying at Biology Teaching Department of Gazi University, and finally, the third prize was given to the project "Phytoremediation of Ruined Mine" prepared by the academicians of Biology Department of Çanakkale On Sekiz Mart University. The project which won the first prize, aimed at coverage of rock surfaces, where mining activities were completed at schist field in Çatalca, with *Funaria*

*hygrometrica* algae. Project also planned to concurrently release of *Paxillus involutus* fungus which can mutualistically survive together with these algae.

To be organized in 2018 for the third time in the partnership with HeidelbergCement, preparation and project collection processes of this competition were initiated in 2017. 16 project proposals have been collected and quality, content, innovative-edge and scientific background of proposals increase every year. Out of these proposals, a total of six projects made them to the finals; three of them in social benefit category, three in scientific research category. Local and international winners will be announced according to the results obtained following the execution of finalist projects in mine sites in 2018.

In 2017, Biodiversity Project Competition which is the first one in Turkish mining industry was selected as "one of the 5 inspiring stories of sustainability" by TUSIAD.



### Environmental Management and Rehabilitation at Raw Material Sites

Environmental impacts emerge at raw material sites are managed with a risk - opportunity oriented approach applied to corporate operations in general according to environmental policy with a target of full compliance to legal regulations.

Environmental impact management in raw material processes begins at site assessment process. License and permission operations begin when raw material site is assessed. Before starting work at mine sites, we conduct an Environmental Impact Evaluation study to evaluate environmental and social risks. As required by the relevant law, biodiversity impacts are also addressed. Akçansa prepares a rehabilitation plan which will take effect with the approval of public authorities; this plan involves the usage of the site with minimal environmental impact during operations, subsequent rehabilitation and reclamation criteria, and a time plan.

Mine sites, economic life of which has expired are rehabilitated according to provisions stated in rehabilitation plans and to its original natural tissue. This is also obligatory in Akçansa Sustainability Goals, in addition to legal provisions.

As of the end of 2017, a total of 18.56 ha area is rehabilitated and approximately 8,000 trees and saplings were planted in the rehabilitation studies conducted in Akçansa mine sites. Site practice of the project that ranked 2nd

in the biodiversity project competition organized in Istanbul Büyükçekmece - Muratbey Limestone Site is conducted in almost 0.5 ha area. Among 100 saplings planted, there are Leyland Cypress, Castanea Sativa, Lavender and Wild Strawberry with high level of adaptation and durability; and germination occurred. In the same site, Akçansa conducted insemination studies using hydroseeding technique in an area of 5.000 m2 with completed mining activities. Rehabilitation studies in the regions where the production completed in Ladik Limestone Site continue; and in 2017, 500 pine saplings planted in an area of 0.5 ha to celebrate World Environment Day, on 5th of June. Rocky surfaces where mining activities completed in a schist site in Çatalca are covered with a moss called Funaria hygrometrica via a completely natural method. We plan to release the moss called Paxillus involutus which lives mutually with this type of moss together with other mosses. The aim is to establish an ecosystem in which the moss type is responsible for adherent surface and nutrient production, whereas the fungi type is responsible for producing enzymes and chemical materials that speed up soil formation. This mutual system will speed up the formation of soil by slowly breaking down the rock structure and will give the bare rocks a green scene resembling to a garden.

### Water Resources and Wastewater Management

Akçansa supplies water required for cooling, dedusting, flushing, watering and domestic

use in its operations through underground water and municipal water. Akçansa aims at efficiency and reclamation in the use of water resources. Thus, it establishes closed loop systems to obtain the highest amount of recovery. Water used in dedusting and flushing is also reclaimed and reused in aggregate production.

The total amount of water consumption in Akçansa cement plants in two years that encompass the reporting period was 3.7 million m3. The wastewater that cannot be reclaimed after consumption is processed at wastewater treatment facilities and discharged to natural receiving environments in accordance with the quality parameters and limit values specified in discharge licenses. The discharged wastewater does not have a pollution load that might negatively impact the biodiversity qualities of the receiving environments.

Within the context of the Water Management Project conducted by HeidelbergCement on a global scale, the water performance of Akçansa is also evaluated according to the Water Reporting Protocol published by WBCSD Cement Sustainability Initiative (CSI), it is also being reported to CSI. Akçansa participates in Carbon Disclosure Project CDP's Water Program thanks to its policies, strategies and practices in water management.



### Water Withdrawal by Source at Cement Plants (m³)

	2014	2015	2016	2017
<b>Underground Water</b>	1.677.491	1.448.455	1.647.783	1.687.210
<b>Municipal Water</b>	240.964	209.456	204.058	188.040
<b>Total</b>	1.918.455	1.657.911	1.851.841	1.875.250



# EXCELLENCE IN OCCUPATIONAL HEALTH AND SAFETY

Reaching excellence in occupational health and safety is a common priority for all the links in the value chain of Akçansa. Akçansa carries out technological and physical investments required to cultivate health and safety culture, create safe working environments and excel in this OHS management, promoting behavior-oriented transformation.





### Excellence In Occupational Health And Safety

Occupational Health and Safety Directorate is responsible for the management of OHS issues and the performance results achieved are reported to the senior management. Besides managers taking office at Headquarters, experts working at production facilities also take part in the management of OHS policies. The performance regarding the issue is being evaluated within the scope of Akçansa Performance Evaluation System and it has a weight of 25% in individual performance targets of employees. OHS processes are managed in accordance with Quality, Environment and Energy Policies within the framework of Integrated Management System. The OHS Policy complies with the requirements of the OHS Law no. 6331, OHSAS 18001 Standard and ILO Conventions.

Akçansa has Occupational Health and Safety Committees established in line with legal regulations. OHS committees, where Akçansa employees takes part, contribute to the widespread development of OHS culture throughout the company. By the end of 2017, there were a total of 56 members in the 4 different OHS committees in Akçansa, of which 7 were employee representatives.

Adopting a precautionary approach to occupational health and safety, Akçansa conducts training activities, behavior-oriented audits and field audits in order to increase awareness of occupational health and safety among employees and thus to ensure minimization of risks. Employees and suppliers, alongside customers are reached to raise awareness in the entire value chain through occupational health and safety awareness programs. Within this scope, employees were provided with 50,260 person\*hour of OHS training in 2016 and 51,799 person\*hour in 2017. On the other hand, in 2016, 2,442 behavior oriented audits, 1,266 field audits were conducted and 3,227 behavior oriented audits and 2,335 field audits in 2017.

**Meeting the requirements of international best practices, standards and new Occupational Safety law in the field of OHS, Akçansa received the first prize with the Samsun Ready-Mixed Concrete Plant in Safe Work Healthy Life Awards organized by HeidelbergCement in 2016.**



### Akçansa OHS Academy

Akçansa OHS Academy is a training center where Akçansa Golden Rules which encompass best practices in the area of Occupational Health and Safety around the world, national and international standards as well as the requirements of the new Occupational Safety Law, are theoretically and practically explained. Akçansa OHS Academy aims to create a community that is aware of risks not only at workplaces but also in every sphere of life, and exhibits safe and at the same time sensitive behaviors towards nature. During the reporting period, health and safety trainings continued to be provided for employees in all the working fields under the roof of OHS Academy. It aims to provide 80,000 person\*hour training annually for 5,000 employees across Akçansa by OHS experts, technical staff and medical personnel.



### Occupational Safety

Akçansa fulfills its responsibility that its employees work in a safe environment at the highest level by taking all the necessary precautions. Akçansa provides its employees with a working environment where they feel safe and valued. The emphasis placed on the issue of OHS is reflected by its inclusion in the collective agreements signed with the unions. For example, safety regulations, disease and accident reports, accidents and occupational diseases and occupational safety rules are included in the collective bargaining agreements.

During the reporting period, the most frequently encountered types of accident were equipment accidents and falls from high and preventive measures were taken. In 2017, "I Am Safe At Height Project", which was about working at height, one of Ten Golden Rules of Akçansa in occupational health and safety, was carried out.

Akçansa continues its preventive efforts in cooperation with its stakeholders in order to improve its OHS performance. One of the procedures developed in light of these studies is that stakeholders have the authority to stop working that they feel unsafe. This procedure aims to develop OHS culture and increase participation in practices. Within

the context of the Work Permission System, safe work in site activities of Akçansa and subcontractor employees are monitored by the Site Supervisors.

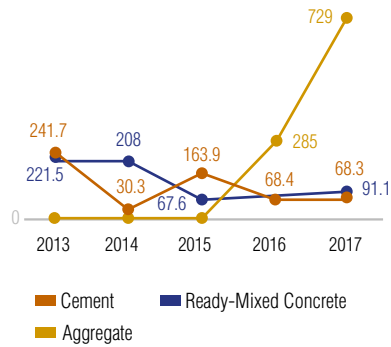
In order to prevent possible accidents caused by energy in the working sites, "Tag, Lock, Secure and Test" system is applied. In addition, periodic exercises are carried out in order to facilitate the implementation of the procedures to be conducted in a possible emergency incident. These exercises and safety warnings help the OHS practices to be conducted in daily workflow.

With the belief that employee awareness and taking responsibility will impact OHS performance, it is aimed at ensuring active individual participation in OHS activities. Besides OHS principles and practices, subjects such as driving vehicles, personal protective equipment, rules of conduct for emergencies and first aid are also included within the scope of trainings provided to employees. In addition, within the scope of R5 practice, employees are encouraged to perform their work with high awareness according to the principle of "think, plan, take safety precautions, check and work". In this way, it is aimed for employees to determine hazards related to the work before each operation and to take necessary measures to minimize the risks. Employees

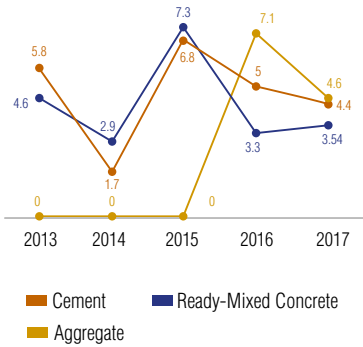
are also encouraged to report misses, dangerous situations and behaviors. As part of Occupational Safety Management System, each senior executive supports visible leadership by implementing 6 behavior-oriented audit practices per year and raises employee awareness about safety behavior and culture. With all these applications, it is aimed that employees should take responsibility without being indifferent to an inappropriate situation and behavior and adopt a role modeling approach.



**Accident Severity Rate**



**Lost Time Accident Frequency Rate**



During the reporting period, in our cement and ready-mixed concrete business segments we experienced a parallel trend compared to the previous period for the accident severity rate, and a significant performance improvement in the lost time accident frequency rate. In the aggregate business segment, a single incident in a subcontractor business process, which was never been experienced before, caused an enormous increase in number due to a much smaller number of working hours compared to other segments. Measures have been taken to prevent the accident from happening again.

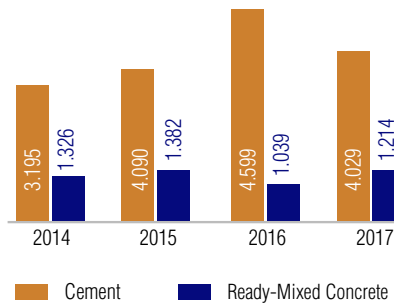
**Employee Health**

In order to ensure that employees are protected from occupational diseases and illness in general, health risks are determined by performing analyses at all sites where raw material production, raw material transportation and production and similar operations are carried out. Follow-up health checks are conducted periodically in relation to the identified risks.

Akçansa employees are offered training in health issues throughout their work lives. The trainings are designed considering the quality of the cement, ready-mixed concrete and aggregate sector and include topics such as ergonomics, musculoskeletal disorders, hearing losses, lung diseases, fighting ticks. During the reporting period, there were no occupational disease cases in company operations.



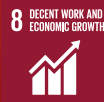
**Absentee Rate**





# WORK LIFE

Acting with a vision of being “The Most Preferred Employer” of the industry, Akçansa values its employees as they lay the foundation of its activities and believes that the key role in achieving success is the value attached to human resources. The mission of Akçansa is to constitute a climate where a visionary leadership understanding is in place, which is corporate and personal development oriented, distinguished from its competitors through effective management systems and its managers, offering a “meaningful work” and “happy working environment” to all its employees.



## Work Life

At Akçansa, Human Resources processes are carried out under the guidance of agreements and decisions such as ILO Conventions, UN Universal Human Rights Declaration, in addition to the provisions of the Labour Law. Akçansa also adopts the principles determined by the UN Global Compact, of which it became a signatory, in relation to working life.

Akçansa considers the environment created by the national and global economy in addition to company's business targets and sector-based conditions in which it operates while defining its Human Resources strategies and primary targets. Human Resources Deputy General Management, reporting to the Executive Board, is responsible for monitoring performance indicators and the dissemination of work life objectives to employees beginning from the senior management. Human Resources also assumes an active role in the Sustainability Committee, ensuring the integration of sustainability in human resources processes.

Our Human Resources Strategic Focus is

- To support the reinforcement of a positive organizational climate,
- To accelerate leadership development,
- To enhance the learning and development experience of employees,
- To promote the engagement of employees in management and its improvement,
- To guide the acquisition and retention of talents by the company,
- To ensure the engagement and satisfaction of stakeholders,

by designing efficient, lean, extendable processes and practices, and leading change.



## Investors in People

Based on its "Human Focus and Respect" vision, Akçansa measures and continually develops all of its processes that touch on human via different tools. Thus, in 2016, Akçansa has been awarded with the Golden Standard, the highest level of "IIP - Investors in People" which is the first and only international Human Resources Development and Management Standard.

By Category	2016	2017
Covered by Collective Bargaining Agreement	584	501
Not Covered by Collective Bargaining Agreement	555	554

By Educational Level	2016	2017
Primary School	141	114
High School	539	520
University	459	421

By Gender	2016	2017
Female	91	80
Male	1.139	1.055

### Fair Work Environment

Akçansa considers offering a fair and engaging work environment based on mutual trust and respect to its employees as one of its basic principles. According to its Business Ethics Principles, Akçansa adopts the principle of creating a work environment that supports equality and diversity where human rights of employees are taken into granted. Akçansa participates in the "Equality at Work" platform, established under the aegis of the World Economic Forum and Ministry of Family and Social Policies. Having signed the Equality at Work Declaration in 2013, Akçansa commits to voluntarily adopt the principles to demolish gender-based discrimination in work life, to establish reliable systems to generalize these principles and to report in a transparent manner. Furthermore, Akçansa became a signatory party to Women's Empowerment Principles – (WEPs), one of the major global private sector initiatives aiming women empowerment for enabling them to participate in economic life, in all sectors and every level.

Akçansa adopts justice and equity principles in all HR processes. The characteristics of

Akçansa employees such as their religion, language, race, sect, gender, physical attributes and life choices are not questioned under any conditions and any practice that might be perceived as discrimination is prohibited. Forced, compulsory labour and child labour are not tolerated in Akçansa operations and its subcontractors.

In order to ensure that sustainability impacts, primarily the principle of respect for human rights, are kept under control across the supply chain, the working principles that product and service suppliers are required to follow have been determined. Compliance with the norms determined in Akçansa Supplier Business Ethics Principles is the responsibility of all suppliers and also a part of subcontractor service contracts. Child labour, forced and compulsory labour are prevented in supply operations by means of Business Ethics Principles, issues such as respecting the union rights of employees, complying with occupational health and safety principles, acting in compliance with norms, ILO Conventions and legal regulations regarding operations, preventing discrimination, bribery and corruption are ensured. Purchasing agreements include

regulatory provisions about environmental standards, workforce and human rights standards and it is annually observed whether they provide product and services in compliance with these criteria through periodical controls.

Akçansa regards its employees right to organization as a basic right; and its employees are free to take place in union organizations and exercise their rights. In accordance with this constructive approach, all Akçansa employees covered by the Collective Labour Agreement are union members. The Group Collective Labour Agreements signed between the Cement, Ceramic, Soil and Glass Industry Workers' Union of Turkey (Çimse-İş) and the Cement Industry Employers' Association (ÇEİS) for the period from 01.01.2016 to 31.12.2017 continues to be in force.



### You at Work Equality Network at Akçansa

In 2017, Akçansa has formed "You at Work Equality Network" to support both personal and professional development of female employees with an aim to create awareness in equality both inside and outside the company. In this concept, personal targets of managerial-level employees include objectives related to equality at work.



### Employee Development

Akçansa offers the required opportunities for the corporate culture it aims at, the realization of business targets, corporate strategy and bringing out the potentials of employees under the motto of "My Development is My Primary Responsibility" to help employees develop on their own responsibility. In addition to the support given to trainings and professional development of employees through personal development plans, Akçansa establishes new areas of interaction and conducts applications to increase motivation among employees.

Annual organization of Leadership Meetings, Leadership Style Surveys, Organizational Climate Survey, Leadership Development Programmes aim at continuous development of managers in their journey to leadership. "Akçansa Crusing Academy" put into practice in 2016 aims to expand the leadership development to managers at different levels of the organization.

Akçansa conducts continuous development plans differentiated according to the requirements. Practices such as "Career Oak", "A New Leader Program", development and evaluation centre and 360-degree

support the development of employees. Employees can also benefit from trainings held by HeidelbergCement, Sabancı Holding, and Sabancı University, besides trainings organized within the company. Akçansa encourages and supports the academic trainings and foreign language studies of its employees in order for them to acquire the skills required by their current positions.

Employee Trainings (person x hour)	2013	2014	2015	2016	2017
Covered by Collective Bargaining Agreement	19.072	20.608	27.391	31.299	30.526
Not Covered by Collective Bargaining Agreement	10.370	13.492	14.100	11.576	13.082
Female	1.700	2.546	2.367	3.001	2.617
Male	27.743	31.553	39.123	39.874	40.991

### Training and Development Activities at Akçansa

#### GENERAL COMPANY TRAININGS

Activities and trainings to be planned in accordance with competences designated as prioritized development areas of company (Company specific group trainings, OHS trainings)

#### FUNCTIONAL TRAININGS

Job-specific activities and trainings aimed at developing the knowledge and skills of employees in their areas of expertise (Technical and expert trainings, congresses and conferences)

#### PERSONAL DEVELOPMENT TRAININGS

Activities and trainings planned in line with individual development areas (Individual trainings, Coaching practices)



### The First Accredited Mentoring Program in Cement Industry: Career Oak

In 2017, Akçansa Internal Mentoring Program Career Oak has been accredited on its 3rd year according to international standards by European Mentoring and Coaching Council (EMCC). Akçansa is the first company to receive EMCC accreditation in cement industry, and has become an exemplary to all institutions and organizations. Akçansa is appreciated globally for breaking grounds in mentoring which is one of the most effective development tools focusing on establishing company culture.

### Work - Life Balance

Practices that help Akçansa employees establish a work - life balance are executed under Akçansa Happiness Workshop. Akçansa increases the motivation of its employees through social, cultural and sportive events and Family Workshops organized based on the demands and expectations of the employees.

In addition to high number of clubs operating under Akçansa World of Clubs, "A Sparkle Club" which strengthens employee volunteering and social awareness continues to add value to the society thanks to the initiative of Akçansa employees.

"Mom, Bring Me Milk" project launched for supporting the work-life balance of working mothers with infant and "Ladik Glass Workshop" practices where the spouses of Ladik plant employees and housewives in Ladik are trained in glass production, transforming their labour into value, were also continued in the reporting period.

In 2016, an employee support program "Don't Worry, Make a Call" which offers 7 days 24 hours access for all employees and their families has been initiated to support work - life balance.

### Employee Engagement

Akçansa organizes motivational and conversational meetings where employees get together with the senior management, and information, ideas and suggestions are shared. Akçansa promotes mutual sharing and employee engagement through practices such as "Communication Meetings", "We Listen to You." The satisfaction and engagement levels of employees are measured and areas of development are identified through Work Life Evaluation Survey. Akçansa learns about the innovative ideas of employees via Suggestion System and makes organizational improvements based on these ideas.

"Employee Ambassadors Council", where employees participate voluntarily, constitutes a bridge for the dissemination of plans and practices regarding employees within the organization, and works to facilitate reciprocal communication and to create strong, reliable and open channel in this regard.

Through the cloud technology application "Mozalk", used to enhance the effectiveness, efficiency, and integration with other HR practices of performance, development and learning processes participated by employees not covered by the CLA, the different expectations of employees are met with a user-friendly structure, access is provided to modules everywhere independently from

offices. In addition, Akçansa continues to improve HR Portal application which includes work relations processes, talent management and succession modules.



### Chunks and Chunks of Project Competition

In 2016, another appreciation and recognition practice has been added. "Chunks and Chunks of Project Competition" which aims to enable Akçansa employees present their innovative ideas and to offer a climate which enriches their experiences has been organized. Employees exhibited their creativity via 23 projects at different categories.

### Fringe Benefits of Employees

Akçansa offers its employees with various vested benefits such as personal pension plans, private health insurance, and life insurance, and provides personal accident insurance for all its employees. Fringe benefits of employees have become more flexible via Bflex application to offer maximum benefit depending on the requirements of employees. Besides, Akçansa also offers the opportunity of personal retirement insurance for its employees not covered by the Collective Labour Agreement in accordance with their levels of responsibility. Akçansa contributes to the retirement account, to which employees contribute by 3% of their gross base wages, at the same rate. 63.3% of employees not covered by the Collective Labour Agreement benefit from the personal retirement fund.

# CORPORATE CITIZENSHIP

Akçansa embraces a social and environmental corporate culture that is loyal to legal and ethical principles. In this regard, Akçansa conducts studies that enhance the quality of life of the society in which it exists and contribute to the creation of a more secure and prosperous future. Based on its corporate citizenship approach, Akçansa establishes platforms to routinely monitor the ideas and suggestions of its stakeholders that substantially contribute to its success.





**Akçansa undertakes projects aimed at creating social value in areas such as health, culture, arts, education, sports and environment. In 2016, 7.7 million TL worth of resources were allocated to social projects that employees voluntarily participated in, and in 2017, this amount rose to 10.5 million TL.**

### Akçansa My Neighbourhood Project

In 2015, Akçansa implemented "My Neighborhood Social Responsibility Project" with the cooperation of Büyükçekmece District National Education Directorate and Tüvana Foundation for the Education of Children Eager to Read (TOCEV) in order to help create the concepts of happy child, happy family and happy neighbourhood and to lay concrete foundations for future by offering the required trainings to future generations and their parents. Within this project, both parents and children receive trainings in a custom-design mobile training centre in closed groups. This project teaches children how to communicate better at school, at home and with each other, and supports parents by giving information for the required subjects that they find challenging when raising children in need of an expert consultation. Since the beginning of this project, Akçansa provided approximately 15,000 hours of training. In addition to these programs, Akçansa organizes first-aid awareness seminars for teachers as well. 2,500 teachers received first-aid training in this project; and the target by the end of 2017-2018 academic year is to raise this number to 35,000.

### Concrete Ideas Project Competition

In the reporting period, Akçansa has organized the 7<sup>th</sup> and 8<sup>th</sup> of Concrete Ideas Project Competition in order to introduce university students to the industry and to give them the opportunity to exhibit their creativity. In 2016, 880 students from 104 different universities applied to this competition; whereas, in 2017, the record was broken with 1,340 applications from 117 different universities. This project emphasizes the importance of cement and concrete for a sustainable future and supports the education of the youth, the architects of future.

### Biodiversity Project Competition

Biodiversity Project Competition which is organized biennially with an aim to help college students create projects to enhance biological value of mine sites and to increase the awareness of college students was held in 2016 with the cooperation of Akçansa and Heidelberg. First prize of this competition in which almost 30 projects from all around Turkey competed is extended to Istanbul Technical University, the second prize is extended to Gazi University, and the third prize is extended to the students and academicians of Çanakkale 18 Mart University.



### CORPORATE MEMBERSHIPS

Türkiye Sanayici ve İş Adamları Derneği (TÜSİAD)	İnşaat Malzemeleri Sanayicileri Derneği (İMSAD)
Türkiye Çimento Müstahsilleri Birliği (TÇMB)	Çevre Koruma Vakfı (ÇEVKO)
Türkiye Hazır Beton Birliği (THBB)	Özel Sektör Gönüllüleri Derneği (ÖSGD)
Çevre Dostu Yeşil Binalar Derneği (ÇEDBİK)	Tüvana Okuma İstekli Çocuklar Vakfı (TOÇEV)
TURMEPA	Sürdürülebilir Kalkınma Derneği (SKD)
Türkiye Kurumsal Yönetim Derneği (TKYD)	Çimento Endüstrisi İşveren Sendikası (ÇEİS)
Agrega Üreticileri Birliği (AGÜB)	Türkiye İşveren Sendikaları Konfederasyonu (TİSK)
Türkiye Madenciler Derneği (TMD)	Investors in People (IIP)
Women's Empowerment Principles (WEP)	Çanakkale Sanayici İş Adamları Derneği
Türkiye Çimse-İş Sendikası	Türkiye Yatırımcı İlişkileri Derneği
BM Kalkınma Programı	Türkiye Liman İşletmecileri Derneği

### The World of Volunteers

Taking responsible action against employees, customers, investors, society, environment, legal regulations and ethical principles for a sustainable success is among Akçansa's fundamental values. In this regard, Akçansa World of Volunteers continues to work ceaselessly to add value to the society.

In regards to "Children Transforming the Future" which is one of the volunteer-based projects of Akçansa that aims to protect the environment and the world and to leave a liveable world to future generations, Akçansa volunteers conduct studies to help children perceive their position in the society and to teach them how to take personal responsibility for a sustainable future. Thus, fourth-grade primary school students learn to separate wastes at its source and the methods of using resources consciously in order to contribute to a sustainable world to obtain energy from recycling and wastes. Akçansa puts recycling boxes in schools to help students learn to practice their theoretical information.

In 2016, Akçansa was included to Vocational High School Coaches Program in order to broaden the visions of vocational high school students and to help them become successful in future. Akçansa volunteers who complete their education according to this program will

coach vocational high school students for two years.

Akçansa Volunteers support Volunteer Reader Project that is conducted by The Assistive Technology and Education Laboratory for Individuals with Visual Disabilities (in short GETEM), and they established a library to read books for the individuals with visual disabilities.

As of 2017-2018 academic year, 6 Akçansa Volunteers who completed the trainings in Learning Child: Responsible Individual Program which aims to help children, the leaders of today and tomorrow gain awareness in responsible thinking, self-expression, communication, empathy and equality support the project in two schools where this application has begun.

### Stakeholder Engagement Studies

Akçansa considers stakeholder dialogue and participatory communication models as a dispensable part of its sustainability strategy. Thus, Akçansa organizes events which offer direct contact with stakeholders. These events transfer information to stakeholders and take feedback from them. Main channels for stakeholder engagement include Neighbor Councils, Dealer Councils, Open-Door Days, analyst meetings, investment meetings, Concrete Ideas,

university lecture participation, work groups, Sabancı Communication Group, IMSAD Communication Committee, Sustainability Committees, TÇMB Professional Committees, My Neighborhood trainings, communication meetings, board meetings, and meetings with NGOs.

### Open Door Days

Based on stakeholder engagement studies, Akçansa organizes "Open Door Days" events in Büyükçekmece Plant. Akçansa shares the recent studies and information on cement production process with its stakeholders in these events. District governors and administrator chiefs working in the district, Büyükçekmece Municipality managers, shareholders in addition to students and lecturers in My Neighborhood project attend to Open Door Days.

### Neighbor Councils

Stakeholders are informed about Akçansa's current and planned studies, mutual opinions and suggestions are obtained based on this information, all developments in the company are shared with stakeholders in a transparent manner and investments on energy and environment are explained in these Neighbor Councils organized in Akçansa Büyükçekmece Plant. Akçansa comes together with business

partners, suppliers, dealers and customers, local communities and other stakeholder groups; and aims to produce creative solutions with its stakeholders who contribute substantially to the foundation of its success, to benefit from its powerful aspects and to discover the areas of improvement together.



# PERFORMANCE DATA

Operational Performance	2013	2014	2015	2016	2017
<b>Number of Plants</b>					
Cement Factories	3	3	3	3	3
Aggregate Facilities	4	4	4	4	4
RMC Facilities	41	38	36	36	30
<b>Production Capacity (million ton)</b>					
Cement	9	9	9,3	9	9
Clinker	6,5	7	7	7	7
<b>Capacity Utilization Rate (%)</b>					
Cement	76	76	76	81	81
Clinker	95	95	97	98	99
<b>Sales (million ton)</b>					
<b>Cement</b>	6,8	6,8	6,9	7,5	7,6
Domestic	5,9	6,2	6,2	6,4	6,6
International	0,9	0,6	0,7	1,1	1,0
<b>Clinker</b>	0,9	0,7	0,7	0,4	0,4
Domestic	0,0	0,1	0,0	0,0	0,1
International	0,9	0,6	0,6	0,4	0,3
<b>Ready Mixed Concrete (million m3)</b>	4,8	4,7	4,4	3,9	3,4
<b>Aggregate</b>	3,0	2,5	2,5	2,8	2,5

Financial Performance	2013	2014	2015	2016	2017
<b>Tesis Sayıları</b>					
Net Sales (TL million)	1.202,20	1.410,90	1.468,50	1.461,10	1.519,00
EBITDA (TL million)	270,2	389,8	429,8	407,9	308,5
EBITDA (%)	22,5	27,6	29,3	27,9	20,3
Net Profit (TL million)	157,9	248,8	281,1	286,4	148,7
Earnings per Share	0,82	1,3	1,5	1,5	0,8
Dividend per Share	75,43	118,2	134,6	123,9	66,9
Net Financial Dept (TL million)	163,5	85	91,1	185,1	332,7
Equity Capital (TL million)	987,6	1.143,00	1.187,20	1.215,00	1.096,90
Total Assets (TL million)	1.477,20	1.602,50	1.705,10	1.843,20	1.916,20
Procurement Operations (TL million)	1.000	1.010	1.100	1.200	1.200
Local Procurement Rate (%)	88	84	86	77	73



Environmental Performance	2013	2014	2015	2016	2017
Alternative Raw Material Consumption (ton)	203.413,81	203.930,00	189.997,00	196.264,45	210.591,95
Alternative Raw Materials Utilization Rate (%)	1,32	1,41	1,25	1,65	1,80
Clinker Rate (%)	87,1%	87,6%	88,3%	89,1%	89,1%
Mineral Additive Ratio in 1m³ Binder (%)	20	19	17	16,4	14,3
Conventional Fuel Amount (ton)	671.123,41	663.672,24	699.589,90	700.078,68	708.909,64
Alternative Fuel Amount (ton)	101.322,15	130.474,86	91.062,20	90.018,33	120.509,76
Total Energy Consumption (GJ)	26.081.764	26.222.803	26.790.828	27.047.335	27.535.050
Direct Energy Consumption (GJ)	23.201.433	23.355.074	23.997.446	24.539.458	24.663.906
Indirect Energy Consumption - Electricity (GJ)	2.880.331	2.867.729	2.793.382	2.507.877	2.871.144
Specific Energy Consumption in Clinker Production (GJ/ton clinker)	3,51	3,56	3,53	3,56	3,57
Thermal Energy Substitution Rate by Using Alternative Fuels (%)	6,66	8,68	5,00	6,00	8,41
Total water withdrawal (million m3)	1,77	1,93	1,65	1,85	1,88
Underground Water	1,60	1,67	1,45	1,65	1,68
Municipal Water	0,18	0,25	0,20	0,20	0,19
Other	-	-	-	-	0,01
CO <sub>2</sub> Emission in Cement Production (million ton)	6,16	6,04	6,24	6,30	6,32
Direct (Scope1) CO <sub>2</sub> Emissions (million ton)	5,84	5,73	5,97	6,03	6,05
Indirect (Scope2) CO <sub>2</sub> Emissions (million ton)	0,32	0,31	0,27	0,27	0,27
Specific Gross CO <sub>2</sub> Emission in Clinker Production (kg CO <sub>2</sub> /ton clinker)	883	873	880	868	871
Specific Net CO <sub>2</sub> Emission in Clinker Production (kg CO <sub>2</sub> /ton clinker)	871	858	873	858	856

	2013	2014	2015	2016	2017
Specific Gross CO <sub>2</sub> Emission in Cement Production (kg CO <sub>2</sub> /ton cement)	769	766	781	774	776
Specific Net CO <sub>2</sub> Emission in Cement Production (kg CO <sub>2</sub> /ton cement)	759	752	775	765	763
Energy Saving by Waste Heat Recovery Practices in Cement Production (GJ)	354.713	361.349	345.838	365.928	338.942
Emission Saving by Waste Heat Recovery Practices in Cement Production (Ton CO <sub>2</sub> )	7.341	11.473,10	11.401,60	10.802,68	6.586,71
NOx Emissions (ton)	1.184	1.747,76	1.679,68	1.555,78	947,51
Specific NOx Emissions (g/ton clinker)	324	335,84	413,92	234,98	217,39
SO <sub>2</sub> Emissions (ton)	49	51,16	60,98	33,84	31,27
Specific SO <sub>2</sub> Emissions (g/ton clinker)	0,01	0,06	0,04	0,05	0,03
Specific Metal Emissions (g/ton clinker)	26	16,76	9,75	30,82	27,53
Specific VOC Emissions (g/ton clinker)	0,02	0,07	0,03	0,02	0,02
Specific Dioxin and Furan Emissions (µg ton clinker)	140	287,78	293	242	274
Dust Emission (ton)	36	43,84	43,00	35,00	40,00
Specific Dust Emissions (g/ton clinker)	23.150.101	22.590.623	16.019.386	30.307.000	8.111.904
Environmental Management Expenditure (TL)	-	989.486	916.171	432.834	1.341.361

<b>Employee Demographics</b>	2015	2016	2017
<b>Direct Employment</b>	1.129	1.139	1.055
Female	83	91	80
Male	1.046	1.048	975
<b>Contractor Employees</b>	1.537	1.490	1.473
Female	41	35	43
Male	1.496	1.455	1.430
<b>Employees by Contract Type</b>	1129	1139	1055
<b>Indefinite Term Contract</b>	1.124	1.138	1.055
Female	81	91	80
Male	1.043	1.047	975
<b>Temporary Contract</b>	5	1	0
Female	2	0	0
Male	3	1	0
<b>Employees by Education Level</b>	1124	1139	1055
Primary School	145	141	114
Secondary School	537	539	520
University and Above	442	459	421
<b>Senior Executives (number)</b>			
<b>by Gender</b>	7	5	7
Female	0	0	0
Male	7	5	7
<b>Mid-level Executives (number)</b>			
<b>by Gender</b>	39	45	45
Female	4	5	6
Male	35	40	39

	2015	2016	2017
<b>New Hires (number)</b>			
<b>by Gender</b>	77	105	45
Female	14	13	7
Male	63	92	38
<b>Employees Left (number)</b>			
<b>by Gender</b>	110	96	127
Female	7	6	16
Male	103	90	111
<b>"Employees Covered by Collective Agreements (number)"</b>	575	584	554
<b>Employees Left for Parental Leave</b>			
Female	2	3	6
Male	0	0	0
<b>Employees Returned From Parental Leave</b>			
Female	3	3	5
Male	0	0	0
<b>Employees Working For the Last 12 Months After Returning From Parental Leave</b>			
Female	3	3	5
Male	0	0	0

<b>Social Performance</b>	2015	2016	2017
<b>Employee Trainings (person x hours)</b>	41.491	42.876	43.608
Female	27.391	28.298	28.781
Male	14.100	14.578	14.827
<b>Accident Frequency Rate</b>			
Cement Factories	7,3	3,3	3,54
Aggregate Production Facilities	0	7,1	4,64
RMC Production Facilities	6,8	5,01	4,43
<b>Accident Severity Rate</b>			
Cement Factories	67,6	68,6	91,12
Aggregate Production Facilities	0	285	729
RMC Production Facilities	163,9	68,38	68,26
<b>Occupational Disease Rate</b>			
Cement Factories	0	0	0
Aggregate Production Facilities	0	0	0
RMC Production Facilities	0	0	0
<b>Total Attendance to OHS Trainings (persons)</b>	2.666	2.629	2.528
Employees Covered by Collective Agreements	1.129	1139	1055
Employees Not Covered by Collective Agreements	1.537	1490	1473
<b>Total Hours of OHS Trainings (person x hours)</b>	32.990	92.358	71.674
Employees Covered by Collective Agreements	21.901	57.614	41.355
Employees Not Covered by Collective Agreements	11.089	34.744	30.319

	2015	2016	2017
<b>Total Attendance to Environmental Trainings (persons)</b>			
Direct Employees	521	639	716
Contractor Employees	60	210	69
<b>Total Hours of Environmental Trainings (person x hours)</b>			
Direct Employees	909	639	1487
Contractor Employees	60	210	69
<b>Investment Contracts and Agreements with Human Rights Clauses (%)</b>	40%	100%	100%
<b>Training and Communication Studies on Corruption Risks</b>			
Number of Participants	13	30	45
Training Hours (personx x hours)	104	286	89
<b>Number of Corruption Cases</b>	1	0	0
<b>Legal Cases of Corruption Against Company or Employees</b>	1	0	0
<b>Financial Fines Due to Non-Compliance (TL)</b>	597.013	0	574.854
<b>Financial Fines Due to Non-Compliance to the Regulations Regarding Provision of Products and Services (TL)</b>	44.055	0	0



# GRI CONTENT INDEX

Indicators	Descriptions and Page Numbers	Omissions
<b>GRI 101: Foundation 2016</b>		
<b>GRI 102: General Disclosures 2016</b>		
<b>Corporate Profile</b>		
102-1	Contacts (p.XX)	-
102-2	<a href="http://www.akcansa.com.tr/en/product-family/bagged-cements/">www.akcansa.com.tr/en/product-family/bagged-cements/</a>	-
102-3	Contacts (p.XX)	-
102-4	About the Report (p.3)	-
102-5	Corporate Profile (p.7-8)	-
102-6	About the Report (p.3); Corporate Profile (p.7-8)	-
102-7	Corporate Profile (p.7-8), Work Life (p.40)	-
102-8	Performance Data (p.XX)	-
102-9	Empowering Economic Value and Innovation (p.26)	-
102-10	No significant change has been occurred neither in company's operational or financial structure nor supply chain	-
102-11	Empowering Economic Value and Innovation (p.22-24), Reducing the Environmental Footprint (p.28)	-
102-12	Reducing the Environmental Footprint(p.28), Corporate Memberships (p.XX)	-
102-13	Corporate Memberships (p.XX)	-
<b>Strategy</b>		
102-14	Message From the Chairperson and the General Manager (p.4-5)	-
<b>Ethics and Integrity</b>		
102-16	<a href="http://www.akcansa.com.tr/en/sustainability/our-codes-of-conduct/">www.akcansa.com.tr/en/sustainability/our-codes-of-conduct/</a>	-

Indicators	Descriptions and Page Numbers	Omissions
<b>Governance</b>		
102-18	Governance and Sustainability (p.12-15)	-
<b>Stakeholder Engagement</b>		
102-40	Governance and Sustainability (p.19)	-
102-41	Performance Data (p.XX)	-
102-42	Governance and Sustainability (p.19)	-
102-43	Governance and Sustainability (p.19)	-
102-44	Governance and Sustainability (p.15)	-
<b>Reporting Practices</b>		
102-45	About the Report (p.3)	-
102-46	About the Report (p.3); Governance and Sustainability (p.15)	-
102-47	Governance and Sustainability (p.15)	-
102-48	No significant restatements made in information given in previous reports.	-
102-49	Governance and Sustainability (p.15)	-
102-50	About the Report (p.3)	-
102-51	About the Report (p.3)	-
102-52	About the Report (p.3)	-
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102-54	About the Report (p.3)	-
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Material Issues			
Standards	Indicators	Descriptions and Page Numbers	Omissions
<b>Greenhouse Gases and Other Pollutant Emissions</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Reducing the Environmental Footprint(p.28-31)	-
	103-2 The management approach and its components	Reducing the Environmental Footprint(p.28-31)	-
	103-3 Evaluation of the management approach	Reducing the Environmental Footprint(p.28-31)	-
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Reducing the Environmental Footprint(p.30); Performance Data (p.XX)	-
	305-2 Energy indirect (Scope 2) GHG emissions	Reducing the Environmental Footprint(p.30); Performance Data (p.XX)	-
	305-4 GHG emissions intensity	Reducing the Environmental Footprint(p.30); Performance Data (p.XX)	-
	305-5 Reduction of GHG emissions	Reducing the Environmental Footprint(p.30)	-
	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Reducing the Environmental Footprint(p.31); Performance Data (p.XX)	-
<b>Dust Emissions</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Reducing the Environmental Footprint(p.28, 31)	-
	103-2 The management approach and its components	Reducing the Environmental Footprint(p.28, 31)	-
	103-3 Evaluation of the management approach	Reducing the Environmental Footprint(p.28, 31)	-
GRI 305: Emissions 2016	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Reducing the Environmental Footprint(p.31); Performance Data (p.XX)	-
<b>Energy Efficiency</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Reducing the Environmental Footprint(p.28-30)	-
	103-2 The management approach and its components	Reducing the Environmental Footprint(p.28-30)	-
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GRI 302: Energy 2016	302-1 Energy consumption within the organization	Reducing the Environmental Footprint(p.29-30); Performance Data (p.XX)	-
	302-2 Energy consumption outside of the organization	Reducing the Environmental Footprint(p.29-30); Performance Data (p.XX)	-
	302-3 Energy intensity	Reducing the Environmental Footprint(p.29-30); Performance Data (p.XX)	-
	302-4 Reduction of energy consumption	Reducing the Environmental Footprint(p.30); Performance Data (p.XX)	-

Standards	Indicators	Descriptions and Page Numbers	Omissions
<b>Biodiversity</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Reducing the Environmental Footprint(p.28, 33-34)	-
	103-2 The management approach and its components	Reducing the Environmental Footprint(p.33-34)	-
	103-3 Evaluation of the management approach	Reducing the Environmental Footprint(p.33-34)	-
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	Reducing the Environmental Footprint(p.33-34)	-
<b>Business Ethics and Anti-Corruption</b>			
GRI 103: Management Approach 2016	103-1 Öncelikli Konunun Açıklaması ve Bağlayıcılığı	Governance and Sustainability (p.14-15); Business Ethics (p.12-13)	-
	103-2 Yönetim Yaklaşımı ve Bileşenleri	Business Ethics (p.12-13)	-
	103-3 Yönetim Yaklaşımı Değerlendirmesi	Business Ethics (p.12-13)	-
GRI 205: Anti-Corruption 2016	205-3 Kesinleşmiş yolsuzluk vakaları ve alınan önlemler	Business Ethics (p.12-13)	-
<b>Community Development</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Empowering Economic Value and Innovation (p.21-26); Corporate Citizenship (p.45-46)	-
	103-2 The management approach and its components	Empowering Economic Value and Innovation (p.21-26); Corporate Citizenship (p.45-46)	-
	103-3 Evaluation of the management approach	Empowering Economic Value and Innovation (p.21-26); Corporate Citizenship (p.45-46)	-
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Empowering Economic Value and Innovation (p.21-26); Corporate Citizenship (p.45-46)	-
<b>Employee Development</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Work Life (p.40, 42-43)	-
	103-2 The management approach and its components	Work Life (p.40, 42-43)	-
	103-3 Evaluation of the management approach	Work Life (p.40, 42-43)	-
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Performance Data (p.XX)	-
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Work Life (p.40, 42-43); Performance Data (p.XX)	-



Standards	Indicators	Descriptions and Page Numbers	Omissions
<b>Occupational Health and Safety</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Excellence in Operational Health and Safety (p.36-38)	-
	103-2 The management approach and its components	Excellence in Operational Health and Safety (p.36-38)	-
	103-3 Evaluation of the management approach	Excellence in Operational Health and Safety (p.36-38)	-
GRI 403: Occupational Health and Safety 2016	403-1 Workers representation in formal joint management– worker health and safety committees	Excellence in Operational Health and Safety (p.38)	-
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Excellence in Operational Health and Safety (p.38); Performance Data (p.XX)	-
<b>Legal Compliance</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.12-15); Reducing the Environmental Footprint(p.28)	-
	103-2 The management approach and its components	Governance and Sustainability (p.12); Reducing the Environmental Footprint(p.28)	-
	103-3 Evaluation of the management approach	Governance and Sustainability (p.12); Reducing the Environmental Footprint(p.28)	-
GRI 419: Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	No such case has occurred during the reporting period.	-
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	Reducing the Environmental Footprint(p.28)	-
<b>Alternative Fuel and Raw Materials</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Reducing the Environmental Footprint(p.33)	-
	103-2 The management approach and its components	Reducing the Environmental Footprint(p.33)	-
	103-3 Evaluation of the management approach	Reducing the Environmental Footprint(p.33)	-
GRI 301: Malzeme Tüketimi 2016	301-1 Materials used by weight or volume	Reducing the Environmental Footprint(p.33)	-
	301-2 Recycled input materials used	Reducing the Environmental Footprint(p.33)	-
<b>Sürdürülebilir Binalar ve Şehircilik</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Governance and Sustainability (p.14-15); Empowering Economic Value and Innovation (p.21, 26)	-
	103-2 The management approach and its components	Empowering Economic Value and Innovation (p.21, 26)	-
	103-3 Evaluation of the management approach	Empowering Economic Value and Innovation (p.21, 26)	-

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