

# SUSTAINABILITY REPORT

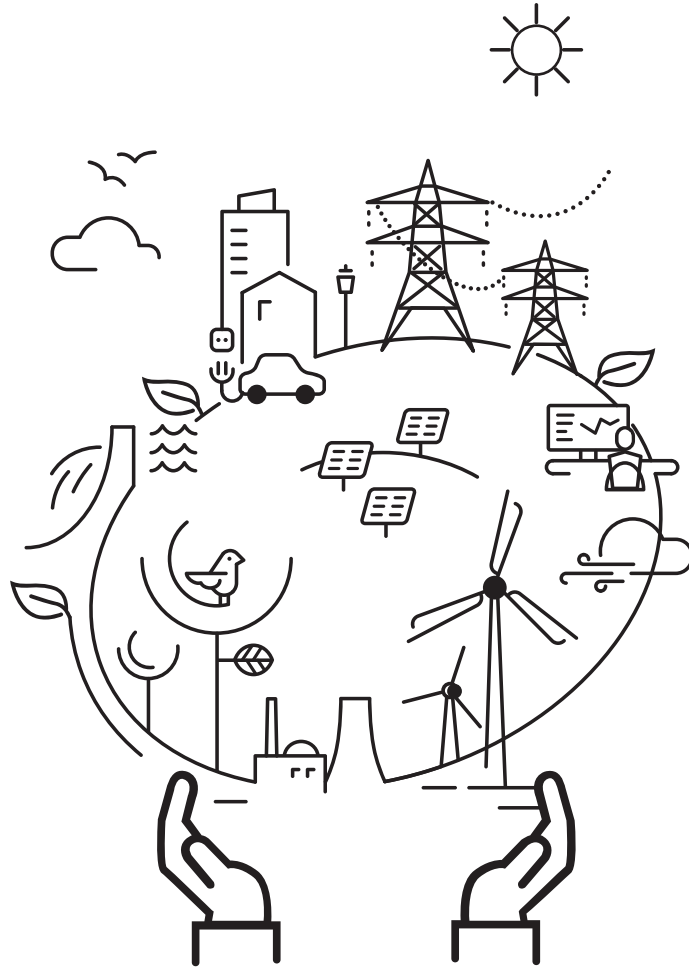
2018







# SUSTAINABILITY REPORT 2018





İÇDAŞ®



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# About Our Report

**W**ith this seventh sustainability report of İÇDAŞ, we continue to share with our stakeholders, the developments and the results of our implementations, which shape our economic, social and environmental performance in 2018. Hence, we give our stakeholders the opportunity to evaluate our efforts in managing, measuring, monitoring and improving our impacts resulting from our operations.

## **Report Scope**

In determining our material sustainability issues with our managers, we took into consideration steel production and energy generation, the major business segments of İÇDAŞ. Unless otherwise stated, the information in this report belongs to the period between January 1, 2018 and December 31, 2018 and includes the operations of all the premises of İÇDAŞ.

## **Reporting Principles**

This report has been prepared in accordance with the GRI Standards: Core option. Besides GRI's materiality, stakeholder engagement, sustainability context and completeness principles, we considered the sustainability performance standards of World Steel Association and International Finance Corporation, IFC.

We included our best practices throughout this report that support both UN Global Compact Principles we signed in 2012 and also UN Sustainable Development Goals launched in 2015, which our country is a stakeholder of..

## **Our Next Report**

We plan to publish our next report covering our 2019 sustainability performance in 2020.





**Bülend ENGİN**  
CEO



## Message to Stakeholders A Letter

Dear Stakeholders,

We continue to share our economic, social and environmental performance and how we manage our sustainability impacts with our targets and best practices in our seventh sustainability report of 2018.

İÇDAŞ, with its environment friendly and innovative technologies, is a major steel, energy and ship producer with roles of an employer, a contractor and an investor. We operate in steel and energy industries, which are critical to Turkey's sustainable development and economic structure.

We monitor the economic impacts of our industries on our country and the community as well as our social and environmental impacts resulting from our operations. We signed UN Global Compact (UNGC) in 2012.

We consider the 10 basic principles of UN Global Compact that were designated for business world with the intention to protect human rights, improve working conditions, protect environment and fight anti-corruption.

Since 2016, we continue our efforts to contribute to the UN 2030 Global Goals for Sustainable Development.

### **We Contribute to the Economy!**

Our country became the world's 8th largest crude steel producer in 2018 with 37.3 million tons. We produced 9,8% of Turkey's crude steel in our Değirmencik Integrated Plant at Biga, Çanakkale. İÇDAŞ energy generation has reached 4,5% of Turkey's total energy generation with 12,93 billion kWh in 2018.

All business investments we encounter have indirect impacts on national economy and our community. Our expansion investments along with our local and national economic contributions were the outstanding topics among our economic impacts this year. Our strong financial structure supports our environmental and social investments.

Total direct investment amount of İÇDAŞ in Çanakkale region is 5.6 billion USD so far where approximately 421,5 million of it was done in 2018. We employ 77% of our employees from local communities.

## **We Value our Employees and the Community**

Material social impacts of our operations consist of health and safety, and engagement with employees and local people. Our mission is creating teamwork, fair attitude, open communication, personal and occupational development opportunities by providing a safe and effective work environment.

We conduct all our operations with zero accident goal. Since our establishment we have been investing on raising quality of life, improving social life by providing education and sports opportunities and meeting societal needs.

We continue our investments with a holistic approach, for the preservation of our cultural heritage at six different towns, a topic which addresses everyone in the community.

Turkish Ministry of Culture and Tourism took a decision that would amplify the importance of Troia which was included in UNESCO Cultural Heritage list in 1998 and announced 2018 as the Year of Troia. As İÇDAŞ, we are proud to support Troia Antique City excavations as the main sponsor since 2015.

## **We Respect the Environment!**

As we are involved in industries that have high impacts on environment we put our efforts to minimize these impacts beyond legal requirements.

Emission management for climate protection, waste management to prevent environmental pollution and water management that we initiated for the preservation of natural resources constitute a significant part in our business.

In 2018, our total investment in environment protection projects is more than TRY 311 million. Our primary goal in waste management is to recycle waste. This year, our recycled waste rate was 74% in Değirmencik and 62% in Bekirli facility.

At İÇDAŞ Değirmencik Integrated Facility, we manage fresh water issue under the scope of 'Sustainable Water Management Project'. We supply all our water needs, including fresh water, completely from the sea. In 2018, we reused 386 million m3 water after wastewater treatment.

Emission reduction and climate protection covered 65% of our operational costs on environmental protection.

As İÇDAŞ, while ensuring sustainable growth, our perpetual goal is to continue increasing the value we create for our stakeholders. Sharing your ideas, suggestions and questions about this report with us will help us create more value for you all.

Regards,

*Bülend Engin*  
CEO



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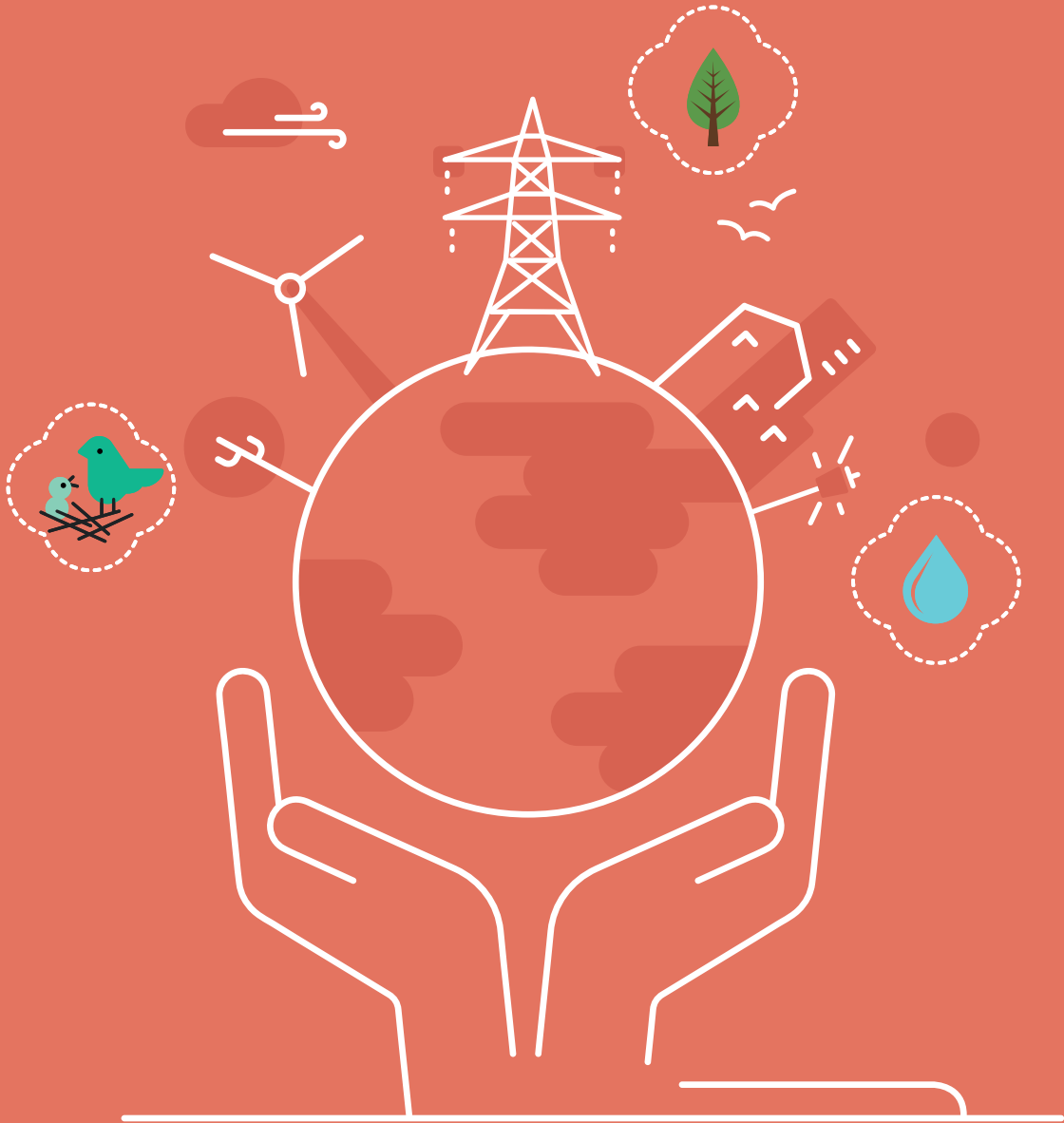
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# Corporate Profile

As İÇDAŞ, which is one of the largest private sector steel producer in terms of capacity and one of the largest export leaders of Turkey, we have been producing steel since 1970.

Our group companies operate in steel, energy, shipyard, logistics (sea, road), transportation (airway), harbor operations, construction, insurance, mining, agriculture and livestock sectors.

Our Değirmencik Integrated Plant in Biga, Çanakkale includes three melt shops with five and a half million tons/year production capacity, three rolling mills with three million tons/year capacity, three units 405 megawatts power plant, four HPPs, a SPP, a shipyard, two docks, a wharf and Turkey's largest private harbor with 30 thousand tons of loading and 60 thousand tons of unloading capacity and their auxiliary facilities.

Besides our Değirmencik Integrated Plan, we operate a two units power plant of 1,236 megawatts in Bekirli region of Biga and 60 megawatts installed capacity wind power plant at Biga.

Today, İÇDAŞ has a turnover of approximately 14.76 billion TL and is environmentally friendly technologies, employer, contractor, investor and innovative technology solutions provider. We are a steel, energy and ship manufacturer. Significant amounts of foreign exchange to our country every year 5 thousand direct and indirect employment that we create. We are creating an economic family of approximately 10 thousand people.



## Group Companies



**İÇDAŞ Çelik Enerji Tersane ve Ulaşım San. A.Ş.**  
Steel, Electricity and Ship Production



**İÇDAŞ Elektrik Enerjisi Üretim ve Yatırım A.Ş.**  
Electricity Generation



**İÇDAŞ Elektrik Enerjisi Toptan Satış İthalat ve İhracat A.Ş.**  
Electricity Sales



**ERAS Taşımacılık Taahhüt İnşaat ve Ticaret A.Ş.**  
Road Transportation



**BİGAİR Havacılık ve Taşımacılık Sanayi ve Ticaret A.Ş.**  
Airway



**İÇDAŞ Dış Ticaret A.Ş.**  
Agriculture and Livestock



**İÇDAŞ Sigorta Aracılık Hizmetleri A.Ş.**  
Insurance



**İÇYAPI İnşaat Taahhüt ve Ticaret A.Ş.**  
Construction



**İÇE TANKER Deniz Taşımacılık Ltd. Şti.**  
Ship Management



**Total Installed Capacity**  
**1.706,85 MW**



**Crude Steel Production**  
**3.66 Million Tons**



**Electricity Generation**  
**12.92 Billion kWh**




**12<sup>th</sup> Highest Export Volume in Turkey**  
**2<sup>nd</sup> Highest Export Volume in Steel Sector**



**Export Volume**  
**USD 1.12 Billion**



**Consolidated Net Sales**  
**TRY 14.765 Billion**



**Distribution of Net Sales**

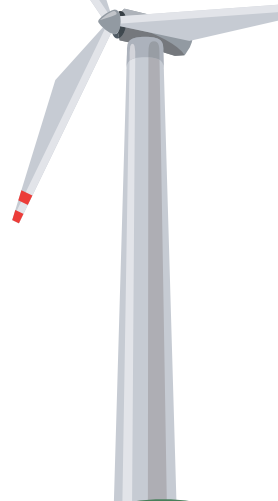
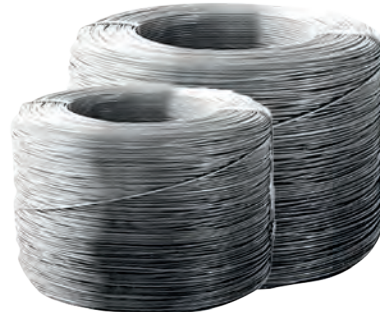
- 66.39% Steel
- 28.54% Energy
- 5.07% Other



# Products

In our steel plants, we produce products like steel billet, reinforcing steel bar, debar in coil and wire rod, which conform international standards and in our power plants we generate electricity. Steel products are used in construction, automotive, rubber, machine manufacturing, etc. Electricity generated at the power plants is conveyed to entities by means of government transmission network. We usually incorporate the ships produced in our shipyard to our own İÇDAŞ fleet.

- 1** Steel billet is the starting point of such rolling products as reinforcing steel bar, plain bar, debar in coil and wire rod. It is semi-finished product that is long and continuous casting and has square cross-section with 100 mm-200 mm diameter / length.
- 2** Reinforcing steel is a steel bar with ribs, commonly used in reinforcing concrete buildings. It was produced as an alternative to plain bar and substituted it in time.
- 3** Wire rod is a semi-finished metal bar wrapped in bobbins, hot rolled from billet, usually has a round cross-section and is cold drawn into wire. It is used to produce welding electrode, steel mesh, wire, bolt, spring etc.
- 4** Electricity generated at our power plant, hydroelectric, wind and solar power plants is distributed to end users via Turkish Electricity Distribution Company (TEDAŞ) transmission network. End users include; hotels, industrial companies, shopping malls, business centers, restaurants, schools, associations, residential and government facilities and clients from industries such as fuel oil, IT, steel, finance and investment, construction, cement, food, electronics, logistics, mining, automotive, health, agriculture, textile, transportation.
- 5** In our shipyard we manufactured 14 ships including chemical tankers and dry cargo ships. We also started production of 7.500 DWT stainless steel chemical tanker (İÇDAŞ 29) in 2016 with 16 million euros budget and continued the construction in 2018. We are planning to launch the ship in 2019. We also launched the 65-ton BP tugboat (Karayusuf-2) with 3.4 million euros budget that we started building in October 2018.





# Facts and Figures of İÇDAŞ

## Corporate Profile

## Sustainability Profile

### ECONOMIC



**Consolidated Net Sales**  
**TRY 14.765 Billion**



**Distribution of Net Sales**  
● 66.39% Steel  
● 28.54% Energy  
● 5.07% Other



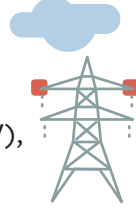
**42**  
**Export Volume**  
**USD 1.12 Billion**  
42 Number of Export Countries



**12<sup>th</sup>** Highest Export Volume in Turkey  
**2<sup>nd</sup>** Highest Export Volume in Steel Sector



**Total Installed Capacity\***  
**1.706,85 MW**  
72.41% Bekirli Power Plant (1,236 MW),  
23.73% Değirmencik Power Plant (405 MW),  
3.52% Wind Power (60 MW),  
0.31% Hydraulic Power (5.30 MW),  
0.03% Solar Power (0,55 MW)



**Electricity Generation**  
**12.92 Billion kWh**  
(3.9% of Turkey's total electricity generation in 2017)

### SOCIAL



**Number of Group Employees**  
**5.826**



**Local Employment Rate**  
**% 77**  
Increase in Employment 11%



**Community Investments**  
**TRY 55.27 Million**

**Community Investments**  
● Sports 2%  
● Education 36%  
● Infrastructure 53%  
● Cultural 9%

### ENVIRONMENTAL



**Environmental Operational Expenses and Investments**  
**TRY 311.01 Million**

**Distribution of Our Investments**  
● 85% Değirmencik Plant  
● 15% Bekirli Plant



**Crude Steel Production**  
**3.66 Million Tons**  
(9.81% of Turkey's total production)

**Daily Recycling Capacity of Scrap Steel**  
**15 Thousand Tons**

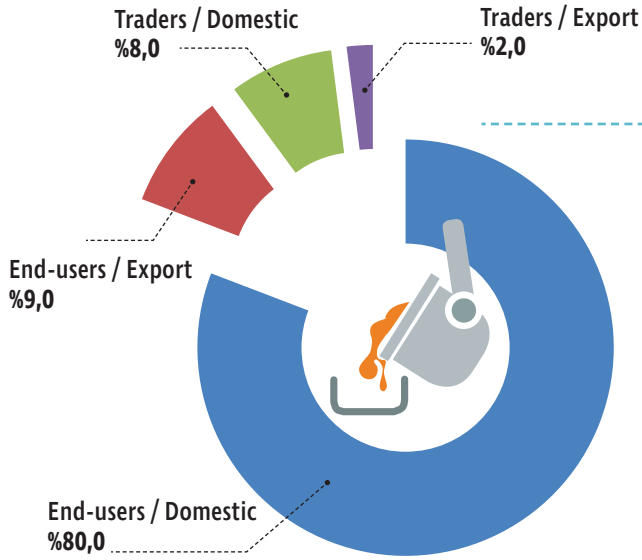
(The ratios about Turkey are based on 2018 TÇÜD data.)







# Customer Profile



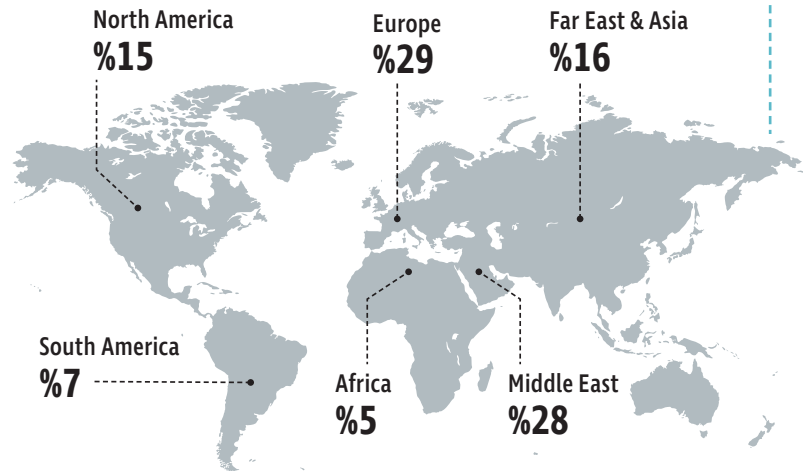
## Steel Customers

Steel Customers	Number	Ratio
End-users / Domestic	812	80%
End-users / Export	24	9%
Traders / Domestic	96	8%
Traders / Export	85	2%
<b>Total</b>	<b>1.169</b>	<b>100%</b>

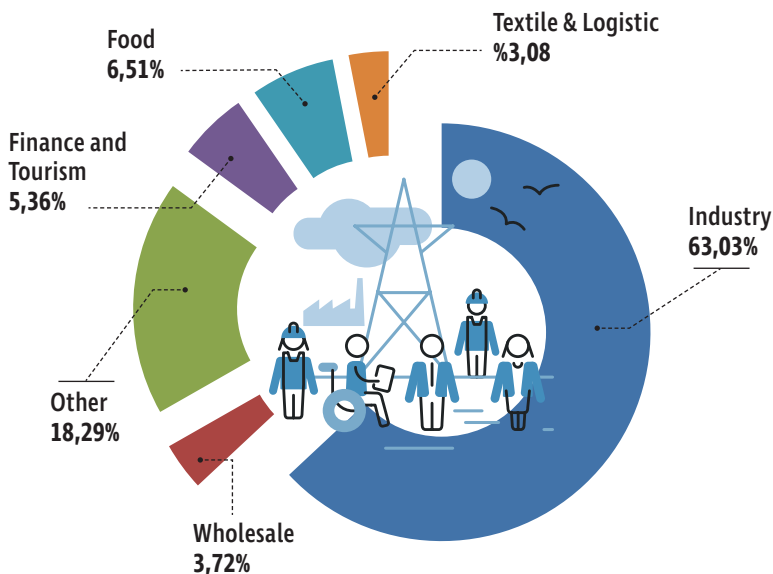
\*End users: Construction companies, steel mesh and wire producers.  
\*\*Traders: Distributors, Intermediary companies

## Steel Export Markets

Steel Export Markets	
Far East and Asia	16%
N. America	15%
S. America	7%
Africa	5%
Europe	29%
Middle East	28%



## Electricity Customers (By Consumption)



## Electricity Customers (By Consumption)

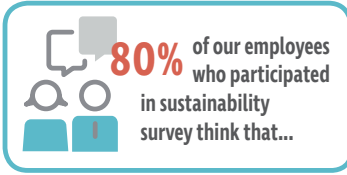
Industry	63.03%
Wholesale	3.72%
Other	18.29%
Finance and Tourism	5.36%
Food	6.51%
Textile & Logistic	3.08%



# Strategy and Management

We carry out our responsibilities towards our society and environment with our vision of products and services in international quality and standards in every sector in which we operate.

Since the first day of İÇDAŞ, we run many projects to realize our corporate social responsibilities. Today we keep on developing our current and new projects in the light of international initiatives like UN Global Compact and Sustainable Development Goals.



İÇDAŞ manages all its business processes in line with corporate governance principles of transparency, equity, accountability and responsibility.

## Corporate Management

İÇDAŞ is a family owned business where Board of Directors is equally responsible for company's economic, environmental, social practices. All members including the founders are experienced industrial leaders of Turkish business community. Their self-evaluation performance criterion is the extent of growth and accomplishment of sustainability targets of İÇDAŞ.

All members of the Board have different executive roles in different group companies. There are no members other than family members in the board of directors of all group companies. There are not any committees under the Board of Directors.

Because of their executive roles, board members are always in touch with each other and manage sustainability risks and opportunities daily. The Board of Directors constantly monitors company rank in Turkey's first 500 industrial companies list and Turkish Steel Producers Association - TÇÜD's industrial data and reports and thus, makes decisions immediately.

At İÇDAŞ, we use SAP system for internal audit and risk management including sustainability risks. The transition to SAP, HANA system, which we started in 2018, continued systematically. The new database developed by the HANA module changed the database structure used completely into the in-memory structure. Thanks to the in-memory technology, RAM started to be used instead of hard disk and we aim to make the processing much faster than before and thereby we have a platform that works with high efficiency. The Board of Directors has already identified the current and potential risks and determined the policies regarding these risks. The policy determined to manage sustainability risks can be found in İÇDAŞ Management Policy Book..

Our Discipline Procedure includes principles and rules for all our employees, to prevent actions against employee health, occupational safety, information security and business norms. Either the Discipline Committee or directors and department managers handle complaint cases.

## Sustainability Management

At İÇDAŞ, our sustainability strategy is based on providing clean and healthy environment for all of our employees and the local community in all of our fields of activity and locations. Our objective is to increase sustainable steel and energy production by focusing on environmental management, occupational safety and quality and applying up to date, scientific, efficient and effective business schemes of our innovative management culture.

By signing UN Global Compact, we elevated the values and principles we embraced since our establishment to a global level of corporate responsibility.

We hereby commit to be a good corporate citizen abiding the principles highlighted in this compact such as respecting human rights and environment, providing healthy and equitable workplace, and awareness of anti- corruption.

Creating value for our stakeholders in all of our operations consists the basis of our sustainability understanding. The principles we determined to explain our sustainability approach clearly to our stakeholders, represent our commitments in managing our sustainability impacts throughout our operations and investments.

### Sustainability Principles

- ✓ Determining and using the technologies that is convenient for preservation of environment, prevention and elimination of pollution, developing projects and ensure their implementation,
- ✓ Taking the necessary measures and precautions in order to dispose the pollutants caused by our activities, without causing any damage to the environment and improving our environment performance constantly based on our waste management policy,
- ✓ Reducing CO<sub>2</sub> emissions caused by products and services,
- ✓ Formulating constantly growing and developing performance criteria with management systems and objectives,
- ✓ Conducting any kind of measurements, analyses and controls based on environmental standards and ecological criteria in order to conserve the environment and prevent pollution,
- ✓ Fulfilling all national laws, regulations and international conventions that pertain to our sector in terms of environment,
- ✓ Ensuring that economic decisions are considered together with ecological decisions to achieve a well-balanced and sustainable development in our position in the sector,
- ✓ Taking necessary precautions and measures in the use of natural resources adapting to sustainable development goals,
- ✓ Developing operational policies by taking into consideration demands of non-governmental organizations, entities as well as the community living around us,
- ✓ Implementing a continuous education program for our employees in order to render the environmental practices effective and to increase environmental awareness,
- ✓ Using methods to ensure that the effects arising from transport operations are minimized, Ensuring the efficient use of energy and continuously improving it,
- ✓ Providing efficient use of water and keep water consumption per unit of product at the lowest level.



For Sustainable  
Development  
**GLOBAL  
GOALS**





# Stakeholder Engagement

65% of our employees who participated in sustainability survey think that...

“The communication platforms which employees share their ideas and suggestions with top management are sufficient at İÇDAŞ.”

Our stakeholders are those individuals and companies who have impacts on our business with their decisions and actions as well as who are already and will be affected by our operations today and in the future. Stakeholder groups’ views about our company may vary due to their different points of interest. As İÇDAŞ, we try to communicate with our stakeholders to inform all of them about our operations and get their opinions using various communication platforms.

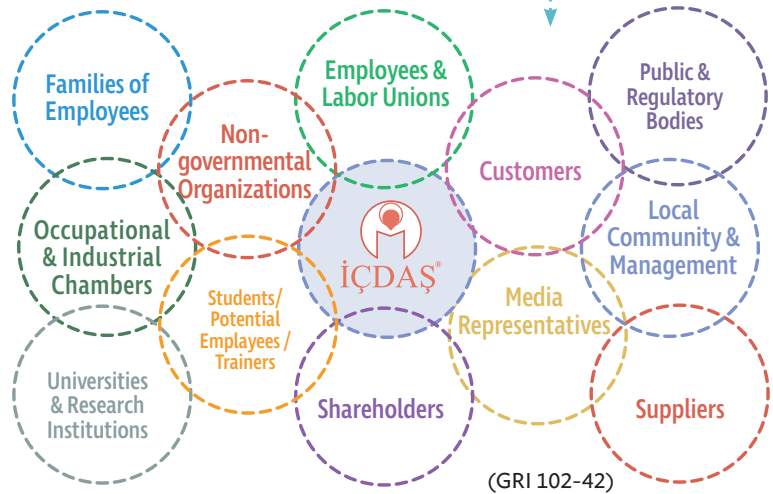
We reviewed our strategic topics and our key stakeholders with our Sustainability Working Group, which we have determined through a sustainability identification survey followed by a strategy workshop, with the participation of executives in the previous years.

## Key Stakeholders

We aim to improve existing platforms and listen to our stakeholders’ expectations which are directly related to our operations, on a regular basis, in the next reporting periods. We believe the feedback we will receive will help us shape our sustainability goals.

## Stakeholders

- ⊕ Employees & Labor Unions
- ⊕ Shareholders
- ⊕ Customers
- ⊕ Public & Regulatory Bodies
- ⊕ Local Community & Management
- ⊕ Media Representatives
- ⊕ Suppliers
- ⊕ Occupational & Industrial Chambers
- ⊕ Non-governmental Organizations
- ⊕ Families of Employees
- ⊕ Universities & Research Institutions
- ⊕ Students/ Potential Employees / Trainers



# Communication Platforms















Stakeholders	Communication Platform	Communication Frequency
Employees and Labor Unions	İÇÖS Suggestion System, Intranet	Continuous
	OHS Meetings	Monthly
	News walls	Continuous
Shareholders	Board Meetings	Weekly
	Call Center and Customer Portal	Continuous
Customers	Seminars, congresses, exhibitions	A few times a year
	Visits	Continuous
	Product flyers	A few times a year
	Factory tours and information meetings	Once a year
<b>Public and Regulatory Bodies</b>	Face to face meetings	Indefinite
Local Communities and Management	Face to face meetings	A few times a week
Media Representatives	Face to face meetings	Weekly
	Phone, e-mail, social media	A few times a week
Suppliers	Ethical Supply Chain Policy briefing	Once a year
<b>Non - governmental Organizations</b>	Memberships	Monthly
Families of Employees	Cultural trips	A few times a year
	Picnics and social activities	A few times a year
Universities and Research Institutions	Factory tours and presentations	2 Once a month
	Occupational tutoring	Continuous
Students / Potential Employees / Trainees	Factory tours and presentations	1-2 times a week
	Presentations on OHS and environment	1-2 times a week

(GRI 102-43)

# Strategic Topics From Stakeholder View

Topics	Employees and Labor Unions	Shareholders	Customers	Suppliers	Media	Local Communities and Management	Public & Regulatory Bodies
<b>Economic Performance</b>	****	****	***	****	**	***	***
<b>Employment</b>	****	****	***	**	**	**	*
<b>Health and Safety</b>	****	****	***	**	****	****	****
<b>Education and Training</b>	****	****	***	**	**	**	*
<b>Local Communities</b>	***	***	*	***	****	****	****
<b>Emissions</b>	**	****	**	**	****	****	****
<b>Biodiversity</b>	**	***	**	*	****	****	***
<b>Energy</b>	***	****	***	*	**	*	***
<b>Water</b>	**	****	**	*	****	***	**
<b>Effluents and Waste</b>	**	****	**	*	****	****	****

# Cooperations for Sustainable Development Goals

Relevant SDG	Project Name	Cooperating NGO or Public Institution	Cooperation Start Date	Cooperation End Date
	Stock Farming, Beekeeping and Sheep & Goat Breeding	Food, Agriculture and Livestock Directorate of Biga District Biga Red Meat Association Çanakkale Beekeepers' Association	2007	Continuous
	İÇDAŞ Agricultural Practices	Food, Agriculture and Livestock Directorate of Çanakkale Province and Biga District	2007	Continuous
   	İÇDAŞ Sports Club	<ul style="list-style-type: none"> <li>• Turkey Basketball Federation</li> <li>• Turkey Chess Federation</li> <li>• Turkey Archery Federation</li> <li>• Turkey Sailing Federation</li> <li>• Turkey Swimming Federation</li> <li>• Çanakkale Provincial Directorate of Youth Services and Sports</li> <li>• Çanakkale Basketball Provincial Representative Office</li> <li>• Çanakkale Chess Provincial Representative Office</li> <li>• Çanakkale Sailing Provincial Representative Office</li> <li>• Çanakkale Swimming Provincial Representative Office</li> <li>• Çanakkale Governorship</li> <li>• Biga District Governorship</li> <li>• Çanakkale Municipality</li> <li>• Karabiga Municipality</li> </ul>	2010	Continuous
 	Radiation Safety	TAEK Institutional Research Repository	Continuous	Continuous
	Trainings from İÇDAŞ Employees	Biga Vocational School	2013	Continuous
 	Biga Science High School	Biga District Governorship and Biga Municipality	2016	2018
	Taking WPP into Operation in Full Capacity	Ministry of Energy and Natural Resources General Directorate of Renewable Energy	2014	Continuous
 	Generation of Electricity from Cooling Water Discharge	Ministry of Energy	2011	Continuous
	Türk Yıldızı (Turkish Star) Project	Turkish Maritime Trade Coaster Fleet	2012	Continuous

Relevant SDG	Project Name	Cooperating NGO or Public Institution	Cooperation Start Date	Cooperation End Date
	Steelmaking slag; Coastal Port Filling Aggregate, Railway Ballast Material and Use as Mineral Fertilizer in Agriculture	Turkish Steel Producers Association (TÇÜD) and Istanbul Technical University (İTÜ)	2018	Continuous
	Turkish Steel Producers Association (TÇÜD) and Istanbul Technical University (İTÜ)	Ministry of Culture and Tourism	2008	Continuous
	Apollon Smintheion Excavations Main Sponsorship	Ministry of Culture and Tourism	2011	Continuous
	Ministry of Culture and Tourism	Ministry of Culture and Tourism	2015	Continuous
	Assos Excavations Main Sponsorship	Ministry of Culture and Tourism	2016	2021
	Alexandria Troas Excavations Main Sponsorship	Ministry of Culture and Tourism	2017	2028
	Maydos Excavations	Ministry of Culture and Tourism	2018	Continuous
 	Monitoring Air Quality via Continuous Emission Monitoring System (CEMS)	Ministry of Environment and Urbanization	2015	Continuous
 	Sanayi Tesisleri Etki Alanı Hava Kalitesinin İzlenmesi	Ministry of Environment and Urbanization	2010	Continuous
 	Monitoring Cooling Water Discharge by Continuous Waste Water Monitoring System (SAİS)	Ministry of Environment and Urbanization	2012	Continuous
 	Artificial Reef and Supporting	İÇDAŞ	2014	Continuous
	Sustainable Turkish Straits System Project (Çanakkale Sea Lovers)	TURMEPA Turkish Marine Environment Protection Association	2016	2018
 	Biga Peninsula Environmental Monitoring Project	TÜBİTAK Marmara Research Center	2010	Continuous
 	Monitoring Biodiversity around the Premises	İÇDAŞ	2013	Continuous
 	Biga WPP Ornithological and Wildlife Observation Study	Akdeniz and Selçuk Universities	2013	2018

# Strategic Sustainability Topics

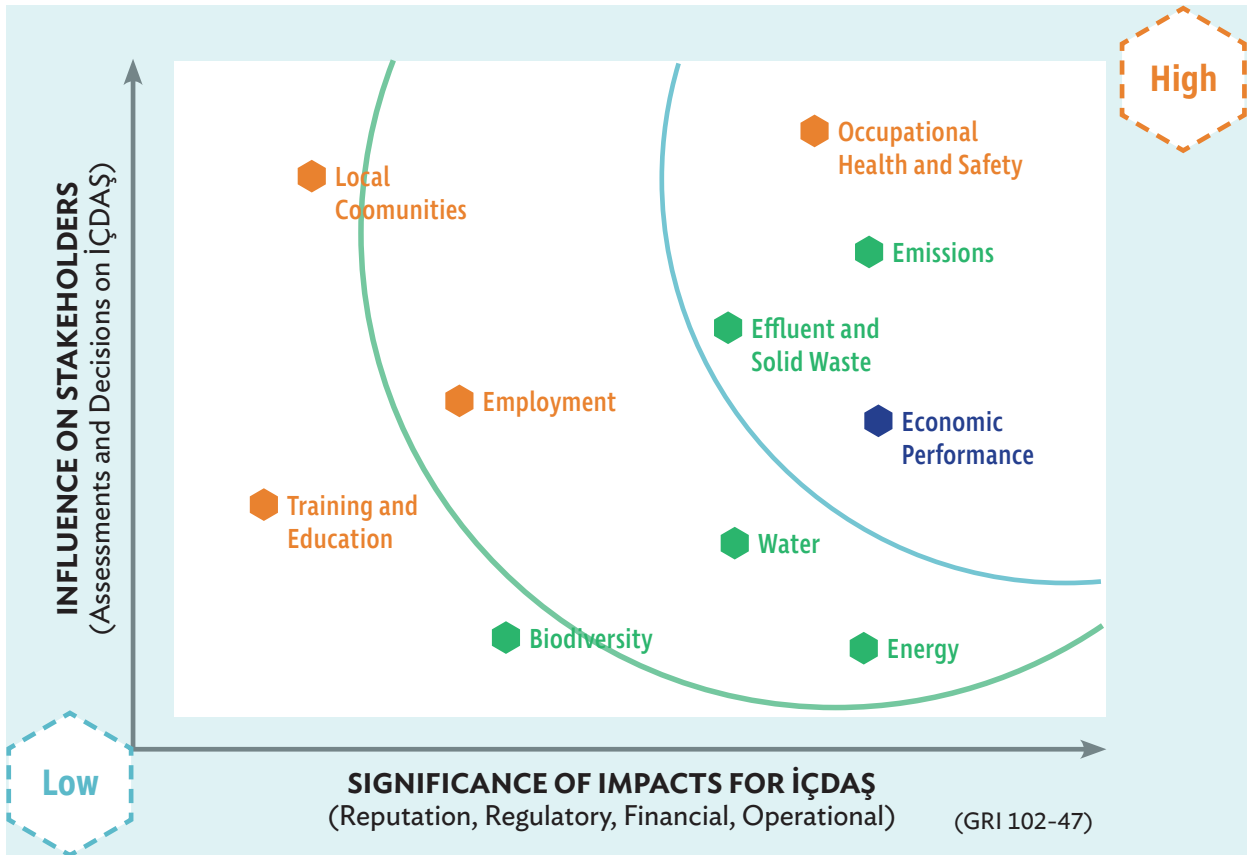
The strategy questionnaire, strategy workshop and sustainability assessment survey, which we conduct with the participation of all senior executives, including the Board of Directors, and our employees, form the basis of our triple impact determination process.


As a result of intensive evaluations with our managers during the materiality workshop, we analyzed our material issues under economic, social and environmental topics, prioritized them and prepared İÇDAŞ Materiality Matrix. We review these topics annually with our Sustainability Working Group.

## Sustainability Matrix

On the right hand top part of the matrix, we placed the issues with high importance for both our company and our key stakeholders and which directly and significantly affect our company's reputational, regulatory, financial and operational performance. These issues constitute the main topics of this report where we shared our company's performance with relevant data and in detail.

## İÇDAŞ Strategic Sustainability Topics Matrix



 <b>Priorities of Employees</b>			
1	Occupational Health and Safety	7	Effluent and Solid Waste
2	Employment	8	Local Communities
3	Economic Performance	9	Biodiversity
4	Energy	10	Emissions
5	Training and Education		
6	Water		



# Boundaries of Material Topics

Material Topics	Topic Boundary		Limitations of Reporting	
	Internal	External	Internal	External
Economic Performance	All İÇDAŞ	N / A	None	N / A
Employment	All İÇDAŞ	N / A	None	N / A
Health and Safety	İÇDAŞ Değirmencik and Bekirli	Subcontractor accident data	None	Only legal responsibilities are fulfilled
Education and Training	All İÇDAŞ	N / A	None	N / A
Local Communities	İÇDAŞ Değirmencik and Bekirli	N / A	None	N / A
Emissions	İÇDAŞ Değirmencik and Bekirli	Subcontractor	None	Emission control of subcontractor vehicles entering facilities
Biodiversity	İÇDAŞ Değirmencik and Bekirli	Neighbor terrains to İÇDAŞ borders	None	N / A
Energy	İÇDAŞ Değirmencik and Bekirli	N / A	None	N / A
Water	İÇDAŞ Değirmencik and Bekirli	N / A	None	N / A
Effluents and Waste	İÇDAŞ Değirmencik and Bekirli	Subcontractor	None	Subcontractors are bound by our waste water and waste management norms for their activities within İÇDAŞ premises.

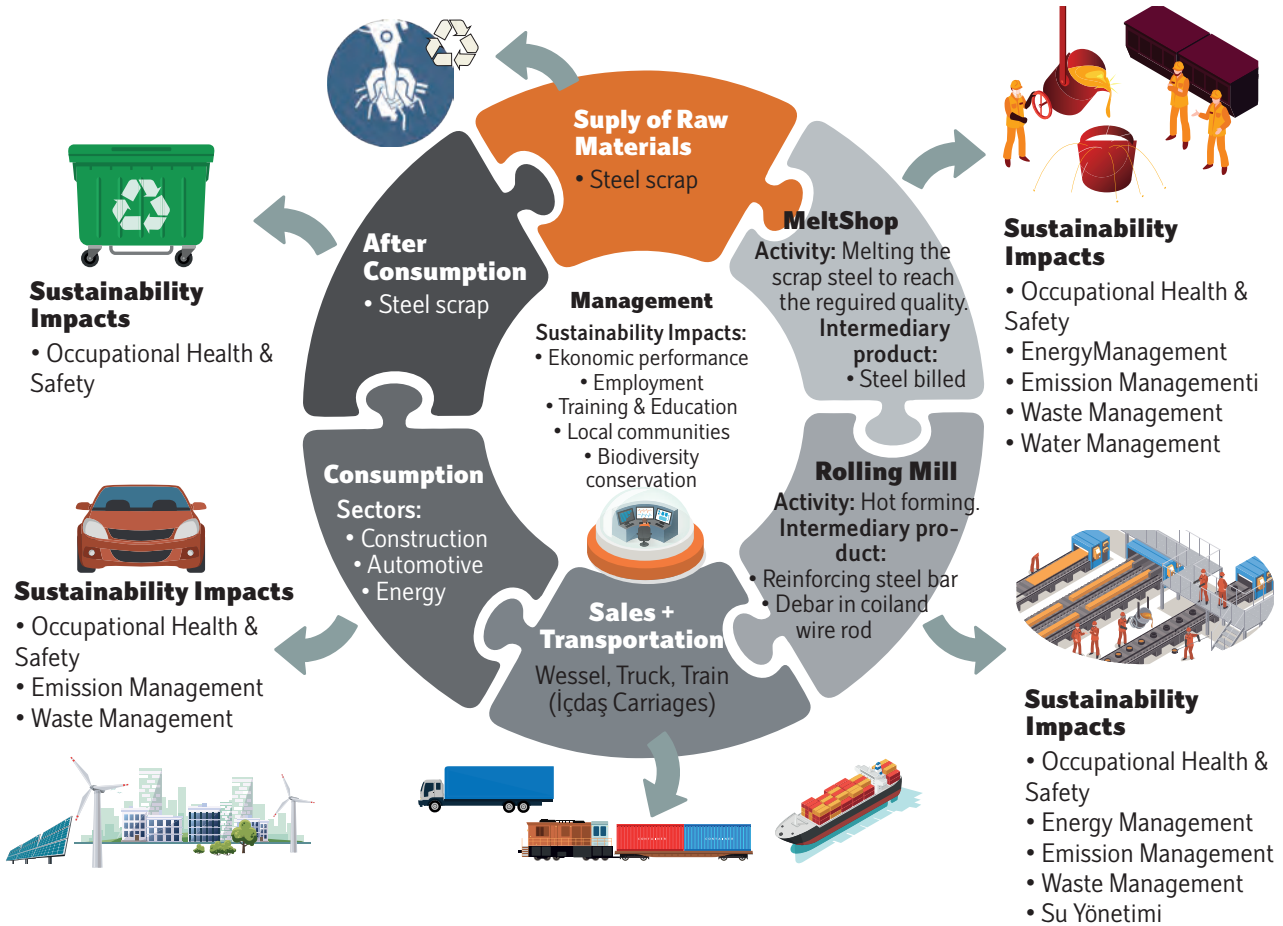
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# Sustainability Impacts Along the Value Chain

In the strategy review meeting we have conducted in 2018 with our Sustainability Working Group, we analyzed our sustainability impacts along our steel and power production value chains. This analysis showed that our impacts mainly occur during our production processes. We share this analysis with our stakeholders through the following schema.

## İÇDAŞ Sustainability Impacts Along the Value Chain (Steel Production)



# İÇDAŞ Sustainability Impacts Along the Value Chain (Energy Production)

## Sustainability Impacts

- Energy Management
- Emission Management
- Waste Management
- Occupational Health & Safety

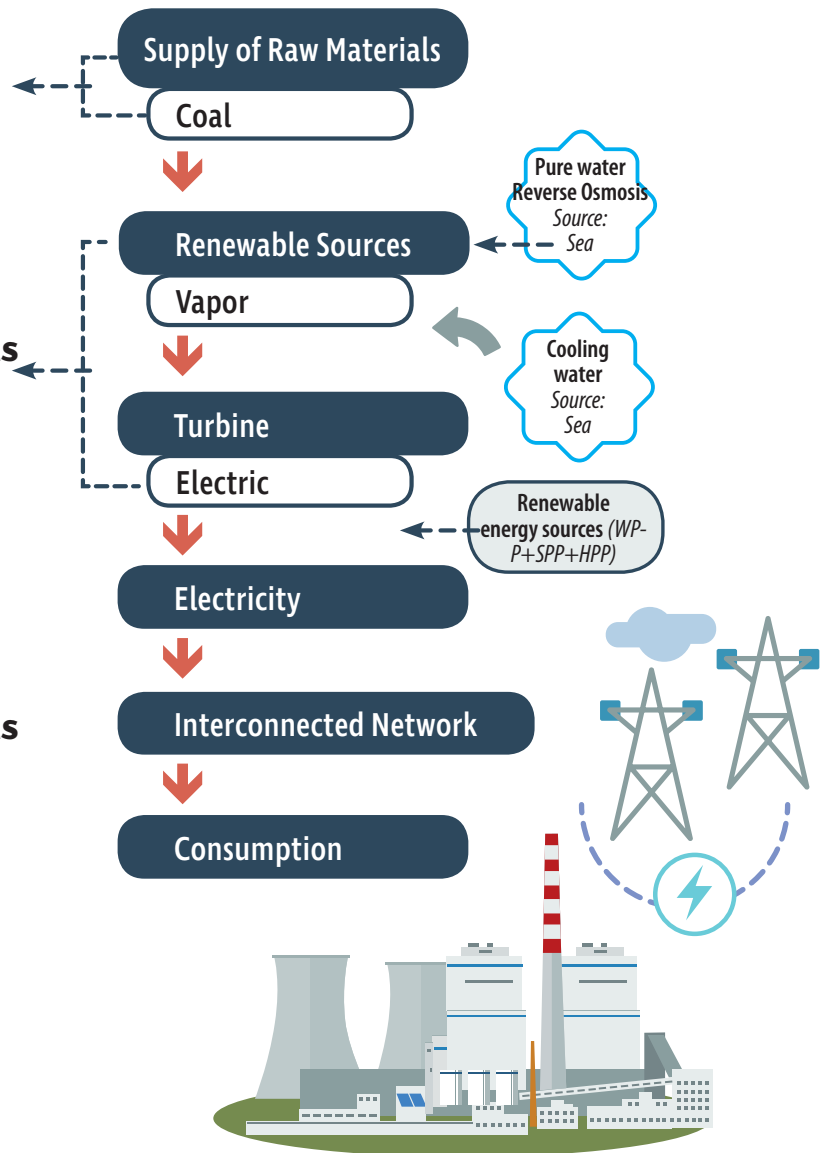
## Sustainability Impacts

- Energy Management
- Emission Management
- Waste Management
- Occupational Health & Safety
- Water Management

## MANAGEMENT

## Sustainability Impacts

- Economic Performance
- Employment
- Education
- Local Communities
- Biodiversity Conservation



## Strategic Sustainability Targets

Topics	Targets	Target Deadline	Completed / New Targets
<b>Economic Performance</b>			
<b>Contributions to National and Local Economy</b>	Analyze the economical convenience of local ores in steel production and use them	2023	We continue to work on utilization of local ores.
	Build 16,000 DWT general cargo ship	2017	2018
	Increase employment through our investments	Continuous	In 2018 we hired 460 new employees.
	To make new investments in shipyard sector.	2020	In 2018, we started building drydock.
	Invest in cement and clinker facilities	2023	We continued the projects in 2018.
<b>Social Performance</b>			
<b>Occupational Health and Safety</b>	Accomplish zero accident target	Continuous	We continue OHS trainings.
	Provide OHS training to 100% of employees	Continuous	All staff recruited in 2018 participated in OHS trainings.
	Provide OHS training to 100% of subcontractors	Continuous	All subcontractors employed in 2018 participated in OHS trainings.
<b>Employment</b>	Increase employee satisfaction	Continuous	Monitor by satisfaction survey. We continue investments to improve physical conditions
	Increase the efficiency of İÇÖS Suggestion System	Continuous	850 suggestions are collected in 2018 and 309 of them are realized.
<b>Local Community Engagement</b>	Continue social investments focusing mainly on education, sports and culture	Continuous	We continue sports activities at İÇDAŞ Sports Club and our cultural investments.
	Increase the number of our facility visitors to 15,000 since 2011	2020	90% of 476 guests we hosted in 2018 were students from local schools and 10% were NGO representatives.
	Continue lectures at Biga Vocational High School	Continuous	In 2018, 2 İÇDAŞ supervisors and assistant supervisors tutored 20 students each week. Lectures included 2 different topics like fundamentals of steel and energy as well as environment, occupational safety and quality
	Introduce 200 young people with swimming, 300 with sailing and 300 with windsurfing each year	Continuous	Exceeded the targets in 2018
	Increase number of students at the Sports Club	Continuous	Reached a total of 426 students of whom 202 were licensed.
	Continue main sponsorship of Parion Excavations	2026	Excavations continue.
	Continue sponsorship of Apollon Smintheion Excavations	2020	Excavations continue.
	Continue sponsorship of Troy Excavations	2020	Excavations continue.
	Continue sponsorship of Alexandria Troas Excavations	2028	Preparation of the protocol for sponsorship activities in 2018.

<b>Local Community Engagement</b>	Initiate Assos Excavations sponsorship	2021	We began to sponsor excavations.
	We started sponsorship of Maydos Kilise Tepe Tumulus Excavation Area	2028	We began to sponsor excavations.
<b>Environmental Performance</b>			
<b>Emission Management</b>	Prefer rail and marine transportation instead of road and reduce the use of road transportation	Continuous	We mostly used railway and marine way in 2017 for our logistics activities.
	Reach 400 thousand planted trees	2023	233,384 saplings were planted until 2018. In 2018, 3048 saplings were planted.
	Monitor and broadcast the air quality around our facilities online	Continuous	Data is monitored online by the ministry
<b>Waste Management</b>	Reduce regularly stored waste amount to 5%	2020	We continue R&D studies to use power plant coal ash in cellular concrete, cement, lime etc.
	Contribute to the study of İTÜ, Ministry of Environment and Urbanization, TÇÜD and KGM (General Directorate of Highways) collaboration to develop alternatives of artificial aggregate use in road construction.	2016-2017	The project is completed in 2017. Artificial aggregate will be included in the technical specification of KGM in 2018. Artificial aggregate made of clinker will be used in road construction as side product.
	Investigation of the possible use of steelmaking slag as "Coastal Port Filling Aggregate, Railway Ballast Material and Mineral Fertilizer in Agriculture" and drafting legislation proposal by Steel Producers' Association of Turkey (TÇÜD) and Istanbul Technical University (ITU)	2020	Project studies were initiated at the end of 2018 and aimed to be completed by 2020.
	Make items to use in daily life using timber waste	2018	We recovered timber waste by making over 150 pieces of goods from boxes to tables and stools to ladders to use within the factory.
<b>Water Management</b>	Continue seawater treatment to preserve scarce freshwater sources	Continuous	In 2018, we continued to supply Değirmencik and Bekirli facilities' total need for water from the sea.
<b>Energy Management</b>	Keep carbon content in fly ash of Değirmencik Power Plant's 3 units under 6.5%	Continuous	Target reached. 6.35% average is realized by the end of 2018.
<b>Conservation of Biodiversity</b>	Continue TÜBİTAK MAM Environmental Monitoring Project	2021	In 2016, the first period of 6 years is completed, and final report is prepared. Monitoring studies extended to 2021 by a new agreement with TÜBİTAK MAM in 2016.
	Make sure annual reports on biodiversity at Biga region are prepared	Continuous	We prepared 2018 report.
	Prepare 2018 biodiversity species inventory, monitor year to year dispersal	2018	No new species are added to our regional species inventory list in 2018.
	Making ornithological and wildlife observations at WPP fields	2018	Between March 1 and November 1, 2018, our biologist monitored autumn migration period.
	Build temperature monitoring system for cooling water 1 channel and initiate temperature monitoring process.	2018	In 2018, installation work was completed and active temperatures were started to be monitored. With 4 SAIS, our wastewater measurements are shared with MoEU live.



# Economic Performance

**A**t İÇDAŞ our corporate culture is based on fulfilling our environmental commitments while expanding financially. We believe that besides economic performance, the most crucial factors that lead us to sustainable growth are our environmental and social responsibilities.





# AWARDS AND HIGHLIGHTS

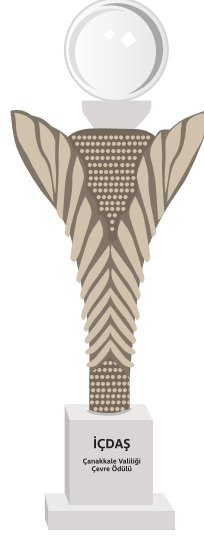
In addition to financial growth, fulfilling our social and environmental commitments is one of the results of our corporate culture at İÇDAŞ. In addition to our financial performance, we believe that fulfilling our environmental and social responsibilities is the most important factor that ensures sustainable growth.



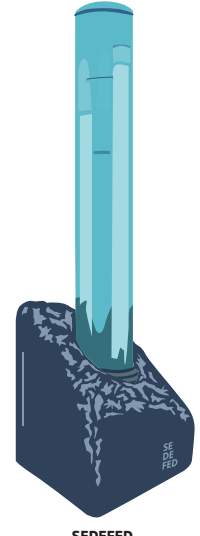
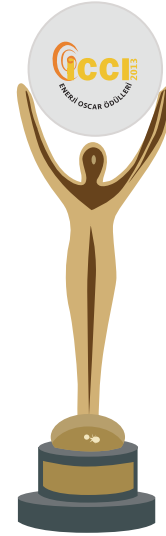
ŞAHABETTİN BİLGİSÜ  
ÇEVRE ÖDÜLÜ  
2013  
KOCAELİ SANAYİ ODASI



BÜYÜK ÖLÇEKLİ KURULUŞ  
SÜRDÜRÜLEBİLİR ÇEVRE DOSTU UYGULAMA  
BİRİNCİLİK ÖDÜLÜ  
2010  
İSTANBUL SANAYİ ODASI



İÇDAŞ  
Çevresel Yalıtılı  
Çevre Ödülü



SEDEFED  
Rekabet Ödülü



İÇDAŞ Çelik Enerji Tersane ve Ulaşım Sanayi A.Ş.



🚩 **Largest Exporter Award in All Products 2<sup>nd</sup> Place**

Steel Exporters Association



🚩 **9<sup>th</sup> Turkey's Largest 500 Industrial Companies Ranking (2018)**

➔ İstanbul Industrial Chamber



🚩 **Largest Exporter Award In Reinforcing Steel and Wire Rod 1<sup>st</sup> Place (2018)**

Turkish Steel Exporters Association



🚩 **Highest Increase in Exports Among Large Sized Companies 1<sup>st</sup> Place (2017)**

Turkish Steel Exporters Association

🚩 **Owner of the 6<sup>th</sup> largest private fleet in Turkey with 176 Carriages**



İçdaş Elektrik Enerjisi Üretim ve Yatırım A.Ş.

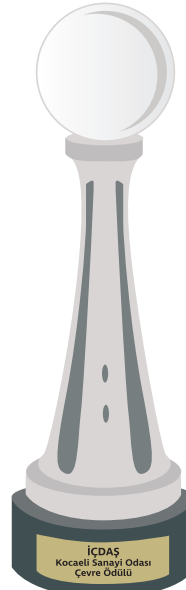


**60<sup>th</sup> place in Turkey's 500 Industrial Companies**

Ranking İstanbul Industrial Chamber



BÜYÜK ÖLÇEKLİ KURULUŞ  
SÜRDÜRÜLEBİLİR ÇEVRE DOSTU UYGULAMA  
BİRİNCİLİK ÖDÜLÜ FİNALİST  
2010  
İSTANBUL SANAYİ ODASI



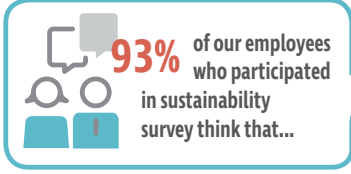
İÇDAŞ  
Kocaeli Sanayi Odası  
Çevre Ödülü



"TEMİZ TÜRKİYEM"  
EN TEMİZ SANAYİ TESİSİ  
BİRİNCİLİK ÖDÜLÜ  
2013  
T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI



# Sustainable Growth and Contributions to Economy



İÇDAŞ creates considerable amount of economic value for its stakeholders (employees, suppliers, local people, government institutions).

Today, competition focuses on factors such as continuity of production, low input costs and utilization of clean, eco - friendly technologies.

Parallel to developments around the world, we aim to expand by investing to sustain our market position with high quality products, to compete and protect ecological balance in order to integrate with the modern world. Our financial sustainability is crucial for our stakeholders that include our shareholders, employees, suppliers and our local neighbors.

The foundation of our environmental and social investments is based on our strong financial structure. We target those projects that provide employment opportunities, contribute to production and create value for our ecological environment, our culture and human life.

Today, İÇDAŞ is a leading steel, energy and ship producing company of approximately TRY 14.76 billion turnovers, which uses diversified green technologies as an employer, contractor, investor and innovative technological solutions provider. While İÇDAŞ brings in Turkey considerable amount of foreign exchange through exports each year, it employs 5 thousand people directly and another 5 thousand indirectly to create a family of 10 thousand people economically.

## Steel Production



We are the largest private sector steel investor in terms of capacity. Turkey is the 8th crude steel producer in the world. Approximately 9.81% of Turkey's crude steel production takes place in İÇDAŞ facilities. In 2018, we became the 2nd largest steel exporter in Turkey.

## Power Generation



In 2018, İÇDAŞ generated 4.25% of energy produced in Turkey with 9.49 billion kilowatt - hours in Bekirli and 2.64 billion kilowatt - hours in Değirmencik.

## Railway Transportation



İÇDAŞ is a private sector company whose railway fleet is the sixth largest one in Turkey, with its 176 railway carriages. Our transportation capacity on current railway infrastructure is 214 thousand tons a year and we carry steel scraps collected from many locations in Anatolia through railways. We switched our product and raw material transport activities to railway transportation in order to reduce our costs and to protect environment by means of relatively less emission than road carriage. To accommodate this target and utilize railway efficiently, we established steel centers at five locations (Ankara, Konya, Gölcük, Sakarya, Bursa) in Turkey. Revisions of 72 Eanoss type freight wagons out of 176 in our fleet were completed on 01.02.2018.

During the revision process, heavy maintenance of our wagons such as wheel sets, traction devices, brake systems and complete painting operations were carried out in accordance with international railway standards (UIC) and they were enabled to carry on load transportation.





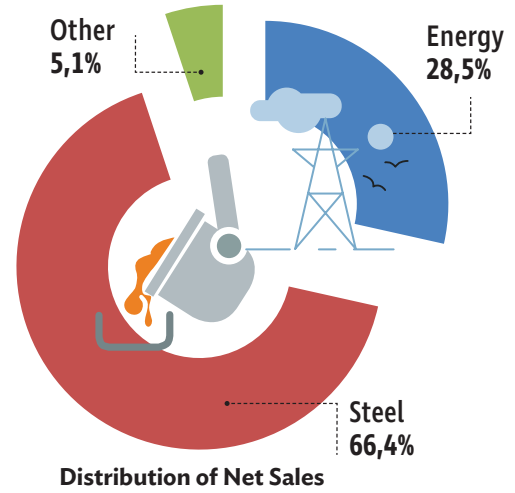
## Shipyard Activities and Marine Transportation

We create a considerable amount of economic value with our activities in our harbor that has a high docking and load-unload capacity. Train ferry construction is another part of our investment plan.

Our ultimate objective with this investment is to reach Bandırma Shipyard directly, shipping from factory to railway and therefore to prevent handling manipulation. Furthermore, direct export from Tekirdağ to Europe will be possible this way.



Distribution of Net Sales	
Energy	28,5%
Steel	66,4%
Other	5,1%



## Results and Gains



**Economic:** Measurement and monitoring became more systematic since logistics operations totally conform with management systems now. Our problem-solving processes gained speed, our productivity increased, and our costs are decreased.



**Social:** Elevation in occupational safety standards contributed to the safety and security of workplace.



**Environmental:** Checking environmental impacts frequently resulted in the reduction of environmental impacts caused by operations.



**Corporate:** Management system certificates received contributed to the corporate reputation of our company.



## Completed and Continuing Investments of 2018

Name of Investment	Location	Status	Total Budget	2017	2018
				Investment Amount	Investment Amount
●● Integrated Steel Production Facility	Değirmencik - Biga	Evaluations in progress.	\$ 800.000.000	\$ 120.000	-
✓ Rolling Mill 2 (Qualified Steel Rod)	Değirmencik - Biga	Works in 2018 are completed and commissioned.	-	\$ 10.440.523	₺145.301.520
●● Seed Bank	Değirmencik - Biga	Ongoing	-	\$ 112.390	₺2.490.692
●● Liquidated Natural Gas Storage and Gasification Facility	Biga / Çanakkale	Permission processes are ongoing. EIA and R&D projects are completed. Evaluations in progress.	€ 800.000.000	\$ 150.000	-
●● Cement Zero Waste and Clinker Facility	Biga-Bekirli ve Biga-Karahamzalar	Construction and R&D process is completed. Evaluations in progress.	\$ 250.000.000	\$ 100.000	-
✓ İÇDAŞ 29 Stainless Steel Chemical Tanker / 7.500 DWT	Değirmencik - Biga	Completed	€ 17.000.000	\$ 14.160.624	₺18.058.287
●● İÇDAŞ 5	Değirmencik - Biga	Ongoing	\$ 14.000.000	\$ 2.830.967	₺44.976.297
✓ Kara Yusuf 2	Değirmencik - Biga	Completed	€ 4.750.000	\$ 639.814	₺8.674.340
●● Değirmencik-2 Regular Ash Storage Field	Değirmencik - Biga	Ongoing	\$ 6.500.000	\$ 2.514.331	₺850.033
✓ Bekirli-2 Regular Ash Storage Field	Bekirli - Biga	Completed in 2017	\$ 6.500.000	\$ 1.310.526	₺1.621.824
✓ Dock Construction in the Port	Değirmencik - Biga	Completed	\$15.750.000	\$ 422.169	₺53.604.068
✓ E-crane Scrap Transfer Crane	Biga / Çanakkale	Completed	16.951.806 TL	16.822 TL	₺16.934.984
✓ Gotwald Harbor Crane	Biga / Çanakkale	Completed	€ 6.500.000	\$ 4.137.658	₺16.237.549
●● Aircraft Carrier Construction Pool	Biga / Çanakkale	Ongoing	₺195.000.000	\$ 253.733	₺58.625.326
●● Wire Rod Tempering Furnace	Biga / Çanakkale	2017 yılında inşaatına başlandı.	\$ 3.700.000	\$ 277.462	₺6.561.344
●● No.2 Steel Production Facility Qualified Steel Investment	Değirmencik - Biga	Ongoing	₺35.000.000		₺1.760.062
●● No.2 Steel Production Facility Continuous Casting Machine Road Supplement	Değirmencik - Biga	Ongoing	₺6.000.000		₺772.875
✓ Forklifts at Various Capacity	Değirmencik - Biga	Completed	₺6.907.860		₺6.907.860
●● Lime Plant	Değirmencik - Biga	Ongoing	₺31.803.444		₺7.326.804
✓ Machining Workshop and Equipment	Değirmencik - Biga	Completed	₺12.732.385		₺6.379.964
●● Process Water Cooling Plant	Değirmencik - Biga	Ongoing	₺15.000.000		₺11.704.145
✓ Freshwater Production from Seawater Plant	Değirmencik - Biga	Completed	₺9.545.747		₺9.545.747
●● SAP S/4 Hana Digital Transformation Project	İstanbul-Biga	Ongoing			₺3.199.963



# Local Economic Contributions

**T**otal direct investment amount of İÇDAŞ in Çanakkale region is over 5.6 billion US dollars so far where approximately 421.5 million TL of it was done in 2018.

The indirect impacts of these investments on the local community and economy are higher and for longer terms. Giving priority to local recruitment reinforces this impact.

Details of our social and environmental investments, education, sports and cultural support projects and indirect economic impacts are explained in 'Social Performance' section of this report.

## **Target of Producing Steel from Local Ores**

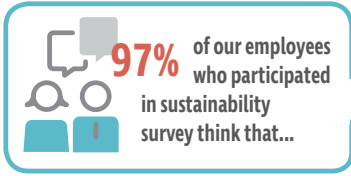
We have been working on more efficient production processes that will be alternatives to scraps because of the shrinkage in the world and Turkish steel sector. We analyze the economical convenience of local ores to make production with national resources in order to increase the quality of goods and reduce the production cost.

As an environmental investment, we continue our operations on generating electricity from waste heat that comes from high energy consuming processes of electric arc furnace and rolling mill reheating furnace.





# Energy Investments



İÇDAŞ should invest in renewable energy sources like solar, wind and hydroelectric power plants.



As it is for the rest of the world securing energy demand is critical for Turkey's sustainability where the import volume creates the largest portion of our country's foreign trade deficit as a result of dependency on foreign resources of energy by approximately 70%. Population rise, expansion in industrialization and acceleration in urbanization increase energy demand every day.

All these developments besides our need for uninterrupted, high quality energy to continue our seamless operations, increases our sensitivity for secure energy supply and to reduce Turkey's dependence on foreign supply. We continue to invest in coal - based, environment friendly power plants to reduce the dependency on natural gas.

## İÇDAŞ Biga WPP (Wind Power Plant) Project

On May 12<sup>th</sup>, 2011, we gained the right to build a 60 MW wind power plant (WPP) at Biga, Çanakkale by winning the tender of Turkish Electricity Transmission Company (TEİAŞ). We started construction in 2014 after Çanakkale Nature and Forest Directorate decided that Environment Impact Assessment report (EIA) was not necessary for this Project.

We started to operate the first 16 turbines in 2015. We added 7 new turbines of 3,2 MW each with a 100 million dollars investment in 2016. Our target is to generate 192,895,200 kWh energy. İÇDAŞ Biga WPP project is licensed to generate 210 million kWh annually. 71,983 tons of carbon emission reduction will be achieved with this production.

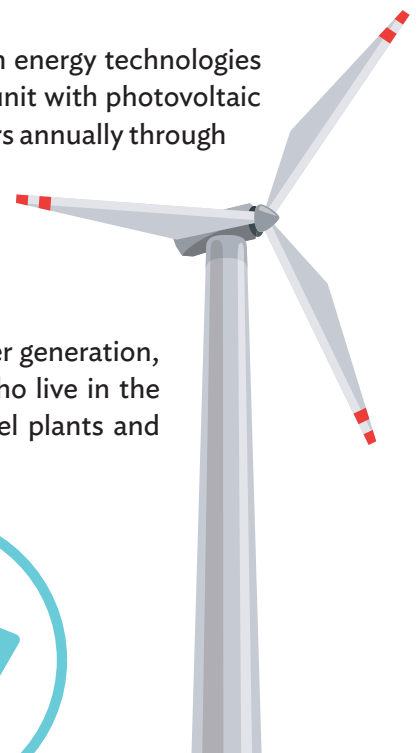
Through İÇDAŞ Biga WPP project, we aimed to preserve the ecological balance as well as diversify our energy production portfolio and start carbon trade. We completed the approval process of Biga WPP Gold Standard certification to take part in the Voluntary Carbon Market.

## İÇDAŞ Biga SPP (Solar Power Plant) Project

In order to generate electricity without creating carbon emission by using clean energy technologies at our plants, we covered the roof of our Biga Değirmencik Plant rolling mill 5 unit with photovoltaic panels in September-December 2017. We aim to save 123,5 thousand US dollars annually through this project in which we started investing approximately 2,5 million Turkish Liras.

We initiated the project with the plan to cover all roofs at or premises but bureaucratic and technical obstacles due to local transformer power rating led us to implement it with a narrowed down scope.

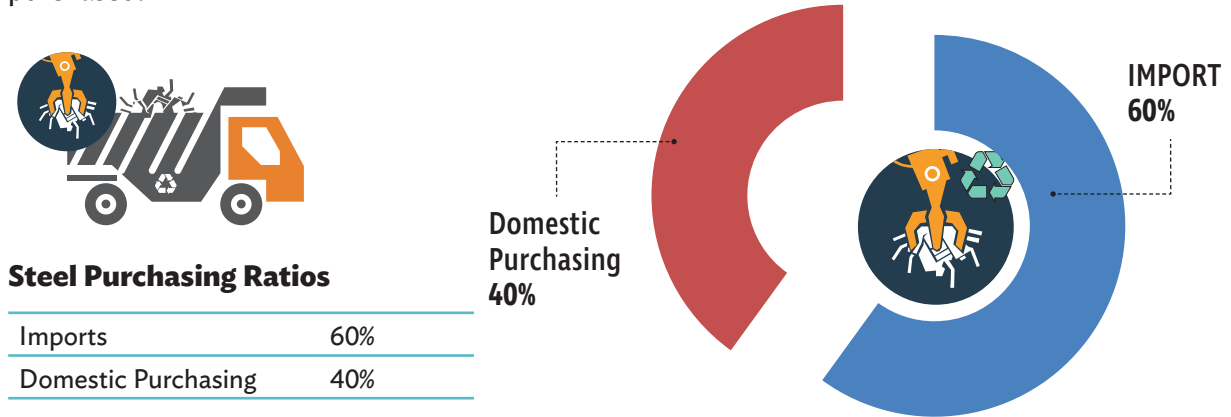
Because renewable energy resources are alternatives to fossil resources in power generation, our project will positively impact the nearby ecosystem and 50,000 people who live in the neighborhood of our plant. We intend to expand this practice to roofs of steel plants and shipyard when the transformer connection permits are received.



## Local Supply Practices

We supply our company needs, especially raw materials from all over the world and Turkey. When it comes to procurement, for İÇDAŞ, 'local' means 'within Turkey'. We defined our local supply policy and selection criteria in our supplier list designation and procurement procedure.

We first check if we can supply the procurement demand from local suppliers if the quality-price ratio is acceptable in our terms. Scraps and coal are usually imported where fuel, machinery and equipment are usually procured locally. Although the number of domestic suppliers make up of 92% of all suppliers, 40% of our supply expenditures is allocated to domestic suppliers because of the higher cost of goods purchased.



İÇDAŞ Supply Chain Structure	Domestic	Foreign
Total number of suppliers	3187	262
Locations of suppliers by region or country	<b>All Except Scraps:</b> Marmara: 2421 Aegean: 178 Other: 454 <b>Scraps :</b> Marmara: 104 Aegean: 8 Other: 22	Germany, USA, Austria, Belgium, Bulgaria, China, Colombia, Denmark, Morocco, France, South Africa, India, Netherlands, UK, Spain, Israel, , Switzerland, Italy, Japan, Kazakhstan, Poland, Romania, Russia (Saint Petersburg), Ukraine
Types of suppliers	Main producers, license owners, auditors, consultants, intermediaries, wholesalers, subcontractors, carriers, scrap sellers	Scrap, coal, pig, iron billet, replacement part suppliers and supervisory companies
Estimated value of payment done to suppliers	TRY 4.30 Billion	TRY 6.45 Billion

## Social Performance

At İÇDAŞ, the most important social impacts of our operations are health, safety and development of our employees, besides our responsibilities towards the local people living around our facilities. We run our steel and energy production operations with the target of zero accident rate.

İÇDAŞ's employees and the local public including their families, are the primary stakeholders of İÇDAŞ. We manage employee relations through our Human Resources Policy and we take into consideration the priorities of local residents which we name as our 'neighbors', when planning our social and environmental investments.

### HIGHLIGHTS





# Occupational Health and Safety

**82%** of our employees who participated in sustainability survey think that...

İÇDAŞ takes necessary measures sufficient to oversee and secure health and safety of its employees.

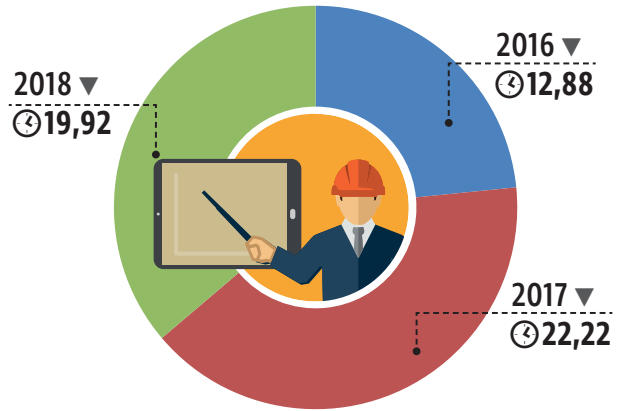
Steel industry is considered as “heavy” industry in primary metal industry. Constantly moving very heavy and enormous materials and machines from one place to another; being around and dealing with molten metal at 1,800 degrees centigrade, toxic and corrosive materials, scent, smoke and noise may create essential risks on health and safety.

At İÇDAŞ, employee health and safety is among our top strategic priorities. We care about the health and safety of our employees in accordance with our internal Occupational Health and Safety (OHS) Policy and OHS management system implementations. The details of our OHS Policy can be found in İÇDAŞ Management Policy Book.

We apply OHSAS 18001 – OHS Management System as part of our risk management strategies in order to comply with OHS regulations revised during the EU adaptation process. This system enables İÇDAŞ to make sound and consistent risk evaluations, reduce risk of accidents and increase overall performance.

In 2018, we provided 32,7 hours of OHS trainings with 95% increase from previous year, to our employees where the average was 19.92 hours per employee. The data about our OHS performance is located in ‘Social Performance Indicators’ section of our report.

OHS Trainings	Unit	2016	2017	2018
All Employees	Hours / Employee	12,88	22,22	19,92



## Radiation Safety

İÇDAŞ is a leading company in its industry due to the investments and measurement systems it undertakes in radiation safety. Our plants receive steel scraps from all over the world on a regular basis. We have a particular systematic control system to recycle steel scraps without incurring risks against the environment and employee safety.

We eliminate the reception of scrap from countries with high contamination risk of explosive materials, chemicals or radioactive waste. We also check and control each stage of the operation from the procurement to the reception and processing.

We import steel scraps only from the licensed scrap steel processing plants. İÇDAŞ Scrap Experts visit and approve the suppliers on a regular basis to control whether the plant is technically qualified for processing scraps. The scraps are embarked after radiation and chemical controls done and supervised by international supervisory bodies.

We have eight Permanent Radiation Measurement Devices: four at the harbor entrance and four at the land entrance. After the check at the entrance, the steel scraps are taken into the scrap store for another check by the experts.

In order to prevent problems that occur by human or equipment errors, steel scraps are checked once again against radiation after the melting process. De-dusting systems include radiation measurement device to detect radiation at this stage. These devices that are present at three of the de-dusting systems constantly monitor melting process.

The probability of failure to detect radiation up to this point is very low after all these control stages. Nonetheless, all steel products are checked once again before leaving the plant. All products are scanned by highly accurate Permanent Radiation Measurement Devices before leaving the plant.

### MESS Golden Glove Best Practice Awards



#### Implementations

- 1 Revision of cooling collectors in front of torch that provides additional cooling to melt shop continuous casting unit HCRT machines.
- 2 Scrapyard crane cable drum revision
- 3 Blue collar EBT cylinder revision
- 4 Blue collar lid hydraulic revision
- 5 Automation of melt shop fume extraction reverse air filtering system

#### Objectives

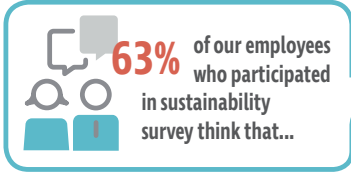
To reduce the operation time in areas with high work accident risk, to make improvements according to employee suggestions and shifting the maintenance - repair works to low risk areas, to prevent employees to work in dangerous areas with uncaptious, high, hot mobile equipment.

#### Results and Gains

We had no accidents in areas of revisions and improvements. We witnessed motivation increase among employees due to feeling of safety. We began to utilize time and workforce resources efficiently after revisions and system implementations. We saved time in stops during operation.



# Employee Engagement



The amount of training and programs İÇDAŞ provides for its employees are sufficient.



Our employees manpower are the most valuable asset of our company. Our employees are our primary stakeholders in terms of sustainability. We defined part of our mission about the employees as; ‘creating team work, fair attitude, open communication, personal safety and development opportunities by providing safe and effective work environment’.

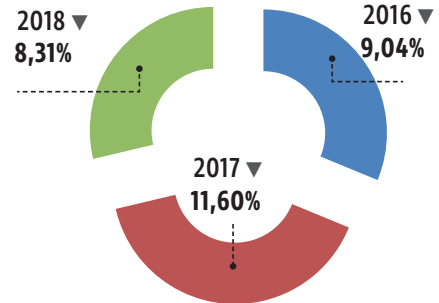
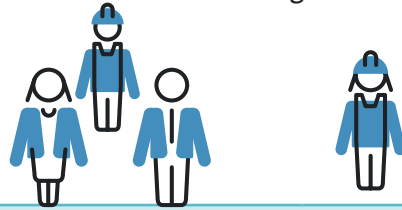
The know - how, competence, experience and diligence of employees are the leading factors that enable İÇDAŞ to become a major international player concerning the production, capacity and technology it owns today. We aim to improve our operations together with our happy and engaged employees by providing them with personal development opportunities and health and security at workplace.

Fringe benefits to full time employees are; fuel, marriage, maternity, death, child, military service, education, lunch, transportation, shoes, natural disaster, food and cleaning supplies aids, bonus, holiday and annual paid leave.

Services and fringe benefits applied to all employees are; paid sick leave and private medical support clear of charges, zero interest loan once a year, right to receive advance credit, shuttle service for workers, medical center, company dwelling and insurance against accidents. All employees’ children can attend İÇDAŞ Sports Club activities free of charge.

## Employee Turnover

Employee Turnover	Unit	2016	2017	2018
	Ratio	9,04%	11,60%	8,31%



## İÇDAŞ Suggestion System (İÇÖS)

The most significant communication channel from which the Board of Directors receives the ideas and suggestions of employees is İÇÖS Suggestion System. In 2008, İÇDAŞ Board of Directors initiated İÇÖS to make use of employee suggestions and ideas and to develop the employee – management communication. We announced the purpose, scope, activities of the system and the benefits it will introduce both to the employees and the company.

Employees write down efficiency, OHS, environment, quality improvement suggestions on İÇÖS forms. They then put them in the İÇÖS suggestion boxes at the staff canteens.

These suggestions are collected regularly and discussed at the İÇÖS work unit meetings. Those suggestions applicable for implementation are submitted to İÇÖS executive committee. The committee approves suitable suggestions and starts the preparations for deployment.

A 20 people committee of a work unit and an executive council executes İÇÖS. 850 suggestions are received since the beginning of the system until the end of 2018 and 309 of these are realized, which are mainly aimed at H&S improvements and labor efficiency. We also achieved cost efficiency in the production processes.



## Local Employment

We prefer to recruit local people for our Değirmencik Integrated Plant. This approach facilitates the orientation process among employees and increases the quality of life in the region. Today, direct employment from the locals is over four thousand people at İÇDAŞ facilities.

This number expands to six thousand when we consider all the services purchased in the region.

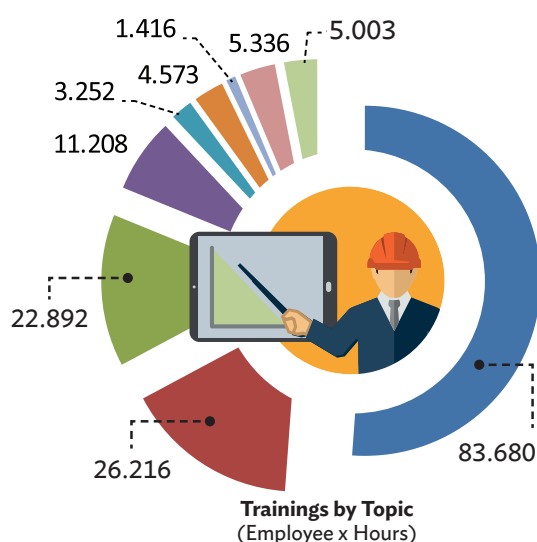
Local Employment at Çanakkale	Status	2015	2016	2017	2018
Top Managers	Local	21	20	21	20
		36%	34%	40%	38%
	Other	37	38	32	32
		64%	66%	60%	62%
Değirmencik Facility	Local	2.851	2.913	3.070	3426
		83%	82%	76%	77%
	Other	583	657	954	1050
		17%	18%	24%	23%
Bekirli Facility	Local	443	436	584	617
		72%	71%	76%	81%
	Other	171	181	182	141
		28%	29%	24%	19%
Total	Local	3.315	3.369	3.675	4063
		81%	79%	76%	77%
	Other	791	876	1.168	1223
		19%	21%	24%	23%

## Training and Development

In 2018, we provided İÇDAŞ staff with 163 thousand 576 hours of training on 9 main topics including health, security and personal development.

Average training hours by employee type and other training information is presented in ‘Social Performance Indicators’ section of our report.

Trainings by Topic	Hours
Health and Safety	83.680
Orientation	26.216
Vocational	22.892
Single Spot	11.208
Information Security	3.252
Quality	4.573
Personal Development	1.416
Energy Management Systems	5.336
Environmental and other	5003
<b>Total</b>	<b>163.576</b>



# Equal Opportunities and Human Rights



We implement equal job - equal pay principle as stated in our İÇDAŞ Human Resources Policy. Starting from the first day of employment, we try to create equal opportunities for all employees regardless of their gender. Salaries are increased each year according to employee performance.

Female workforce consists 2.7% of our total group workforce. Due to the nature of the steel and energy industries female workforce ratio is very low in Turkey likewise the rest of the world.

We don't have operations with significant risks of employing child labor or forced labor. Our principles on human rights and working conditions for both İÇDAŞ and our suppliers are described in İÇDAŞ Management Policy Book.

The percentage of union labor is high due to the facts of the industry being large scale and labor intensive. Meetings held with labor and union representatives are effective platforms to include employees in the decision - making processes.

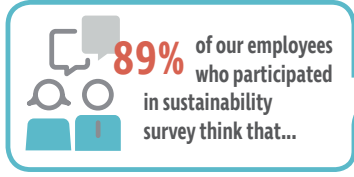
Employees Covered by Collective Bargaining Agreement	2016	2017	2018
Number	2.231	2.648	2999
Ratio %	47,1	49,3	51,5

(GRI 102-41)





# Local Community Engagement



İÇDAŞ is perceived by the local community as a company that respects the rights of local community, cares about local health and safety, and produces positive outcomes by its activities.



As İÇDAŞ, we always intend to protect the rights, benefits and values of local community since the first day of our investments. We support this intention by recruiting most of our executives among local residents. In all our investments and corporate responsibility efforts, our priority is to reach the local people and we respect the culture, traditions and history of our region.

## Facility Visits

We began organizing facility visits in 2010 during the months from March to October when we noticed that public did not have enough information about our production and environmental activities, and that there were many requests from the public to make site visits and explore our plants. So İÇDAŞ Media and Public Relations Department started to organize visits regularly.

Our aim is to inform all external stakeholders about İÇDAŞ environment and water management system, social responsibility activities, work environment and innovative production technology via direct observation method. We also intend to create a positive perception among the various social segments of local community and to maintain and increase the solidarity between İÇDAŞ and the local people.

In the last eight years, we hosted 9,213 guests including students from primary schools to universities in Çanakkale region, members of craftsmen chambers, NGO and association members, local and central government representatives, ministers and media representatives. 47 people visited our facilities in 2018, 90% of whom were students from different local schools and university, while 10% were NGO representatives.

We provide information about site visits to media in order to expand this practice to the society. Our aim is to reach 15 thousand visitors in 10 years and create a recognized corporate perception through direct observation in the 10% of local community. We plan to continue this activity with four to six visitor groups monthly for every eight months in the next five years.

## Results and Gains



**Corporate:** Having received an intensive appreciation from the external stakeholders, the activity has had a positive impact on our employees' engagement and work esteem. İÇDAŞ, thanks to its sharing approach, established a great sense of security in its stakeholders while its corporate performance and the value of awards it has won in many fields are better appreciated by public.



**Environmental:** The most important gain of this activity is its contribution to the public perception of our plants' sensitivities towards environmental values. Every visitor who has witnessed this sensitivity became an ambassador of our company.



**Economic:** In the long term, this activity will help us recruit sufficient number of skilled labor in the region.



**Social:** The activity helped to form strong relations between the external stakeholders and the plant managers. It also enabled our internal stakeholders to take part in activities organized by the external stakeholders. We also received requests from stakeholders outside our region.



# Social Investments

**89%** of our employees who participated in sustainability survey think that...

İÇDAŞ's social development investments towards the local people around its premises are sufficient.



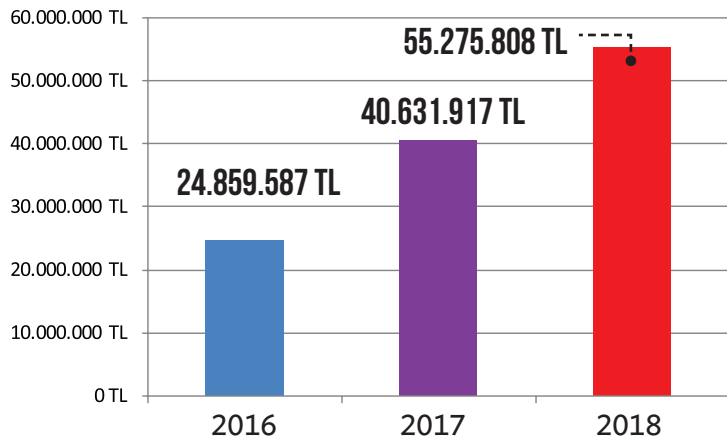
Since the day it was established, İÇDAŞ have been working on raising the quality of living by providing educational opportunities, improving social life and additionally meeting social needs. We make our social investments in education, sports and culture with our motto 'Healthy - Educated - Social Youth = Strong Society'.

Aiming a society that is educated, healthy, energetic, prosperous and confident due to its thousands of years of cultural heritage, İÇDAŞ continues its training - sports investments that embrace the youth in the region and supports on conservation of cultural heritage embracing the whole community, with a holistic approach.

We have allocated about TRY 200 million of investments between 2000 - 2017. Our social investments accounted for TRY 55 million in 2018 with an increase of 1.4 fold than the previous year's. Our social and environmental infrastructure supports consist of monetary and material donations for building road, mosque, park, transmission lines, etc.

Our Social Support in Local Community and Economy	2016	2017	2018
Social and Environmental Infrastructure	21.884.441 TL	30.098.585 TL	29.384.314
Sport	193.777 TL	746.206 TL	1.009.165
Education	808.911 TL	8.376.634 TL	20.094.043
Cultural	1.972.458 TL	1.410.492 TL	4.788.286
<b>Total</b>	<b>24.859.587 TL</b>	<b>40.631.917 TL</b>	<b>55.275.808 TL</b>

Our Social Support in Local Community and Economy



## Supporting Education



The idea behind our educational investments is the deficiency of regional qualified workforce. 36% of our investments fall under educational category, which includes school and dormitory construction and infrastructural support, student grants, adult education courses and similar projects. We provided 251 students, where 44% are female, with TRY 582 thousand grants in 2018. Hence, we have provided TRY 6,4 million grants in total to 3,561 students in the last ten years.

### Supporting Sports

We intend to encourage the regional youth, which includes our employees and their children as well, to develop as healthy, confident, sportive, competitive individuals with team spirit. With this notion, besides establishing İÇDAŞ Sports Club, we support all kinds of sports and sporting clubs in our region.

### Supporting Cultural Development

In order to reveal Turkey's universal values and to introduce our historic and cultural wealth to the world, we support Parion, Smintheion, Troy, Mydos, Alexandria Troas and Assos excavations, which help develop the History of Anatolian Culture.

Activity	Location (Çanakkale)	Related Stakeholder	Type	2018 Budget (TRY)
Science High School 2018 budget	Biga	Administration of National Education	Education	4.410.735,19
Lapseki MTAL Maintenance and Repair Costs	Biga	Administration of National Education	Education	13.939,00
Lapseki Vocational High Schools Maintenance and Repair Costs	Çanakkale	Administration of National Education	Education	186.061,00
İÇDAŞ Congress Center	Çanakkale	ÇOMÜ	Education	20.000,00
İÇDAŞ Kindergarten Maintenance and Repair Works	Biga	Administration of National Education	Education	10.202,54
Contribution to GMKA Biga Vocational High School	Biga	Çanakkale Governorship	Education	38.330,25
Tacettin Aslan Vocational and Technical Anatolian High School	Çanakkale	Administration of National Education	Education	14.000.000,00
Educational Associations Donations	Genel	Administration of National Education	Education	6.775,00
Student Donations	Çanakkale	Administration of National Education	Education	704.000,00
Little Archeologists Project	Biga	Ministry of Culture and Tourism	Education	704.000,00
Parion Excavations	Bekirli	Ministry of Culture and Tourism	Culture	573.619,62
Assos Excavations	Ayvacık	Ministry of Culture and Tourism	Culture	446.046,45
Troy Excavations	Tevfikiye	Ministry of Culture and Tourism	Culture	2.474.728,14
Apollon Excavations	Gürpınar	Ministry of Culture and Tourism	Culture	228.580,95
Alexandria Troas Excavations	Ezine	Ministry of Culture and Tourism	Culture	281.804,27
Maydos Excavations	Eceabat	Çanakkale Governorship	Culture	108.756,18
International Propontis and Peripheral Cultures Symposium	Biga	Çanakkale Governorship	Culture	96.050,00

Activity	Location (Çanakkale)	Related Stakeholder	Type	2018 Budget (TRY)
2018 Year of Troya Anadolu Ateşi Show Sponsorship	Çanakkale	Çanakkale Governorship	Culture	150.000,00
Çanakkale Governorship Kadem Project	Çanakkale	Çanakkale Governorship	Culture	81.450,00
Cabotage Day events	Merkez	Harbor Master's Office	Culture	17.250,00
Mehmet Akif Ersoy Documentary	Çanakkale	Çanakkale Governorship	Culture	300.000,00
İstanbul Bineal Sponsorship	İstanbul	İstanbul Governorship	Culture	30.000,00
Dinner at Tacettin Aslan Mosque	Merkez	Çanakkale Governorship	Social and Environmental Infrastructure	180.000,00
Ramadan iftar and sahur dinners	Merkez	Çanakkale Governorship	Social and Environmental Infrastructure	120.001,00
Ramazan Supplies Aid	Çanakkale	Çanakkale Governorship	Social and Environmental Infrastructure	261.616,00
İÇDAŞ Ulu Mosque Constructions	Çanakkale	ÇOMÜ	Social and Environmental Infrastructure	1.037.300,00
Tacettin Aslan Mosque Repair	Çanakkale	Çanakkale Governorship	Social and Environmental Infrastructure	97.367,00
Provision of supplies for Biga Directorate of Forestry	Biga	General Directorate of Forestry	Social and Environmental Infrastructure	13.555,00
Şahmelek Picnic Area	Biga	General Directorate of Forestry	Social and Environmental Infrastructure	2.629.323,00
Seed Bank and Rehabilitation Center	Biga	Provincial Directorate of Food, Agriculture and Livestock	Social and Environmental Infrastructure	2.889.000,00
Turmepa Sealovers Project Sponsorship	Çanakkale Boğaz İlçeleri	Çanakkale Governorship	Social and Environmental Infrastructure	5.000,00
Donation to Red Cross	Çanakkale	Çanakkale Governorship	Social and Environmental Infrastructure	100.000,00
Support to Gendermarie and Security Forces (Maintenance and Repair etc.)	Biga	Çanakkale Governorship	Social and Environmental Infrastructure	184.340,67
Donation to TSK Mehmetçik Foundation	Genel	Çanakkale Governorship	Social and Environmental Infrastructure	100.000,00
Supplies Aid to Syrian Families	Biga	Çanakkale Governorship	Social and Environmental Infrastructure	66.264,12
Aids to muhktar' (firewood, ağrega, maintenance and repair etc.)	Çanakkale	Çanakkale Governorship	Social and Environmental Infrastructure	12.814,00
Kulüpler ve Sportif Sponsorluklar (İçdaş Spor Kulübü Dahil)	Genel	Çanakkale Governorship	Sports	559.164,87
2018 TROYA Yılı Uluslararası Barbaros Cup Yelken Yarışları	Çanakkale	Çanakkale Governorship	Sports	450.000,00

### Employment Opportunity without Military Obligation from İÇDAŞ to Graduates

We set forth the emphasis we exert in vocational schools by creating job opportunities. We particularly prioritize graduates of İÇDAŞ Biga Vocational Technical High School for employment without precondition of completed national service.

A protocol to provide qualified workforce in metal industry was signed among İÇDAŞ Biga Vocational Technical High School and Turkish Employers Association of Metal Industries Education Foundation (MEV). Within this scope, graduates from İÇDAŞ Biga Vocational Technical High School metal

industry departments such as metal, electric- electronic and machine technology, are employed at İÇDAŞ Çelik Enerji Tersane ve Ulaşım San. A.Ş. without precondition of completed national service.

### Tutoring of İÇDAŞ Employees at Çanakkale Onsekiz Mart University and Biga Vocational School

We had problems recruiting the regional vocational school graduates since these schools were established overlooking the emerging industries and investments at the region. Private sector also had problems recruiting people with the right skills.

At the end of 2011 - 2012 term, İÇDAŞ Head Office and Çanakkale Onsekiz Mart University Management agreed to open 'Electricity Generation, Transmission and Distribution' and 'Metallurgy' classes within Biga Vocational School. Starting from the next education term both programs filled their quotas.

A council formed by İÇDAŞ and Biga Vocational School staff to make current lessons more practical conforming real - world practices. These lessons began in 2013 - 2014 term. A group of 12 successful engineers who are managers, chiefs and assistant chiefs at İÇDAŞ teach 11 different occupational lessons. Sometimes practical lessons take place in İÇDAŞ facilities. In 2017, 20 students attended the branch classes. In 2018, due to the fact that no new students were admitted to the department at Biga Vocational High School, 2 of our engineers participated in the branch courses for 20 students.

As İÇDAŞ, being the only large - scale heavy industry enterprise in and around Çanakkale, we prepare lesson contents according to iron & steel and power industry processes. We also provide comprehensive education in working under heavy industry conditions, quality control, occupational safety and environment.

### Number of Students and Amounts of Grants

Year		2014	2015	2016	2017	2018
Vocational High Schools	Female	16	11	15	17	8
	Male	10	11	16	15	12
	<b>Total</b>	<b>26</b>	<b>22</b>	<b>31</b>	<b>32</b>	<b>20</b>
University	Female	150	145	152	157	87
	Male	194	186	182	193	118
	<b>Total</b>	<b>344</b>	<b>331</b>	<b>334</b>	<b>350</b>	<b>205</b>
Other	Female	28	42	29	27	15
	Male	40	44	45	29	11
	<b>Total</b>	<b>68</b>	<b>86</b>	<b>56</b>	<b>56</b>	<b>26</b>
<b>Total Number of Students</b>		<b>438</b>	<b>439</b>	<b>439</b>	<b>438</b>	<b>251</b>
<b>Total Amount of Grants</b>		<b>865.980 TL</b>	<b>888.120 TL</b>	<b>884.727 TL</b>	<b>793.264 TL</b>	<b>528.260 TL</b>

### Tacettin Aslan Vocational and Technical Anatolian High School Campus

"Tacettin Aslan Vocational and Technical Anatolian High School Yapım Construction Protocol" was signed on 24.01.2018 by Governor Orhan TAVLI, Yılmaz Aslan, Chairman of the Board of Directors of Tacettin Aslan Group Companies and Osman Özkan, Provincial Director of Education.

Within the construction area of 16.412 m<sup>2</sup>; the high school building has a capacity of 576 students with 24 classrooms. There will be a Physics Laboratory , a Chemistry Laboratory and a Biology Laboratory for 30 people each. There will also be a conference hall for 190 people and a library built on an area of 232m<sup>2</sup>. In addition to the High School Building, a total of 2 workshops, Workshop 1 and Workshop 2, will be established. Workshops; There will be 1 Computer Laboratory, 1 Technology Class, 1 CNC workshop and 1 Basic Manufacturing Workshop.

The common areas to be located in the campus consist of 1 dining hall with a capacity of 376 students and service and kitchen sections. There will be 1 indoor sports hall with a capacity of 270 spectators, and 3 outdoor tennis, volleyball and basketball fields, each on an area of 575 m2.

In our Dormitory Project, A block (Girl Section) will have 60 rooms, 15 rooms of which are for 4 people, B block (Male section) will have 132 rooms, 33 rooms of which are for 4 people.

Construction was started on 01.06.2018 and by the end of 2018, 90% of the concrete works have been completed. In September 2019, all construction works, except landscaping works, are expected to be completed and delivered.

## Results and Gains



**Corporate:** We believe that this practice will contribute to create a more competitive and effective corporate structure throughout the organization by recruiting expert skilled personnel.



**Environmental:** We think that plants run by skilled expert employees will be more effective in protecting the environmental values.



**Economical:** As the program is designed to include many implementations and practical information, we believe the students will adapt their jobs promptly and have higher work efficiency levels.



**Social:** We expect that the practice will help students to have an education experience where they can confidently look ahead.



Tacettin Aslan Vocational and Technical Anatolian High School Campus





# İÇDAŞ Sports Club

In 2004, we established a Sailing School at Karabiga in Çanakkale, which has the second longest coastline in Turkey, with the aim to provide opportunities to mass community to do water sports like swimming and sailing, free of charge and under universal standards.

In 2008, we initiated sponsorship support in swimming and established Çanakkale Sailing School in 2010. We consolidated all sportive activities under the umbrella of İÇDAŞ Sports Club in 2011. In 2013, we added the windsurfing activity to our current training activities of sail and swimming. We started chess and basketball branches in 2014.

We set the priority target of the project as supporting the youth of the region to help them raise as healthy, competitive, sportive people with high self - esteem and team spirit. By this means, we intend to reinforce our corporate image, increase our brand awareness and contribute to the development of tourism and economy of the region.

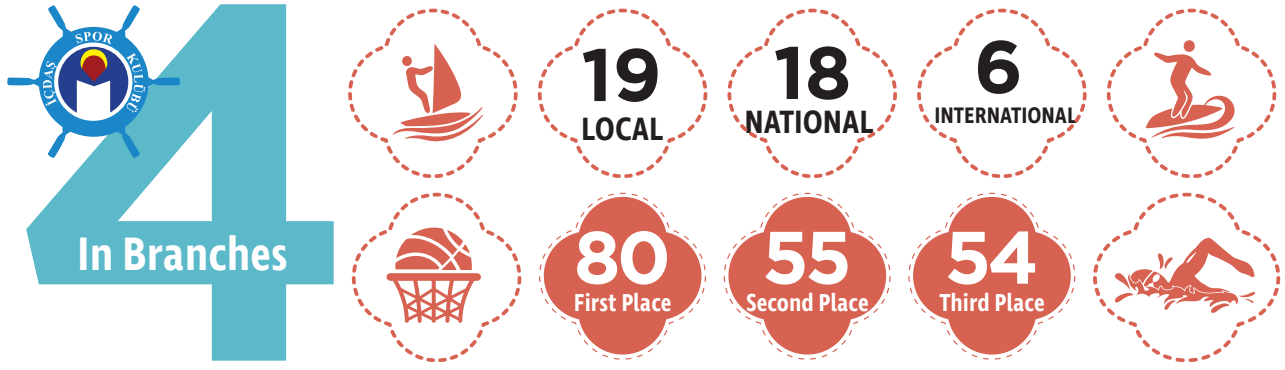
We received assistance from Turkish Sailing Association, Turkish Swimming Association, Çanakkale Youth and Sports Provincial Directorate, Çanakkale Sailing Provincial Representative Office, Çanakkale Swimming Provincial Representative Office, Çanakkale Governor's Office, Biga District Manager's Office, Çanakkale Municipality and Karabiga Municipality on designating areas for sports activities, regional and international race organizations and logistics matters. Every year, we scan all primary schools to earn swimming discipline talented high potential children in the city with the cooperation of Youth and Sports Provincial Directorate and the National Education Directorate.

At İÇDAŞ Sports Club with a world-class infrastructure, we have a total of 426 students of which 202 are licensed athletes.

		Number of Students		
	Branches	Licensed	Amateur*	Total
1	Sailing - Wind Surf	59	69	128
2	Swimming	60	108	168
3	Basketball	62	0	62
4	Chess	18	27	45
5	Archery	3	20	23
	<b>Total</b>	<b>202</b>	<b>224</b>	<b>426</b>



## Successes Crowned on the National Victory Day



### İÇDAŞ Sports Club 2018 Achievements

Branches	Awards	Competitions
Swimming	<b>21</b> Gold medals <b>18</b> Silver medals <b>14</b> Bronze medals	<b>4</b> Local <b>10</b> National <b>1</b> International
Sailing	<b>32</b> Gold medals <b>21</b> Silver medals <b>27</b> Bronze medals	<b>7</b> Local <b>2</b> National <b>2</b> International
Surf	<b>23</b> Gold medals <b>16</b> Silver medals <b>12</b> Bronze medals	<b>5</b> Local <b>3</b> National <b>3</b> International
Basketball	<b>4</b> Gold medals <b>1</b> Bronze medals	<b>3</b> Local <b>3</b> National

### Results and Gains



**Corporate:** İÇDAŞ Sports Club is the first institution that comes to mind about sailing and swimming in our region. We are proud of all our sports people because of their sportive lives, team spirit and successful results in competitions.



**Economical:** As Çanakkale's name rose to prominence in sailing, swimming and windsurfing, it started becoming a city of choice in sports tourism. Today, talented young swimmers settle in Çanakkale in order to continue their studies within İÇDAŞ Sports Club. The success achieved under such disciplines and the rapid developments in the sports infrastructure of the city, resulted in many national and international tournaments to be organized at the region.

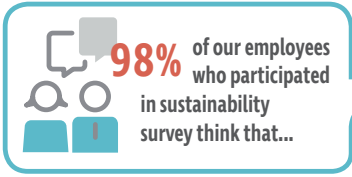


**Social:** Thousands of young people are introduced to sailing and swimming at İÇDAŞ Sports Club. Some of our students were selected for the national team and represented our country in the international events. While all the coastal cities in our region host sailing tournaments, competitions and shows, our sports people started to participate in domestic and international competitions and come home with significant successes. Accomplishments increased the self-esteem of the children and gave way to bigger successes.





# Sponsorship for Culture and History



İÇDAŞ's sponsorship support to excavations in the region is very effective to enhance the reputation of İÇDAŞ and is also a source of proud for the employees.



## İÇDAŞ's Sponsorship Support to our Journey of Culture and History

**T**roas Region, one of the routes Neolithic Era peoples of Asia Minor took in migration to European world, corresponds to Biga Peninsula geographically where there's Edremit Bay in the south, Marmara Sea in the north, and Aegean Sea in the west. As İÇDAŞ, we protect our cultural heritage and shed a light in history by undertaking the main sponsorship of archeological excavatons that continueinthisregionwherehistorical roots go back to 7000 BC.







# Environmental Performance

We manage all our operations and investments within the framework of our environmental policy and with the objective of sustainable growth through energy efficiency, environmental pollution prevention, waste reduction, emissions control and responsible consumption of natural resources.

In both our steel facilities and power plants, we have been making our investments to protect environment and human health in all our production processes, from selecting raw materials to the shipment of our products to the clients.

## **Artificial Aggregate Facility Investment and Project to Use Steel Slag on Road Construction**

İÇDAŞ is the first and only steel company that produces artificial aggregates from arc slag complying with EU standards in Turkey. As steel slag is a type of waste that is disposed by landfilling and with the aim to avoid this environmental pollution, İÇDAŞ arc furnace slag is processed into artificial aggregates that comply with the EU Certificate of Conformity (CE Certificate) after being processed in our artificial aggregate facility.

The aim of this project run by Turkish Steel Producers Association (TÇÜD) members, İstanbul Technical University (İTÜ) and General Directorate of Highways (KGM) with a 4.6 million USD budget, is to add the use of steel slag to the technical specifications of KGM and to make it mandatory. TÇÜD members are financing the work.

Within this process, İTÜ continued all scientific works, analyzed the technical suitability of steel slag in its labs and prepared various reports. KGM confirmed the results in its laboratories and launched the technical specifications in 2017.

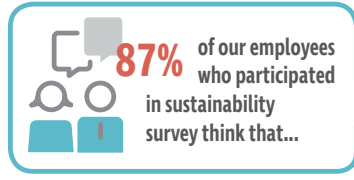
Artificial aggregate will be included in the technical specification of KGM and will be used in road construction as side product in 2018. This project provides a permanent and effective solution for the most significant waste problem of our country's largest industrial companies.

In 2018, a new study was initiated with various universities under the coordination of TÇÜD so that artificial aggregates produced from slag can be used in marine fillings, railway constructions and agriculture.





# Environmental Management



İÇDAŞ is a company that protects environment and natural resources and prevents environmental pollution in the region it operates.



**D**eğirmencik is the largest steel facility with arc furnace in our country. We have been recycling thousands of tons of steel scraps by melting them using the most up - to - date technologies and turning it into steel products everyday. We control scraps in detail in each stage, from selecting raw and auxiliary materials to receiving it in the facility and processing it. (Information about Radiation Safety Management is located at 'Occupational Health and Safety' section of our report.)

We transport our raw materials by marine transport and railway with the purpose of keeping carbon emissions lower per unit produced. Our manufacturing technology and all our investments are in compliance with European Union's publication of Best Available Techniques Reference Documents. We use the cleanest and the most environment friendly manufacturing techniques in the world and constantly improve them.

We comply with ISO 50001 Energy Management System principles in practices we undertake for energy saving and efficient use of natural sources. We manage our impacts in steel facilities, power plants, lime facility, shipyard and harbor with ISO 14001 Environment Management System.

In 2018, our total operational costs and investments regarding environmental protection was over TRY 311 million where approximately TRY 265.5 million was used at Değirmencik and the rest in Bekirli facility.







# Waste Management

**85%** of our employees who participated in sustainability survey think that...



İÇDAŞ's waste management implementations including waste water, and environmental pollution prevention practices are sufficient.



We regularly analyze waste in our facilities; monitor metal ratios on slag and stack dust and keep records. Every year, we make improvements after comparing per - unit waste we produce with the norms of the EU Best Available Techniques Reference Document.

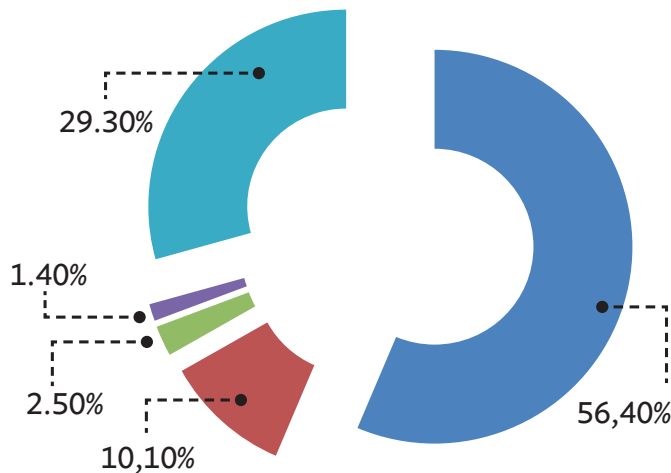
The most important topic in waste management is the process waste. The process wastes in our plant are; melt shop slag, dust, rolling mill scales and power plant ashes. Waste cooking oil, scrap tires, packaging waste and organic waste are other types of waste from our facility.

Our primary goal in waste management is to recycle waste. We comply with the regulations and collect all waste separately, including the ones from ships that call at our port, and we either send them to be accredited recycling facilities or dispose of them. In 2018 at our Değirmencik Plant, we recovered 74% of our waste and disposed 26% by methods in line with law.

Our Değirmencik Plant is the largest recycling facility in Turkey in terms of capacity since we recycle over 15 thousand tons of steel scraps a day.

In 2018 at our Bekirli Plant, we recovered 62% of our waste and disposed 38% by methods in line with law.

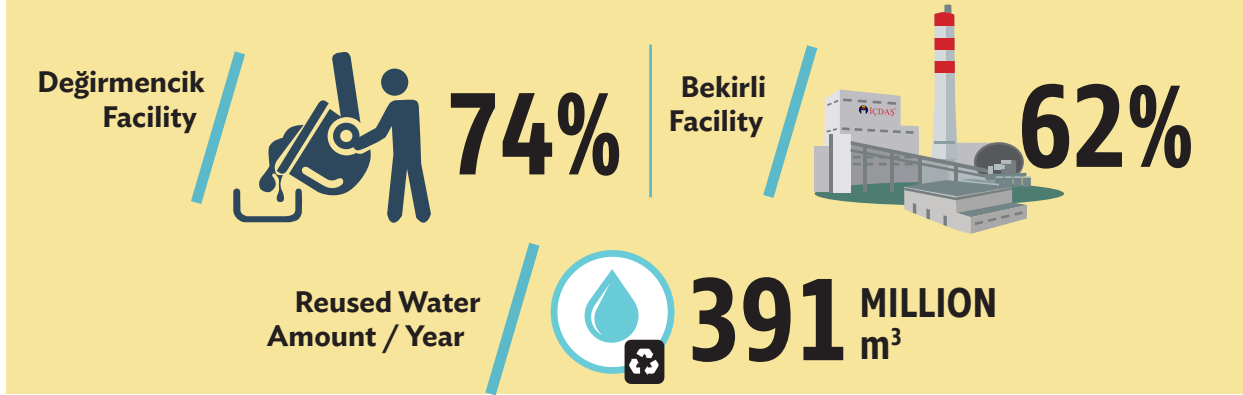
Operational Costs of Environmental Protection Investments	2018	
Emissions and Climate Protection	TRY 175.491.934	%56,4
Waste Water Management	TRY 32.425.944	%10,4
Preservation of Underground Water and Soil	TRY 7.633.915	%2,5
Waste Management	TRY 4.246.664	%1,4
Biodiversity, Radiation Safety, Clean Energy and others	TRY 91.214.386	%29,3
<b>Total</b>	<b>TRY 311.012.843</b>	<b>%100</b>



**Operational Costs of Environmental Protection Investments**

## HIGHLIGHTS

### Recycled Waste Rate



### Results and Gains



**Corporate:** İÇDAŞ is playing an important role in a project which creates value for the Turkish economy and is enhancing its reputation.



**Environmental:** Natural lands will not be destroyed, and quarry destruction of road constructions will also be decreased. Both waste storages and use of natural aggregates will decrease.



**Economical:** Slag will be used instead of natural aggregate and creation of slag landfills will be prevented which will increase the cost of storing and make slag a commodity. The cost of labor and machines to produce natural aggregates will be decreased.



**Social:** Prevention of environmental pollution will be positive for the communities.





# Water Management

**88%** of our employees who participated in sustainability survey think that...

İÇDAŞ's practices on sustainability of water resources management are sufficient.

We have been managing water issue on our İÇDAŞ Değirmencik Integrated Plant under 'Sustainable Water Management Project' with a holistic approach since 2007

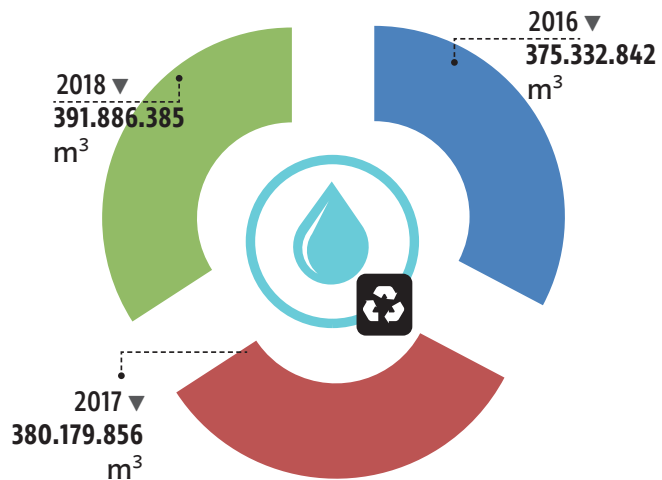
In 2012, Ministry of Development, United Nations Development Program (UNDP) and Turkish Business Council of Sustainable Development (TBCSD) have chosen our 'Sustainable Water Management Project' is one of 'Turkey's 24 Best Practices in Sustainable Development and Green Economy'. We enjoyed the pride of representing our country at Rio+20 Conference in Brazil.

No fresh water source is affected by our consumption, since we withdraw the water we need for all our processes and for utility purposes from the sea. We meet our water requirement of steel facilities by 99% and of power plants by 98% from the sea.

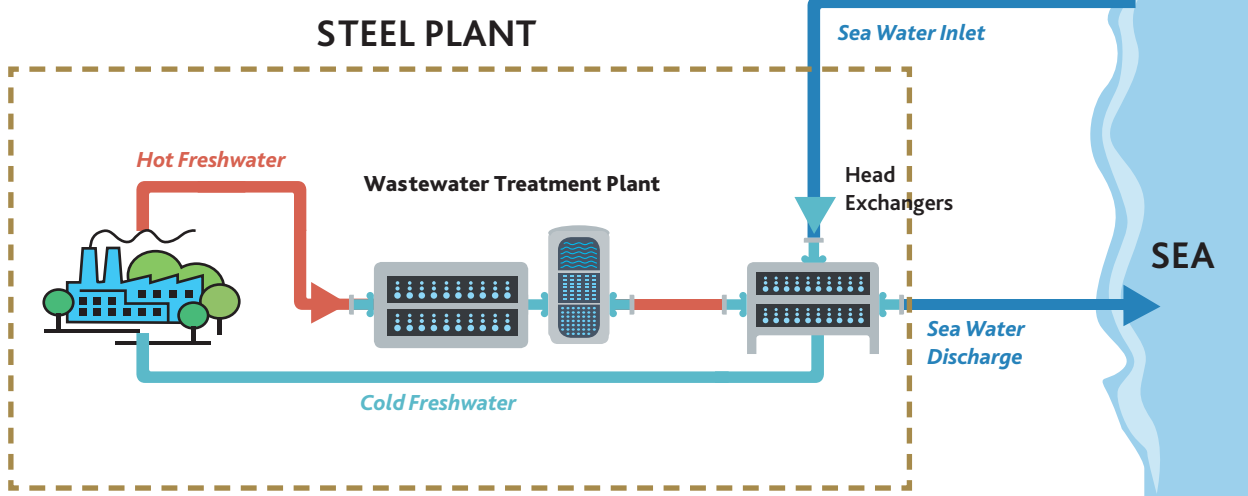
We reused the water that we withdrawn from sea approximately 60 times in 2018

### Water Recovered and Reused

2016	375.332.842 m <sup>3</sup>
2017	380.179.856 m <sup>3</sup>
2018	391.886.385 m <sup>3</sup>



### Cooling Water Flow Chart

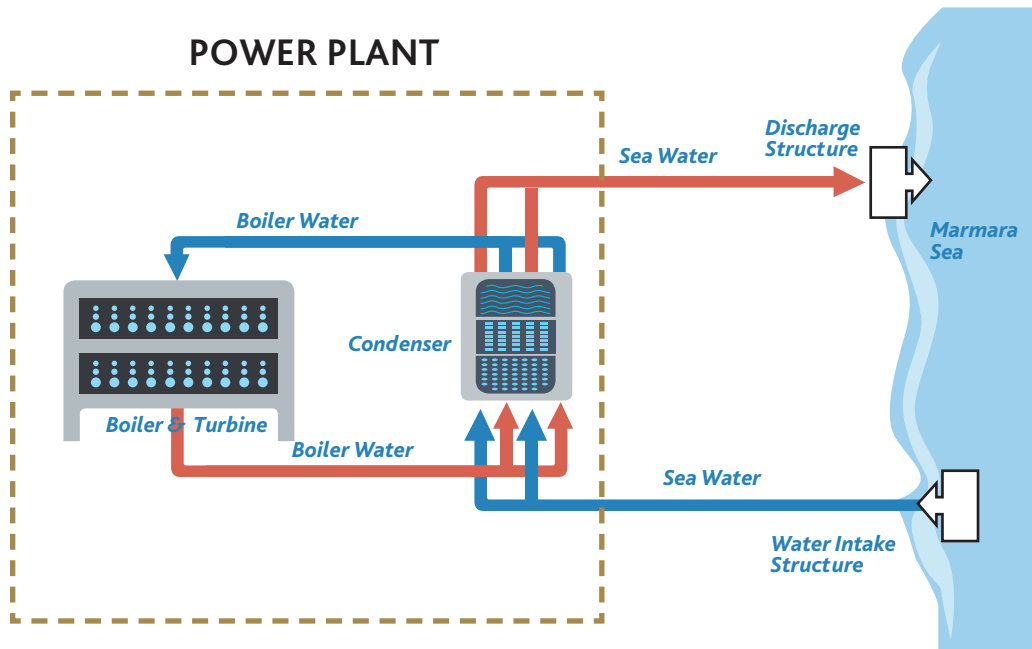


## Sustainable Water Management Project

One of the most important natural resources used in our plant is ‘water’. While water is used for cooling steel and maintaining the required quality standards in steel manufacturing, it is also an indispensable element for cooling machinery and equipment in the facility. In energy generation, water is again one of the most fundamental sources. Energy emerged from combustion turns boiler water into superheated steam and the electrical power is generated after the steam moves the turbine and then the generator through the turbine.

Daily fresh water need of the Değirmencik Integrated Plant is 24,000 m<sup>3</sup> at full capacity. This volume of water usage in our production processes increases the environmental significance of water from the topics of both conservation of water resources and energy management. Therefore, we have initiated the İÇDAŞ ‘Sustainable Water Management Project’ in 2007. We monitored many technical and financial parameters at the stages of effective realization and results evaluation.

Within the scope of this project, we aimed to stop using groundwater, which is a limited fresh water source and start using seawater, which is an unlimited water source to meet all needs at the plant. Additionally, we aimed to generate electricity from the cooling water discharged into the sea and establish a fish farm in the discharged water.



## Sea Water Treatment Facility

First of the three parts in this project is to treat seawater to obtain fresh water via reverse osmosis method. With this facility, we aim to treat enough water to meet the daily need of 7,000 m<sup>3</sup> fresh water of the increased production amount from a daily need of 3,500 m<sup>3</sup> in 2006 and to stop groundwater usage, by shutting down 32 wells. Total investment cost of the facility is 3 million 650 thousand USD approximately. We decided to go ahead with this investment although the unit cost of treated water is more than that of wells. We generate 12,000 m<sup>3</sup> fresh - water per day at the facility. We also implemented this successful system at our Bekirli facility. We also generate 12,000 m<sup>3</sup> fresh - water per day at this facility. Consequently, our total capacity at facilities reached 24,000 m<sup>3</sup> / day. In 2019, we plan to establish a new water facility of 6,000 m<sup>3</sup> / day at Değirmencik to increase our total capacity to 30,000 m<sup>3</sup> / day. Besides providing conservation of ground waters with this facility, we ensured the more effective usage of the same sources on agricultural fields. Also, as an indirect positive impact, the risk of saltwater intrusion of fresh water is reduced

## Fish Farming in Cooling Water Discharge

The second part of the project is fish farming facility. Our goal is to raise 100 thousand bream and sea

bass a year via fish farming in cooling water discharge. Besides pioneering fish farming in cooling water discharge in Turkey, we also obtain the entire water requirement of the facility from cooling water, which is 180 m<sup>3</sup> / hour. Another important purpose of the project is to show how the impact of cooling water to the ecosystem is sustainable. What makes fish farming in cooling water advantageous is that the temperature of the cooling water can be regulated manually for raising different seasonal fish with no additional investment required for providing water.

Initial investment cost of the facility is 150 thousand USD Since 2011, we have raised 313,000 breams and 213,000 sea bass at the facility.

### **Power Generation from Cooling Water Discharge**

Third part of the project is Sea Water HPP (Hydroelectric Power Plant) project. (The details of this project are in the 'Energy Management' section of this report.)

### **Waste Water Management and Water Quality Monitoring**

The water used in steel manufacturing is recovered and reused after treatment. And the steam used in energy generation is recovered by condensing. Cooling water is the only wastewater that is produced through our processes. A chemical pollution is not expected since the cooling water from the sea cools the process water without contacting it and then it is discharged back into the sea.

We have 14 domestic wastewater discharge units in different locations and 1 car wash wastewater discharge unit in Değirmencik Facilities and 3 domestic, 4 physical and 1 chemical treatment facilities in Bekirli Plant. We have Environmental Permit and License on Waste Water Discharge for all discharge units. Domestic wastewater dirt is removed by municipality sewage truck. Wastewater originated from car wash is discharged into a unit after a process in a physical treatment facility.

'Continuous Wastewater Monitoring System' is installed at both of the 2 discharge points Değirmencik and one in Bekirli Facilities since cooling water discharge temperature has to be continuously monitored. Dissolved oxygen, pH, conductivity and flow rates are also monitored besides temperature, and results are sent to Ministry of Environment and Urbanization every fifteen minutes.

We have a wastewater laboratory in our premises that is certified by The Ministry of Environment and Urbanization and accredited by Türkak. İÇDAŞ Environmental Control Laboratory has the world-class technology and equipment to make analysis on all parameters it is licensed to.

### **Results and Gains**



**Corporate:** We established one of the first Continuous Waste Water Monitoring Stations in Turkey. Our corporate consciousness is our environmental sensitivity. That is why we allocate vast budgets for environmental impacts and investments and take necessary actions accordingly.



**Environmental:** Continuous Waste Water Monitoring Station Project is one of our environmental investments. Cooling water obtained from the sea is discharged in compliance with standards. Therefore, no negative impact on the ecosystem incurs. Using sustainable seawater is an eco-friendlier method than using fresh water that is a scarce resource.



**Economical:** We don't impose any impacts on local fishermen and the ecosystem because biodiversity at the sea is not affected since cooling water is discharged in accordance with the standards.



**Social:** Environment and ecosystem are topics that affect everyone. This system eliminates any possible negative impacts.

# Energy Management

83% of our employees who participated in sustainability survey think that...

İÇDAŞ's energy efficiency investments and studies it undertakes with its environmental sensitivity and consciousness, are satisfying.

Steel sector, which has an intensive energy demand, consumes 6% of the total energy consumption of Turkey and its share among all industrial energy consumption is around 15%. These percentages reveal the environmental essence of energy generation and consumption efficiency is very high. Energy efficiency is in compliance with the security measures of energy generation and consumption. Also, a decrease in the emissions as a result of energy efficiency will have a direct positive impact on climate protection.

Electric power use in steel production takes up 56% of total power consumption of İÇDAŞ arc furnace as well as all the other facilities with arc furnaces. Turkey significantly relies on fossil fuels in electricity generation. Total energy consumption of all İÇDAŞ facilities is comprised of 87% coal, 3% natural gas and %10 electricity.

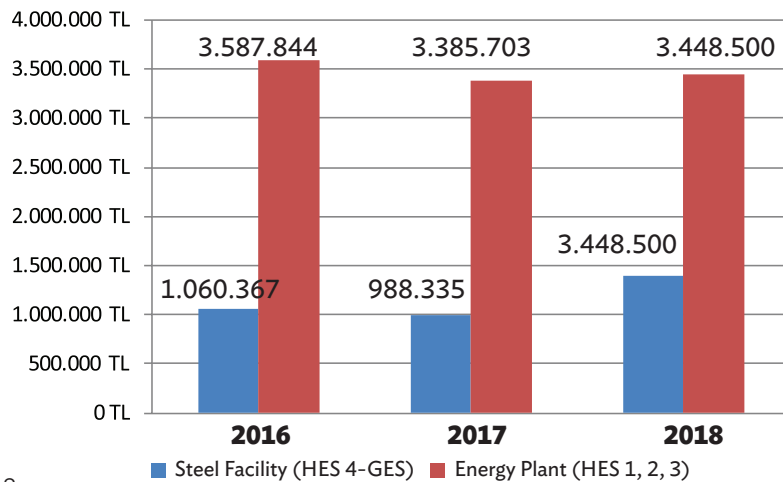
We at İÇDAŞ, have been applying our action plans towards the preservation of energy and natural resources within the ISO 50001 Energy Management System framework and improvement measures to yield maximum performance as well as reducing the electricity and natural gas consumption within the facility, while monitoring our overall performance.

We have been working with internationally known specialist companies on projects about the recovery of waste heat in melt shops and rolling mills. We prefer energy efficient products for our plant's illumination.

Our works on energy efficiency gained us the philosophy of producing the same quality product/service with a less energy consumption and CO2 emission, and as a result, with less cost. We also help reduce our country's dependency on the imported energy by the saving we make. We have the opportunity to be more competitive by pursuing technological developments, continuously searching for the best practice opportunities and reducing our costs.

## Economic Value of Energy Generated by Renewable Sources and Consumed within the Facilities

Facility Name	2016	2017	2018
Steel Facility (HES 4 - GES)	1.060.367 TL	988.335 TL	1.403.933 TL
Energy Plant (HES 1-2-3)	3.587.844 TL	3.385.703 TL	3.448.500 TL
<b>Total</b>	<b>4.648.211 TL</b>	<b>4.374.038 TL</b>	<b>4.728.861 TL</b>



## Generation of Electricity from Cooling Water Discharge

We started to work on building hydroelectricity turbines over the discharge line of the steel plant 2 and the power plant's cooling waters in 2008. We launched the facility in 2009 to generate electricity from seawater. In 2011, we invested 15 million US Dollars in 4 hydro energy power plants (HEPP) with 6 thousand KW - installed capacities.

We use non - contact seawater cooling systems for the cooling water used in our products and machinery at our steel plant and for cooling power plant steam. We discharge seawater used in cooling process back in the sea. We spend a total of 110 million kWh of electricity annually for pumping the water up to the Power Plant at 30 meters from sea level, and the Steel Plant at 50 meters from sea level.

Thanks to HEPP, we save economically, socially and environmentally as a result of recovering 25% of this energy. In 2018, the total energy generated by the four HEPPs was 23,04 million kWh (verified data) which created TRY 4.73 million of economic value for our company.

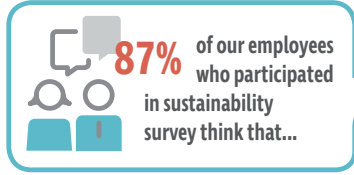
Considering that the average power consumption per person is 3,400 kWh / year in Turkey, we generate the amount of energy that approximately 6.830 people would consume. And instead of drawing this amount from the national power system, we produce it ourselves accommodating conditions of efficiency and without creating emissions while using it in our processes.



*Bekirli Power Plant*



# Emission Management



İÇDAŞ's emission reduction projects and other emission preventive efforts it performs with its environmental consciousness are satisfying.



One of the most important environmental parameters in our energy and steel manufacturing premises is the emission. The Emission Management is a part of the environmental management at İÇDAŞ. It complies with the local regulations and the EU criteria. All emission points in our premises comply with the national limits and the Best Available Techniques internationally.

Besides the stack emission measurements, we regularly measure and report dust emissions in eight stations established along the borders of the premises on a regular basis since 2006, exceeding the 'minimum two points in every two years' requirement by regulations. The dust and smoke filtering system and bag filters used in the steel manufacturing and lime facility have 99.99% efficiency for the dust particles over one micrometer.

## Monitoring of Carbon Emissions

In 2010, our steel plant has been the first of its kind to calculate its carbon footprint from steel manufacturing. We have been awarded with the Sustainable Steel Certificate from the British CARES institution in 2011 for our practices in sustainability and calculation of carbon footprint.

With the objective of issuing our own greenhouse gas inventory, our 13 employees have received training from Bureau Veritas in May 2012 on ISO 14064-1 on Specification with Guidance at the Organizational Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals topic.

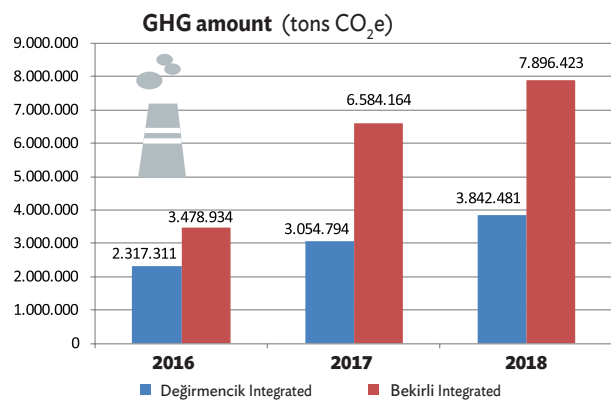
Bureau Veritas inspected 2011 Greenhouse Gas amount in October 2012, and its approval was certified in December 2012. We have been calculating, reporting and managing greenhouse gas emission according to ISO 14064-1 framework which we based our calculations on between 2012 and 2014. Since 2015 we calculate our emissions based on the related regulations. In 2018, a company authorized by the ministry verified our calculations.

### Calculations According to New Regulation

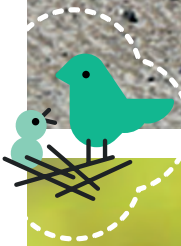
Facility Name	GHG amount (tons CO <sub>2</sub> e)		
	2016	2017	2018
Değirmencik Integrated	2.317.311	3.054.794	3.842.481
Bekirli Integrated	3.478.934	6.584.164	7.896.423

## Monitoring Air Quality by Continuous Emission Measurement System (SEÖS)

We completed the system we established in Değirmencik and Bekirli Facilities in accordance with Continuous Emission Management Systems Announcement in January 2014 with TRY 121 thousand 445 budget. The system infrastructure was built back in 2007 so that funnel emissions could be monitored by the Ministry of Environment and Urbanization. Emission is measured continuously using emission measurement devices on the funnels at the steel and power plants and broadcasted real time through the corporate web site ([www.icdas.com.tr](http://www.icdas.com.tr)) including a camera view of the funnel. We submit the emission measurement results to the Environment and Urbanization Provincial Directorate as daily average values, at the end of each month. We continue managing the system that we initiated voluntarily, as a legal liability.

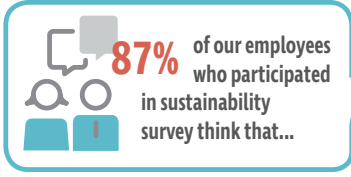








# Conservation of Biodiversity



İÇDAŞ's activities on conservation of natural life and biodiversity around its premises are sufficient.

Our systematic field operations on monitoring biodiversity started with our biologist tracking and photographing the flora and fauna in and around our facilities in 2013. First, we started documenting the species in the forest area around our plant and in the fresh water ecosystems.

We have been continuing tracking studies in the terrestrial, aquatic and marine ecosystems surrounding our plants. This work continues with regular weekly field visits, since our plants are located in an area that neighbors both marine - coast and forest ecosystems, which doubles our responsibility against the nature.

Biodiversity work in 2018 continued with marine ecosystem, ornithological observation and wild life monitoring studies. We identified that no endemic species exist in our region.

We conduct İÇDAŞ Biodiversity Project to better know the diversity of flora and fauna in the impact area of our plants, to initiate conservation projects regarding these species and to develop biodiversity in order to make ecosystem stronger. During these studies, we identify the species of flora and fauna, take pictures of each and log them in flora and fauna inventory. Each year, we prepare İÇDAŞ Biodiversity Report. With this report, leading the way in our industry, we were deemed worthy of Istanbul Chamber of Industry Environment Friendly Practices Award.

## İÇDAŞ Biga WPP Ornithological and Wildlife Observation Study

Wind power plants potentially have negative impacts mostly on birds of passage. In addition, habitat losses that occur during the construction stage pose threat on wildlife. Because İÇDAŞ Biga WPP is on the migration route of birds, Ministry of Forestry and Water Management decided on ornithological and wildlife observation to be handled for two years starting with construction works. The objective of the project that is conducted between 2015 and 2017 with a budget of TRY 262 thousand is to observe the impacts of the plant on bird migration and stop the turbines when necessary during migration since they may pose danger on birds.

In 2018, a biologist employed by İÇDAŞ conducted ornithological observations and reported the results of March 1st – November 15th Fall migration periods. These dates cover the spring, autumn, migration and reproduction periods.

The ornithological observation results revealed that the birds were more stable in fall than in spring. A scientific report was prepared during these wildlife observation and bat impact evaluation studies to identify the bat species that do / do not exist in and around Biga İÇDAŞ WPP site, their population, breeding - sheltering - strolling zones and determine impacts of the project on bat species if any and precautions to take. 9 new bat species were spotted and logged in our list in this study.

Besides, otter which was photographed by SAD - AFAG is another mammal to enter our list. In total, 10 new mammal species are added to our list. We listed the categories of these species according to European Red List prepared by IUCN (International Union for Conservation of Nature) in our biodiversity report.

In 2018, migration mobility was photographed, and carcass scanning was done. All these works were recorded in daily observation forms.



## **Artificial Reef and Supporting Biodiversity Project**

With its 671 kilometers long coastline, the Çanakkale Province commands 8% of Turkey's entire coastline. It has two islands with 137 kilometers coastline combined that are very rich in terms of fishing zones; the 62 kilometers long Strait of Dardanelles, which is a major fish migration route, and a section of Gulf of Saros which has an extreme importance in terms of fishing resources. Having one of the major gateways to the international waters to the Aegean Sea makes Çanakkale Province one of the most important fishing centers in Turkey.

There are over a thousand strings fishing boats and around ten seine fishing boats actively operating in the region. Also, around a hundred trawling boats along with seine fishing and string fishing boats in similar numbers each come to Çanakkale waters from Marmara and Black Sea in summer months for deep net fishing.

Taking off with the idea that the artificial reef units that could be formed in these regions would be highly beneficial to the professional and hobbyist fishermen, we signed a protocol with Onsekiz Mart University in June 2013 and kick started the project.

The aim of the project was;

- ✓ Supporting the regional fishing industry, including professional, hobbyist, small scale and industrial fishing,
- ✓ Contributing to the protection and improvement of marine biodiversity,
- ✓ Supporting the increase of their population by providing suitable
- ✓ Environments for the marine species in the region,
- ✓ Establishing feeding and protection zones for certain species, Preventing illegal fishing activities.

Under this protocol, the Faculty of Marine Sciences and Technology carried out dives in and around our harbor and prepared a preliminary documentation of the existing biodiversity. Following this, as part of another project called "Fishing in Çanakkale Will Breathe by Expanding Biodiversity" as prepared by the villages in the area, dives were carried out in 17 different areas in Çanakkale waters, and suitable spots for artificial reef zones were determined.

One location by the village of Değirmencik, and two locations by the village of Bekirli were found to be suitable for artificial reef installation. Following the feasibility report released in March 2014, we decided to go ahead with the Artificial Reef Project. After finalizing the legal permit processes, we planned for the descent of 2 thousand reef clusters into the sea and pressed the button in October 2014. We allocated TRY 750 thousand to the Project, which we completed in July 2015.

In 2018, the underwater recordings of our divers showed the positive outcomes of our project. As the water got cooler fish and other sea animals approached the reefs and both the number of species and population of these animals increased.

## **TÜBİTAK MAM Biga Peninsula Environmental Monitoring Project**

Upon a suggestion from our Project Environment Managerial Unit, we have targeted to monitor the ecosystem in the area a year in advance before the facility was operational, in order to monitor the effectiveness of our precautions to preserve the environment around our power plant, the construction of which commenced in 2009, and to present it as a scientific data to our stakeholders.

The project, which kick started on July 1st, 2010, is one of the biggest environmental monitoring projects in our country in terms of its scope and contents. The scope of the project covers all our facilities within 40,000 - km<sup>2</sup> areas and extends its borders from Marmara Sea to the Edremit Bay. We chose to have TÜBİTAK (The Scientific and Technological Research Centre of Turkey) MAM (Marmara Research Centre) run the project for we concluded that the extents of the project were vast,

and a government backed body would be objective and reliable in managing it. We finance the project that has TRY 895 thousand investment cost for 5 years.

Having had TÜBİTAK MAM's numerous specialists on board, we have extended the scope of the project beyond the initial emissions' monitoring, and we also started to monitor quality of air, land, surface fresh water, sea water, underground and rain water, plants, emission and water discharges and noise for enabling a comprehensive ecosystem monitoring.



There are monitoring stations in the area from Marmara Sea coast of Biga peninsula to the slopes of the Kaz Mountain. All samples are collected regularly within 3 or 4 days every month by TÜBİTAK MAM staff by visiting stations. Results of the analysis are reported by TÜBİTAK MAM in 6-month periods and presented to us. We present a copy of these reports to the Ministry of Environment and Urbanization as well.

In 2016, air quality observation model which was prepared 6 years ago is updated. According to this new model 10 new observation stations are established in Lapseki and Biga. Environmental parameters are monitored on a monthly basis at these stations. This monitoring activity will continue for another 60 months and will end by the end of 2021.

We received the first interim report in March 27, 2017 together with 2nd Stage Agreement that was signed in June 8, 2016. Karapürçek, Gürecealtı and WPP site number 1 spots are included in periodical measurements in addition to predetermined spots from previous years. 2 reports for the monitoring in 2018 were published at every 6 months. With the reports, it was confirmed once again that the environmental quality based on our premises was protected.

## Results and Gains



**Corporate:** Monitoring ecosystem by an independent public institution creates trust among stakeholders while displaying our self - esteem.



**Environmental:** We will ensure the protection of the ecosystem with this project. By the completion of thousands of analyses on air, land and water quality at Biga Peninsula, very important data will be collected. This is going to be an extensive study on how environmental parameters in the area's ecology will be emitted with their reasons. The study concerns other parts of the ecosystem in the area such as plants, animals and biotic system besides the local people.



**Economical:** Although the project does not contribute directly to our company financially, we believe we will enjoy important environmental and corporate advantages resulting from the project in the long term.



**Social:** We monitor and observe the living environment of approximately 500 thousand people and secure that they are not exposed to any environmental damage arising from industrial activities. The project has the characteristics to be implemented on other industrial facilities by adapting it to the local conditions of the facility. The project helped both TÜBİTAK MAM staff and our technical staff to gain new experiences and know - how.



# Agriculture and Livestock Farming Activities

When talking about Biga where our Değirmencik plant is located, agriculture, livestock farming, and industry come to minds. Because of the industrial investment flow into the area increased at a rapid pace, the local farmers who dealt with agriculture and livestock had some skeptical views towards the industry. Major motivator behind İÇDAŞ's step to agriculture and livestock farming practices is to show the local people that an industrial development that was implemented correctly would not affect the agriculture and livestock farming negatively.

We manage our activities by our Supervisor of Agriculture and Livestock and his team of engineers, technicians, veterinarians and beekeeper expert staff under various titles as Stock farming (2007) Fish Farming (2008), Apiary (2010), Sheep / Goat Breeding (2011) and Agricultural Practices (2007). We consume 80% of our products within the plant.

Although they fall out of our main business area, we continue our agricultural and livestock practices for their positive economic, social and environmental impacts with increasing investment amounts each year. Livestock farmers, farmers, agricultural hardware and chemical fertilizer vendors, seed vendors and agriculture laboratories are our principal stakeholders who benefit from our activities.

The most difficult part of developing our activities in these fields was to recruit qualified staff. We overcame this issue with internal trainings. We managed to gain the trust of local people with our open-house policy and welcoming them in our facility.

## Stock Farming, Beekeeping and Sheep/Goat Breeding

**Location:** : Değirmencik – Bekirli Villages / District of Biga

**Bred animals:** : Fish, bee, cow, sheep, chicken, goose, turkey, duck

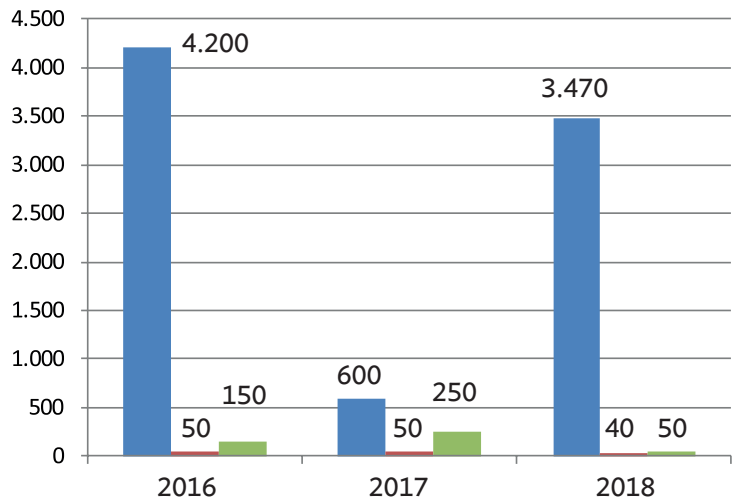
**Products** : Fish, comp honey, extracted honey, pollen, frame meat, eggs

External stakeholders whom we either get support from or give support to in order to benefit from the national subsidies and to share technical information:

- Food, Agriculture and Livestock Directorate of Biga District
- Biga Red Meat Association
- Çanakkale Beekeepers Association

**Animal Husbandry Investments (TRY1.000)**

	2016	2017	2018
Stock Farming	4.200	600	3.470
Beekeeping	50	50	40
Sheep / Goat Breeding	150	250	50



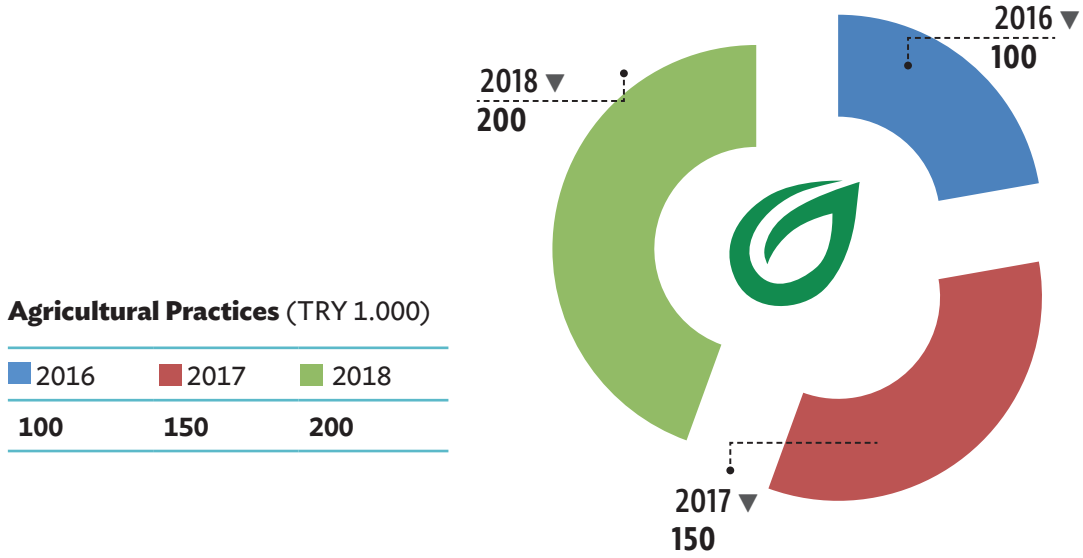
## Agricultural Practices

**Location:** Değirmencik- Biga

**Products:** Pepper, tomato, apple, melon, watermelon, cabbage, lettuce, eggplant, molasses, grapes, jam, tomato paste

External stakeholders whom we either get support from or give support to in order to benefit from the national subsidies and to share technical information:

- ⊗ Food, Agriculture and Livestock Directory of Biga District
- ⊗ Local and national fertilizer companies



### İÇDAŞ is establishing a Seed Bank in Çanakkale!

One fourth of the plants are under the risk of becoming extinct in 50 years and so the importance of seed banks is increasing. As İÇDAŞ, we started to work on establishing a high technology seed bank to protect our national seeds. After Ankara and İzmir, Çanakkale will host the third seed bank of Turkey. With this investment, we aim to crown our thousands of acres of agricultural land and save our country's agriculture to become independent from foreign countries by protecting our domestic seeds.

### Results and Gains



**Corporate:** We have strengthened our company's reputation in public and government eyes.



**Environmental:** We have enriched the biodiversity in the area.



**Economical:** We increased the financial funds into the area by supplying raw material from the local breeders. We introduced exemplary gardens in the area.



**Social:** We created employment for local people and earned an exemplary facility in the region.



# Performance Indicators

Economic Value Created & Distributed (TRY 1.000)	2018	
	İÇDAŞ ÇELİK ENERJİ	İÇDAŞ ELEKTRİK ÜRETİM
Economic Value Generated (Net Revenues)	12.821.733.411	2.738.522.426
<b>Economic Value Distributed to Stakeholders</b>		
Operating expenses	11.436.870.662	2.701.359.373
Benefits to employees	442.527.671	66.708.870
Benefits to government	355.978.664	55.709.914
Benefits to community	31.301.117	11.125.048
Economic value retained (profit)	555.055.297	-96.380.778

## EMPLOYEES

Employees by Gender	2016	2017	2018
Male	4.608 97,37%	5230 97,27%	5671 97,34%
Female	124 2,63%	147 2,73%	155 2,66%
<b>TOTAL</b>	<b>4.732</b>	<b>5.377</b>	<b>5826</b>

By Employment Type	2016	2017	2018
White collar female employees	92	100	111
White collar male employees	522	564	572
Blue collar female employees	32	47	44
Blue collar male employees	4.086	4.666	5099
<b>TOTAL</b>	<b>4.732</b>	<b>5.377</b>	<b>5826</b>

By Contract Type	2016	2017	2018
Full-time female employees	124	147	155
Full-time male employees	4.608	5.230	5671
Part-time female employees	0	0	0
Part-time male employees	0	0	0
<b>TOTAL</b>	<b>4.732</b>	<b>5.377</b>	<b>5826</b>



<b>By Location</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Istanbul (Office, Ambarlı Port, İkitelli) - Female	74	77	81
Istanbul (Office, Ambarlı Port, İkitelli) - Male	304	314	307
Değirmecik - Female	35	52	59
Değirmecik - Male	3.534	3972	4417
Bekirli - Female	15	18	15
Bekirli - Male	594	748	743
Rest of Turkey - Female	0	0	0
Rest of Turkey - Male	126	148	151
Ships - Female	0	0	0
Ships - Male	50	48	53
<b>TOTAL</b>	<b>4.732</b>	<b>5.377</b>	<b>5826</b>

### **EMPLOYEE TURNOVER**

<b>By Gender</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Female - New hires	33 5,0%	63 4,5%	49 4,5%
Female - Dismissals	31 5,8%	40 5,3%	36 5,8%
Male - New hires	633 95,0%	1340 95,5%	1031 95,5%
Male - Dismissals	504 94,2%	719 94,7%	584 94,2%
<b>TOTAL - New hires</b>	<b>666</b>	<b>1.403</b>	<b>1080</b>
<b>TOTAL - Dismissals</b>	<b>535</b>	<b>759</b>	<b>620</b>

<b>By location</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Bekirli - New hires	55 8,3%	159 11,3%	84 7,8%
Bekirli - Dismissals	59 11,0%	104 13,7%	92 14,8%
Değirmecik - New hires	417 62,6%	1.010 72,0%	806 74,6%
Değirmecik - Dismissals	310 57,9%	452 59,6%	348 56,1%
İstanbul - New hires	32 4,8%	48 3,4%	42 3,9%
İstanbul - Dismissals	34 6,4%	44 5,8%	37 6%
Rest of Turkey- New hires	26 3,9%	50 3,6%	10 0,9%
Rest of Turkey - Dismissals	10 1,9%	24 3,2%	7 1,1%
Ships - New hires	127 19,1%	136 9,7%	138 12,8%
Ships - Dismissals	122 22,8%	135 17,8%	136 21,9%

By Age	2016	2017	2018
30 Years and below - New hires	328 49,25%	765 54,53%	439 40,65%
30 Years and below - Dismissals	147 27,5%	274 36,10%	217 35%
30 - 50 Years - New hires	288 43,24%	569 40,56%	523 48,43%
30 - 50 Years - Dismissals	312 58,3%	424 55,86%	313 50,48%
50 Years and above - New hires	50 7,51%	69 4,92%	118 10,93%
50 Years and above - Dismissals	76 14,2%	61 8,04%	90 14,52%

ALL TRAININGS	2016	2017	2018
All Employees (hours / employee)	15,93	43,91	32,70
OHS TRAININGS	2016	2017	2018
All Employees (hours/employee)	12,88	22,22	19,92

TRAININGS BY TOPIC (hours / employee)	2016	2017	2018
Health and Safety	23.150	45.269	83.680
Orientation	18.968	31.112	26.216
Vocational	18.822	51.122	22.892
Single Spot	6.167	11.011	11.208
Information Security	3.402	6.129	3.252
Quality	2.934	10.336	4.573
Personal Development	2.025	1.896	1.416
Energy Management Systems	140	10.368	4.091
Environment and other	1.051	5.450	5.336
<b>Total</b>	<b>76.659</b>	<b>172.693</b>	<b>163.576</b>

OCCUPATIONAL HEALTH AND SAFETY	2016		2017		2018	
Region: Turkey (İÇDAŞ Employees)	Kadın	Erkek	Kadın	Erkek	Kadın	Erkek
Injury Rate **	0,00	18,15	0,00	20,68	0	20,94
Occupational Disease Rate	0	0	0	0	0	0
Work - Related Fatalities	0	1	0	0	0	0
Lost Day Rate	0,00	0,88	0,00	0,30	0	0,32
Absentee Rate	2,01	1,69	2,16	1,45	1,06	1,41

Only number of accidents is monitored regarding the subcontractors. Other data is not available.

\*\*Accident Frequency: Number of accidents in one million hours worked

AF=Total number of accidents / (Total number of employees x 300 days x 7.5 hrs.) - (Total number of days of absence x 7.5 hrs.) x 1,000,000

1 Fatal accident=7,500 lost days

All first aid level accidents are included within the accident frequency rate. Fatal accidents are included within the accident frequency rate. Lost days are calculated based on calendar days. Lost day count starts the day after the accident.



# Environmental Performance Indicators

## ENERGY DATA

### Secondary Energy Purchased from Non-Renewable Sources and Consumed within the Facilities - Electricity

Facility Name	Unit	2016	2017	2018
Steel Facility	kWh	1.967.507.470	2.461.552.283	2.221.835.879
	GJ	7.083.027	8.861.588	7.998.609
Değirmencik Power Plant	kWh	291.395.896	285.763.427	279.996.274
	GJ	1.049.025	1.028.748	1.007.987
Shipyard	kWh	1.556.054	1.127.243	2.829.394
	GJ	5.602	4.058	10.186
Değirmencik Auxiliary Facilities*	kWh	208.638.616	203.426.280	204.346.847
	GJ	751.099	732.335	735.649
Bekirli Power Plant	kWh	397.359.342	485.717.023	452.892.083
	GJ	1.430.494	1.748.581	1.630.411

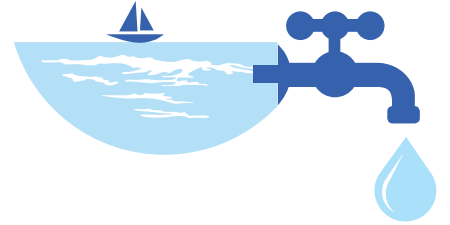
\* Auxiliary Facilities include all facilities in Değirmencik except for steel, energy and shipyard.

### Energy Generated by Renewable Sources and Consumed within the Facilities - Electricity

Facility Name	Unit	2016	2017	2018
Steel Facilities (HES4)	kWh	5.167.000	4.816.000	6.239.000
	GJ	18.601	17.338	22.460
Power Plant (HES1-2-3)	kWh	17.483.000	16.498.000	16.804.00
	GJ	62.939	59.393	60.494
Steel Facilities (GES)	kWh	-	0	602.147
	Gj	-	0	2.168

# WATER AND WASTE WATER MANAGEMENT

Water Taken from Sea to Produce Fresh Water	Year	m <sup>3</sup> /year
Steel Facilities	2016	1.728.000
	2017	2.772.897
	2018	1.902.764
Değirmencik Power Plant	2016	552.530
	2017	531.160
	2018	543.167
Shipyards and Auxiliary Facilities	2016	435.861
	2017	350.127
	2018	537.561
Bekirli Power Plant	2016	2.767.294
	2017	2.645.995
	2018	2.337.402



Water Recovered to be Reused*	Year	m <sup>3</sup> /year
Steel Facilities	2016	353.714.625
	2017	358.287.778
	2018	364.335.778
Shipyards and Auxiliary Facilities	2016	21.504.000
	2017	21.701.400
	2018	22.032.000
Değirmencik Power Plant	2016	59.187
	2017	55.363
	2018	62.592
Bekirli Power Plant	2016	55.030
	2017	135.315
	2018	135.031



\*Recovered and reused water is the water that is used either for the same or a different purpose after treatment or used for a different purpose without treatment, An example for this is the reuse of cooling water in steel facilities or using waste water to humidify ash, In the calculation of reused water, each cycle is taken into account.

Total Waste Water Discharge (m <sup>3</sup> /year)	Year	Waste Water Discharge*	Cooling Water Discharge
Değirmencik Integrated Facility	2016	737.613	469.062.960
	2017	689.850	434.986.560
	2018	256.838	450.772.080
Bekirli Power Plant	2016	132.644	1.023.027.840
	2017	133.347	1.071.190.320
	2018	217,447	1.027.048.680

\* Waste water discharge includes domestic, chemical and physical treatment facility discharges, Waste water is discharged from four separate locations through a canal to the sea after physical treatment, The amount of water discharge is calculated according to the capacities of the treatment facilities, Since the number of treatment facilities is the same, the differences of wastewater amount between years are insignificant,

# WASTE DATA

## Waste from Facilities and Its Management

Facility Name						2018
<b>Değirmencik</b>	<b>Unit</b>	<b>Recovered</b>	<b>%</b>	<b>Disposed</b>	<b>%</b>	<b>TOTAL</b>
Hazardous Waste	Tons	68.122	%5	1	%0	68.123
Non-hazardous Waste	Tons	910.527	%69	344.700	%26	1.255.227
Total Waste	Ton	978.649	%74	344.701	%26	1.323.350
<b>Bekirli</b>	<b>Units</b>	<b>Recovered</b>	<b>%</b>	<b>Disposed</b>	<b>%</b>	<b>TOTAL</b>
Hazardous Waste	Tons	159	%0,05	0.0690	%0	159
Non-hazardous Waste	Tons	208.109	%61,80	128.485	%38	336.594
Total Waste	Tons	208.268	%62	128.458	%38	336.753

\* The waste which is temporarily stocked in the facility is not taken into account.

## Waste Received from Ships and Its Management 2018

Facility Name	Unit	Recovered	%	Disposed	%	TOTAL
<b>Değirmencik</b>						
Hazardous waste (Bilge water, sludge, waste oil)	m <sup>3</sup> /year	875	%100	0	%0	875
Non-hazardous waste (Domestic and liquid waste)	m <sup>3</sup> /year	0	%0	1558	%100	1558
<b>Bekirli</b>						
Hazardous waste (Bilge water, sludge, waste oil)	m <sup>3</sup> /year	136	%100	0	%0	136
Non-hazardous waste (Domestic and liquid waste)	m <sup>3</sup> /year	0	%0	175	%100	175

# APPENDICES

## Corporate Memberships

- **Turkish Shipowners' Association**
- **BİSİAD** - Biga Industrial Businessmen Association
- **BSTP** - Biga Civil Society Platform
- **CARES** - Sustainability Committee
- **CEN** - Participation in the meetings of Construction of Steel and Prestressed European Standards Committee (CEN) on behalf of Turkey
- **ÇASIAD** - Çanakkale Industrialists and Business People Association
- **ÇİB** - Turkish Steel Exporters' Association
- **ÇTSO** - Çanakkale Chamber of Industry and Commerce
- **DTD** - Railway Transport Association
- **ENSAR** Foundation
- **EUROFER** - Eurofer The European Steel Association
- **GAN TÜRKİYE** - Global Apprenticeships Network
- **GİSBİR** - Turkish Shipbuilders' Association
- **IREPAS** - International Rebar Producers and Exporters Association
- **İKV** - Economic Development Foundation
- **İMMİB** - Istanbul Minerals and Metals Exporters' Association
- **İTO** - Istanbul Chamber of Commerce
- **KOSDER** - Coaster Builders and Administrators Association
- **MESS** - Turkish Employers' Association of Metal Industries
- **MÜSİAD** - Independent Industrialists' and Businessmen's Association
- **TÇÜD** - Turkish Steel Producers Association
- **TÇÜD** - Technical Quality Committee
- **TÇÜD** - Steel Journal, Member of Editorial Board
- **TMD** - Turkish Miners Association
- **TURMEPA** - Turkish Marine Environment Protection Association
- **TSE** - Turkish Standards Institution

## Integrated Management Systems

Management System Standard Certifications	Our Facilities	Date
ISO 17025 Laboratory Quality	Environment Control Laboratory, Fatigue Test Laboratory	2012
ISO 14064-1:2006 GHG Emissions	Steel Facilities, Energy Plants, Shipyard, Lime Facility, Harbor	2012
ISO 50001:2011 Energy	Steel Facilities, Energy Plants, Shipyard, Lime Facility, Harbor	2011
ISO 14001:2015 Environment	Steel Facilities, Energy Plants, Shipyard, Lime Facility, Harbor	2005
OHSAS 18001:2007 Occupational Health and Safety	Steel Facilities, Energy Plants, Shipyard, Lime Facility, Harbor	2005
ISO 9001:2015 Quality	Steel Facilities, Energy Plants, Shipyard, Lime Facility, Harbor	1994
CARES BS 8902:2009 Sustainability	Steel Facilities	2011
CARES BS EN 9001:2008 Quality	Steel Facilities	1998
CARES BRE BES 6001 Responsible Resourcing for Construction Products	Steel Facilities	2016
CARES Certification of Production for Nuclear Implementations and Mega Projects	Steel Facilities	2017
ISO 27001 Information Security	Steel Non-Production Units and Power Plants	2014
Shipyard Facility Security Certificate	Shipyard	2014
CE Certification	Geçerli Olan Tesislerimiz	Tarih
Fly Ash Production – TS EN 450-1:2006	İÇDAŞ Elektrik Enerjisi Üretim ve Yatırım A.Ş.	2012
Aggregates Production – EN 12620:2003 and EN 13242:2002	Havdan Aggregate Facility	2012
Production of Steel Slag Aggregates – EN 13043:2004 EN 13242+A1:2007	Steel Slag (Artificial Aggregate) Facilities	2012
Production of Steel Slag Aggregates- TS 706 EN 12620:2003+A1:2009	Steel Slag (Artificial Aggregate) Facilities	2015
KÇK G Certificate of Conformity Ready Mix Concrete Production - TS EN 206/TS 13515	Bekirli Ready Mix Concrete Facility	2017

## IFC Sustainability Standards Conformity Index



IFC Environmental and Social Sustainability Performance Standards Performance standards prepared by International Finance Corporation (IFC) to guide enterprises in managing all environmental-social impacts using Environment and Social Management System throughout the life of the project from planning to operation.

IFC Standards Conformity Index of our strategic topics that we explained in our report in detail is depicted in the following table.,

IFC	Performance Standards	Place In Our Report	Page
		<b>Environmental Performance</b>	53
PS 1	Assessment and Management of Environmental and Social Risks and Impacts	Emission Management	62
PS 3	Resource Efficiency and Pollution Prevention	Energy Management	60
		Waste Management	55

PS 6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Water Management	57
		Conservation of Biodiversity	64
<b>Sosyal Performansımız</b>			
PS 2	Labor and Working Conditions	Occupational Health and Safety	36
PS 4	Community Health, Safety, and Security	Emission Management	62
PS 5	Land Acquisition and Involuntary Resettlement	Local Community Engagement	41
PS 7	Indigenous Peoples		
PS 8	Cultural Heritage	Social Investments	42

## UN Global Compact Principles



İÇDAŞ is a member of Global Compact. UN Global Compact is an innovative social responsibility approach that suggests universal principles to competitive business world for establishing a mutual sustainability culture. Its vision is 'Sustainable and Comprehensive Global Economy'. Participating in Global Compact is completely voluntary.

Those enterprises that participate in the compact increase their profits in the midterm while in the short term; they enjoy the prestige and pride of having fulfilled their social responsibilities consciously.

### Human Rights

**Principle 1:** Businesses should support and respect the protection of internationally proclaimed human rights.

**Principle 2:** Businesses should make sure that they are not complicit in human rights abuses.

### Labor

**Principle 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

**Principle 4:** Businesses should uphold the elimination of all forms of forced and compulsory labor.

**Principle 5:** Businesses should uphold the effective abolition of child labor.

**Principle 6:** Businesses should uphold the elimination of discrimination in respect of employment and occupation.

### Environment

**Principle 7:** Businesses should support a precautionary approach to environmental challenges.

**Principle 8:** Businesses should undertake initiatives to promote greater environmental responsibility.

**Principle 9:** Businesses should encourage the development and diffusion of environmentally friendly technologies.

### Anti-Corruption

**Principle 10:** Businesses should work against corruption in all its forms, including extortion and bribery.



## GRI CONTENT INDEX

<b>GRI 101: FOUNDATION 2016</b>		
<b>GRI 102: GENERAL DISCLOSURES 2016</b>		<b>Location of Disclosure</b>
<b>Organizational Profile</b>		
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102-2	Activities, brands, products, and services	Page 12
102-3	Location of headquarters	İstanbul / Turkey
102-4	Location of operations	Çanakkale / Turkey
102-5	Ownership and legal form	Corporation
102-6	Markets served	Page 15
102-7	Scale of the organization	Pages 9-12
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102-10	Significant changes to the organization and its supply chain	Page 36
102-11	Precautionary principle	Pages 54-55
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102-13	Membership of associations	Page 76
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	<b>GRI 201 Economic Performance, 2016</b>	
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	<b>GRI 303 Water, 2016</b>	
	103-1 Explanation of the material topics and their boundaries	Pages 23-25
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	<b>GRI 304 Biodiversity, 2016</b>	
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	<b>GRI 404 Training and Education, 2016</b>	
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<b>GRI 201 Economic Performance, 2016</b>		
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<b>GRI 400 SOCIAL STANDARDS SERIES</b>		
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