

**SUSTAINABILITY  
REPORT  
2022**



# INDEX

## 1. About This Report 1

Scope of the Report	2
Principles and Standards	2
Our Next Report	2

## 2. Our Message To Our Stakeholders For A Sustainable Future 3

Sustainability Highlights at İÇDAŞ in 2022	6
--	---

## 3. Steel Production And Sustainability In The World 7

## 4. Corporate Profile 11

From Establishment to Present: İÇDAŞ	14
Our Group Companies	15
Product and Services	15
İÇDAŞ in the Sector	17
Awards	19
Corporate Memberships	19

## 5. Sustainability Strategy And Management 21

Sustainability Policy	22
Our Sustainability Commitment	23
Our Contributions and Collaborations for Sustainable Development Goals	24
Our Sustainability Goals	27

## 6. Good Governance 33

Mission Vision	35
Respecting Human Rights	35
Stakeholder Engagement	36
Materiality Analysis	37
Priorities of Our Stakeholders	39

## 7. İÇdaş In The Economy And Sector 41

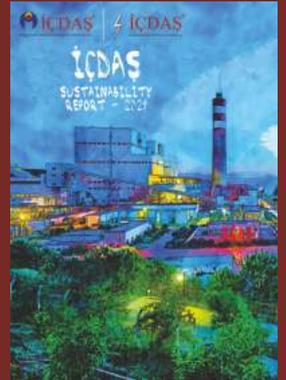
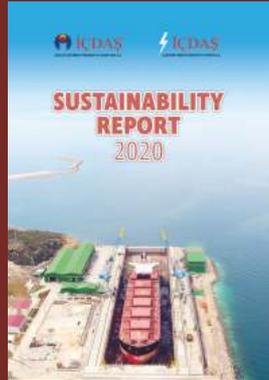
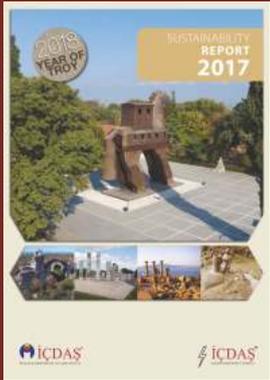
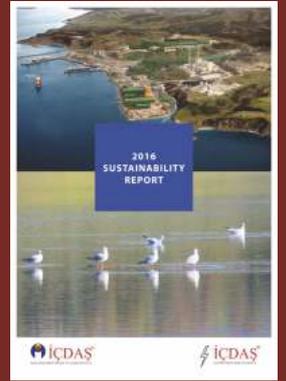
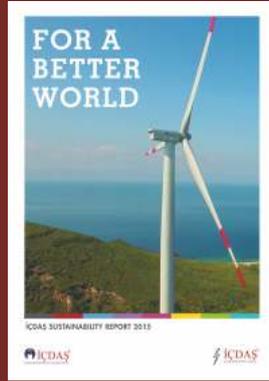
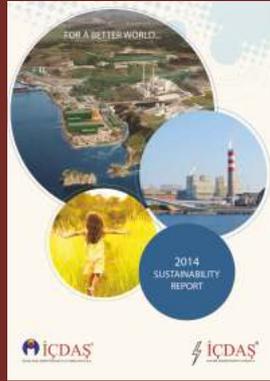
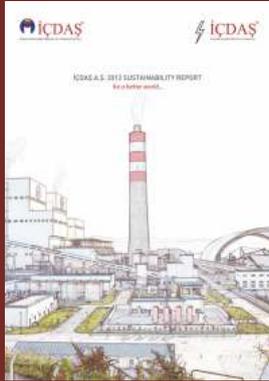
Customer Profile	42
Electricity Customer Distribution (by Number of Subscribers)	42
Electricity Customer Distribution (According to Energy Consumption)	42
Steel Sales Amount and Customers	42
Countries We Export	43
Responsible Supply Chain	45
R&D and Innovation Studies	46
Risk and Opportunity Analysis	48
Business Ethics, Competition, Corruption	52

## 8. People And Society 53

Occupational Health and Safety	54
Training	59
Together With the Society	62
Agriculture and Livestock	62
Archaeology	66
Local Investments	69

## 9. Environmental Sustainability 71

Water Management and Resource Protection	75
Energy Transition and Carbon Neutrality	79
Zero Waste	83
Nature Protection and Biodiversity	86
Türkiye's 3 <sup>rd</sup> Largest Gene Bank	90
Performance Indicators	92
GRI Content Index	100



# 01 | ABOUT THIS REPORT

## ABOUT THIS REPORT

As İÇDAŞ, we know that we are not only responsible for the economic value we produce but also for environmental and social values. In this context, supporting our leadership position in the industry with our sustainability practices is among our top priorities. **As İÇDAŞ, we continue to share our efforts that demonstrate our economic, environmental, and social performance with transparency with all our stakeholders through the Sustainability Report for the year 2022, which is the eleventh report we have regularly published since 2012.** We provide our stakeholders with the opportunity to evaluate our measurement, monitoring, and improvement efforts in managing the impacts of our activities.



*İÇDAŞ. has been preparing sustainability report in accordance with GRI standards since 2012. You can access the reports of the previous years on our website, [www.icdas.com.tr](http://www.icdas.com.tr)*



### Scope of the Report

The information contained in our report, unless otherwise specified, covers the activities carried out between January 1, 2022, and December 31, 2022, within our companies İÇDAŞ Çelik Enerji Tersane ve Ulaşım Sanayi A.Ş and İÇDAŞ Elektrik Enerjisi Üretim ve Yatırım A.Ş.

İÇDAŞ Çelik Enerji Tersane ve Ulaşım Sanayi A.Ş. engages in steel production, energy generation and supply to free consumers, dry cargo ship, chemical tanker ship, and tugboat construction, maintenance, and operation, as well as railway and maritime transportation, and mining operations alongside steel production. İÇDAŞ Elektrik Enerjisi Üretim ve Yatırım A.Ş, on the other hand, is primarily involved in electricity generation.

### Principles and Standards

Our report has been prepared in accordance with GRI Standards. In addition to GRI's principles of materiality, stakeholder engagement, sustainability context, and completeness, industry-accepted indicators and standards have been taken into account. The report also highlights İÇDAŞ's contributions to the United Nations Sustainable Development Goals.

### Our Next Report

We plan to publish our upcoming report, which will present our sustainability performance for the year 2023, in 2024



*For more information about our Sustainability Report, you can reach us via [icdas@icdas.com.tr](mailto:icdas@icdas.com.tr) and visit our website, [www.icdas.com.tr](http://www.icdas.com.tr). We would be delighted to hear your feedback and suggestions.*





**02**

**OUR MESSAGE TO OUR STAKEHOLDERS  
FOR A SUSTAINABLE FUTURE**

# OUR MESSAGE TO OUR STAKEHOLDERS FOR A SUSTAINABLE FUTURE



**Tarık YEGÜL**  
General Manager

## Dear Stakeholders,

In 2022, we are pleased to see that we have taken significant steps and successfully implemented many projects that were planned in the past. We are delighted to share these important milestones with you in our 2022 sustainability report.

In 2022, our country ranks as the 2nd largest steel producer in Europe and the 8th largest in the world. İÇDAŞ contributed to this by producing 3.13 million tons of raw steel, accounting for 8.92% of Türkiye's steel production in 2022. We also secured the 105th position among the world's largest steel producers for the same year. By generating 10,701,499 MWh of electricity in 2022, we covered 3.50% of Türkiye's total electricity production. Our total number of export destinations increased from 40 in 2021 to 46 in 2022. Additionally, our consolidated net sales for 2022 showed a remarkable increase of 153.2% compared to 2021.

*"We are Pioneers in Zero Waste, R&D and Innovation"*

The increase in population and the diversification of human needs along with technology make it imperative for us to better protect nature and resources. To achieve sustainable development goals and preserve natural resources, there is a need for the most appropriate management of waste. In this regard, the declaration of March 30th as World Zero Waste Day by the United Nations, thanks to the efforts of Mrs. Emine ERDOĞAN, underscores our country's pioneering role in global waste management.

We take efforts in Zero Waste and carry out exemplary activities for the world. İÇDAŞ supports sustainable development by managing waste and recycling scrap metal, which is the most crucial step in the circular economy. By

currently ensuring the recycling of scrap metal, we prevent the depletion of natural resources and ensure that all waste generated in steel production is reused from a zero-waste perspective. In 2022, we prevented environmental damage by recycling all of our hazardous waste. We showcase the most important examples of industrial symbiosis, contributing to the circular economy in the industry. Through our R&D efforts, we enable the use of iron sulfate dehydrant as fertilizer in agricultural production.

The importance of reuse in the waste hierarchy is increasing day by day. In our field, we extend the lifespan of ships and prevent them from becoming waste by carrying out repairs and maintenance in the largest dry dock in the Mediterranean Basin.

The United Nations has designated the theme for World Day 2023 as "Investing in Our Planet." This theme, directly related to the United Nations Sustainable Principles published in 2015, can also be observed in İÇDAŞ's activities. While producing, we also benefit from clean energy, prioritize compliance with national and international regulations, and ensure the implementation of new technologies in our facilities.

*"We are Increasing our Investments in Renewable Energy"*

We are swiftly implementing many planned renewable energy investments. Our installed solar energy capacity, which was 3.97 MW in 2021, has been increased to 5.30 MW. Alongside 6 MW of hydropower and 60 MW of wind energy, we continue to increase our renewable energy production. In 2024, we will launch Türkiye's single-mast wind power plant with the highest installed capacity. We have successfully reduced our energy consumption per ton of steel produced by 3.51% and achieved 19.8 million KWh in electricity savings through investments made in the production process.

“  
**WE ARE  
PIONEERS IN  
ZERO WASTE,  
R&D AND  
INNOVATION**  
”



### *"We Support the Carbon Neutrality Goal"*

As part of Türkiye's 2053 carbon neutrality goal, we are working to increase our renewable energy sources while also striving to reduce carbon emissions in our operations and among our suppliers. We are proud to have reduced our greenhouse gas emissions by 5% compared to 2021. In our industry, the energy intensity averages 21.32 GJ/ton of raw steel globally. For Electric Arc Furnace plants, it's 10.04 GJ/ton, while İÇDAŞ averages only 2.41 GJ/ton of raw steel.

Our sector, which has been identified as one of the top five sectors to be affected by the "green deal" introduced by the European Union and the resulting "border carbon tax" applications, faces a significant responsibility in maintaining competitiveness on a global scale during this process. In addition to our vital role as the Presidency of the Steel Exporters' Association, İÇDAŞ continues to contribute to various platforms to ensure that our sector remains competitive in this evolving landscape.

## **Dear Stakeholders,**

### *"We are Reducing Water Footprint"*

One of the most critical inputs in iron and steel production is water. The theme for World Water Day in 2023 has been designated as "accelerating change to resolve the water crisis." We would like to emphasize that İÇDAŞ has implemented significant investments to reduce our water consumption and use water efficiently.

İÇDAŞ meets its entire water needs from seawater and treats process wastewater to meet regulatory requirements while also generating energy through a hydropower plant, a renewable energy source. Our wastewater discharge is continuously monitored with an instant wastewater monitoring system, and the analysis results are reported to the Ministry of Environment, Urbanization, and Climate Change. In 2022, through our R&D efforts and investments, we enabled our wastewater treatment facilities to produce water of the same quality as the water used for industrial processes, allowing us to use it for ash moistening and vehicle washing processes. We reduced the amount of water consumed for producing our steel by 6.33%, bringing it down to 0.80 m<sup>3</sup>.

Furthermore, we are focusing on R&D activities related to the use of hydrogen generated during the oxygen production process from water and planning investments in this regard.

### *"We Support Local Development..."*

We strongly support archaeological activities in our region with the aim of promoting tourism, one of the most crucial dynamics of the local economy, while also uncovering our cultural treasures. In this context, the archaeological excavation sites we support saw a two-fold increase in visitors in 2022, with 685,470 tourists. Furthermore, we continue to rapidly advance in a development process where employment is locally provided by making new investments in our agricultural and livestock activities.

It is essential for all our managers and employees within our organization, as well as all our external stakeholders with whom we interact, to contribute to our activities, which is an integral part of our continuous improvement approach. We gather the opinions of our internal and external stakeholders not only through annual surveys but also within the framework of our quality infrastructure and on various platforms to shape our policies and investments. In addition to all this, we consider union membership as a fundamental human right and a part of participation in the production process, and we actively demonstrate this by having more than 50% of our employees as union members. We make an effort to source our workforce from the local residents, providing 76% of our human resources from citizens living in our region.

One of the most significant contributions to our organization is third-party audit processes. In 2022, we were audited for 87 days at different times in various categories such as product, certification, and sustainability, successfully completing these audit processes.

In summary, we continue our activities in strict adherence to the approach of "development that meets the needs of the present without compromising the ability of future generations to meet their own needs," as emphasized by the United Nations in the Brundtland Report of 1987.

## SUSTAINABILITY HIGHLIGHTS AT İÇDAŞ IN 2022



While the energy intensity of steel production in the world is **10.04 GJ/ton** of crude steel in electric arc furnace plants using scrap steel in 2022, this ratio is **3.38 GJ/ton** in 2022 at İCDAS.



As part of energy improvement and efficiency efforts, **19.8 million KWh** of electricity consumption has been prevented.



We have increased our total installed capacity of renewable energy to **70.8 MW**.



Investing in renewable energy production has led to the prevention of **89,873 tons** of greenhouse gas emissions.



Cold processing facility has been commissioned.



**3 R&D projects** have been completed.



Agricultural research authorization has been obtained for **3 different plant groups**.



Greenhouse gas emissions has been reduced by **5%**.



The unionized personnel ratio has been increased to **54.41%**.



Energy consumption in steel production **1 ton** of steel has been reduced by **3.51%**.



Water consumption in steel production has been reduced by **6.3%** to **0.80 m<sup>3</sup>/ton** of steel.



The number of student athletes, supported by İÇDAŞ, has been increased to **535**.



Artificial intelligence based **OHS Video Analysis Software Platform** has been created.



Online/distance personnel training has been started through **İCDAS ACADEMY**.



The number of visitors to the archaeological excavation sites, supported by İÇDAŞ, doubled to **685,470 people**.



**03**

**STEEL PRODUCTION AND  
SUSTAINABILITY IN THE WORLD**

# STEEL PRODUCTION AND SUSTAINABILITY IN THE WORLD

Because steel is abundant, inexpensive, and well-processable, steel accounts for 90% of the world's metal products and has a wide range of applications.

Steel can be easily separated from its mixture with other materials and recycled indefinitely without degrading its quality - a unique feature. Steel is the perfect material for recycling as it can be endlessly recycled into all kinds of steel products after the end of the product life.

The demand for steel continues to increase day by day. In our country, which is located in an earthquake-prone region, it is necessary to have a more precise quality of steel and planning in order to make industry, residential, and commercial areas much more resilient. This need is also observed worldwide, and the current situation and expectations highlight this increasing demand.



**Steel is a sustainable material** that will be forever reborn in new steel products.



The annual sales amount of the products produced by the steel industry by converting from iron reaches **2.5 trillion dollars**.<sup>3</sup>



It is estimated that iron accounts for **1/3 of the world's weight**.



About **240 kg** of liquid steel is produced per person per year.<sup>4</sup>



The value of the global steel market in **2021 reached 874.6 billion dollars**.<sup>1</sup>



Between 2012 and 2050, the need for steel is projected to increase by **100%**.<sup>5</sup>



Total employment in the steel industry amounts to **6 million** worldwide. The steel industry's contribution to employment in other industries is estimated at **43 million**.<sup>2</sup>



Recycling and reusing 1 ton of scrap metal is much more environmentally friendly than using 1 ton of raw metal obtained by consuming natural resources. For example, recycling **1 ton of metal results in 52% less CO2 emissions from steel, 65% less from copper, and 92% less from aluminum**.<sup>6</sup>



<sup>1</sup>IMARC Grup  
<sup>2</sup>World Steel Association (World Steel)  
<sup>3</sup>World Steel

<sup>4</sup>The World Counts  
<sup>5</sup>World Steel  
<sup>6</sup>Report on the Environmental Benefits of Recycling,2016

## CIRCULAR ECONOMY IS ESSENTIAL FOR CARBON NEUTRALITY

For more than a century, metals have been indispensable for the construction and modernization of critical infrastructure such as bridges, highways, and buildings, and for the manufacture of everyday products such as batteries, electronics, and automobiles.

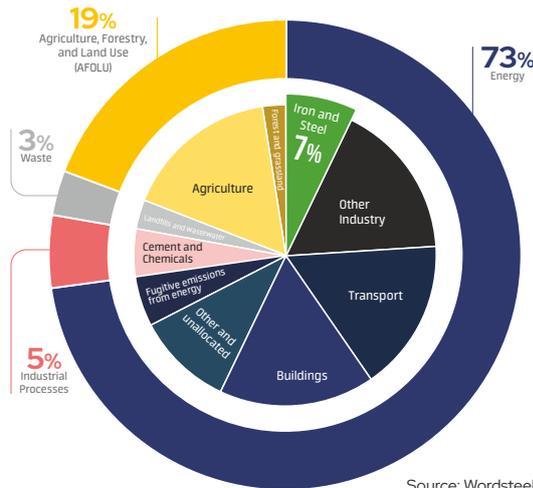
Many of the low-carbon technologies of the future, such as wind, solar, and electric vehicles, are more metal-intensive than the technologies they replace. Achieving global carbon reduction targets through the implementation of these technologies will require efficient and reliable metal recovery from an evolving feedstock of end-of-life products.

The use of scrap in crude steel production reduces energy use, greenhouse gas emissions, and resource consumption. One ton of scrap used in crude steel production prevents 1.5 tons of carbon dioxide emissions.<sup>7</sup> Steel scrap plays an increasingly important role in decarbonizing the sector, both as an input to secondary steel production (Steel production is a process that requires a lot of electricity, and therefore as the energy sector decarbonizes, so will the steel sector) and as an input to primary steel production, which can help reduce the GHG intensity of production.

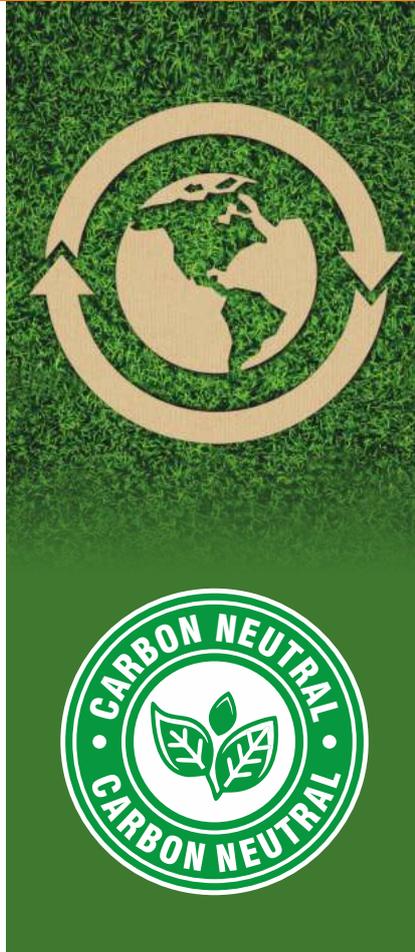


*Both primary and secondary steel production emitted around 2.6 Gt CO<sub>2</sub> in 2020, equivalent to around 7% of global emissions.*

*On a sectoral average, one ton of crude steel production accounts for 1.4 tons of direct CO<sub>2</sub> emissions (Scope 1) and 0.6 tons of indirect CO<sub>2</sub> emissions (Scope 2).*



Source: Wordsteel



<sup>7</sup>World Steel Association



**Steel is considered a sustainable material due to its enduring nature; once produced, it can be utilized indefinitely without degradation in quality, thanks to its infinite recyclability.**



# 04

## CORPORATE PROFILE



*From past*

*To present*

# CORPORATE PROFILE

As İÇDAŞ, we took our first steps when the head of the family, Koca Mustafa Bey, came to Istanbul in the 1880s to enter the ship repair business. Then, under the leadership of the Aslan family, we entered the field of casting and machinery in 1954 and established our first rolling mill in 1961.

In 1969, we officially established Istanbul Demir Celik Izabe Sanayi A.Ş. Since 1970, we have continued to produce construction steel and alloyed steel, and with our production capacity, we have become one of Türkiye’s largest steel producers. In addition to steel production, we also operate in the energy sector.

**Our company has 3 steel mills, 4 rolling mills, 2 power plants, 4 hydropower plants, 1 solar power plant, 1 wind power plant, 1 seed bank, 1 lime plant, 2 port operations, 4 scrap centers, 1 cold rolling plant, 1 shipyard (ship construction), and 1 dry dock (ship repair, maintenance and renovation).**

According to Istanbul Chamber of Industry (İSO), among Türkiye’s top 500 industrial companies, including the public sector, in the overall ranking for the year 2022, İÇdaş Çelik Enerji Tersane ve Ulaşım Sanayi A.Ş. is ranked 12<sup>th</sup>, while İÇdaş Elektrik Enerjisi Üretim ve Yatırım A.Ş. is ranked 36<sup>th</sup>. İÇDAŞ, along with its group companies, employs a total of 6,174 employees. As İÇDAŞ, while leading the steel industry in the fields of technology and quality, we are aware of the impact of the strategic importance of the national steel industry on the Turkish economy, and therefore we continue our activities in a way that is connected to our roots.

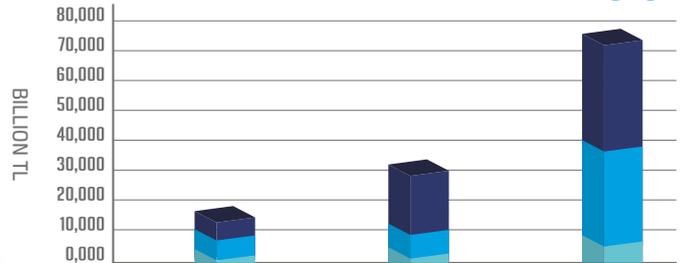
As İÇDAŞ, we are aware that the steel industry has always been the locomotive sector of the economies of all developed countries and is one of the largest industries affecting the world. As one of the largest private sector steel producers in our country, with this sense of responsibility, we contribute to the goal of our country to reach the level of contemporary civilizations in the field of the steel industry.

We meet world quality standards with our integration and use of technology in the investments in Çanakkale. As İÇDAŞ, we have positioned ourselves as a respected organization in the world steel league with the competitive power we have created, and thus we have had a significant impact on the global competitiveness that reflects the future of our country.

With our active attitude in energy efficiency, process efficiency, environmental awareness, use of technology, and employee participation in productivity; we share the justified pride of bringing the our country to a respected point today with its competitive power in a race that we started far behind in the world steel industry.



*In 2021, the total number of countries we exported is 40, and in 2022, this number has been increased to 46. In 2022, our consolidated net sales amounted to 75.817 billion TL, representing a 153.2% increase compared to 2021.*



	2020	2021	2022
<b>Steel</b>	<b>10,428</b>	<b>21,734</b>	<b>40,670</b>
<b>Energy</b>	<b>4,720</b>	<b>6,823</b>	<b>31,287</b>
<b>Other</b>	<b>0,585</b>	<b>1,393</b>	<b>3,860</b>





Steel Mill



Rolling Mill



Power Plant



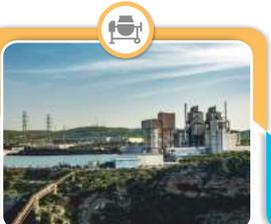
Hydropower Plant



Solar Power Plant



Wind Power Plant



Lime Plant



Port Operations



Scrap Centers



Shipyard  
(Ship Construction)



Dry Dock  
(Ship Repair, Maintenance  
and Renovation)



Cold Rolling Plant



Agricultural Enterprises



Seed Bank



Animal Husbandry

# FROM ESTABLISHMENT TO PRESENT: İÇDAŞ

We established our first rolling mill.

1961



We established İstanbul Çelik Demir İzabe Sanayi A.Ş.

1969



We established our first steel plant.

1970



We established our second rolling mill.

1994



We established our Değirmencik Integrated Facility.

2001



We established Değirmencik Integrated Thermal Power Plant Unit 1.

2005



We established our fourth rolling mill.

2004



We established our second steel plant.

2009



We established our Oxygen Plant.

2008



We established our third rolling mill.



We established our third steel plant.



We established our Lime Plant.



We established our fifth rolling mill.



We commissioned the 2<sup>nd</sup> and 3<sup>rd</sup> Units of Değirmencik Integrated power plant.

2009



We established Bekirli Power Plant.

2011



We started production at our second rolling mill in Biga.

2018



We established Wind Power Plant.

2015



We commissioned Bekirli Power Plant Unit 2.

2014



We established our Ready-Mixed Concrete Facility.

2013



We commissioned the 2nd Kiln of the Lime Plant.

2019



We started our Ship Repair and Maintenance activities.

2020



We started to work on the establishment of the Spooler line at the Special Wire Rod Steel Production Facility (HH-3).

2021



Cold rolling plant has been commissioned.

2022



## GROUP COMPANIES



### İÇDAŞ Çelik Enerji Tersane ve Ulaşım A.Ş.

Steel Production, Energy and Shipbuilding and Ship Repair and Maintenance



### İÇDAŞ Elektrik Enerjisi Üretim ve Yatırım A.Ş.

Electricity Generation



### İÇDAŞ Elektrik Enerjisi Toptan Satış İth. ve İhr. A.Ş.

Electricity Sales



### ERAS Taşımacılık Taahhüt İnşaat ve Ticaret A.Ş.

Land Transportation



### BİGAİR Havacılık ve Taşımacılık San. ve Tic. A.Ş.

Airline



### İÇDAŞ Dış Ticaret A.Ş.

Agriculture and Livestock



### İÇDAŞ Sigorta Aracılık Hizmetleri A.Ş.

Insurance



### İÇYAPI İnşaat Taahhüt Tic. A.Ş.

Construction



### ICE TANKER Deniz Taşımacılık Ltd. Şti.

Ship Management



### KARSAN Gemi İnşa San. ve Tic. A.Ş.

Shipbuilding and Repair & Maintenance

## PRODUCT AND SERVICES

İÇDAŞ's steel products are used in sectors such as construction, automotive, tire, and machinery manufacturing, while the electricity produced in the İÇDAŞ's power plants is transferred to legal entities through the state network. The ships produced in İÇDAŞ's shipyards are mainly included in İÇDAŞ's own fleet.



Billet, Bloom

The starting point for rolling products such as construction steel, flat bar, section, and wire rod. They are square, long, and continuously cast semi-finished products with cross-sections ranging from 100 mm to 200 mm.



Construction Steel

A type of steel with ribs on its surface, used in reinforced concrete construction, produced as an alternative to smooth-surfaced construction steel and replaced it over time. It is produced in 6 - 50 mm diameters and 6-18 m lengths as ribbed bars. As ribbed wire rod, it is produced in diameters of 6 - 20 mm and shipped in 2-3 tons.



Wire Rod

A semi-finished metal bar made by hot rolling, usually with a round cross-section, used for cold drawing, wound into coils. It is used in the production of welding electrodes, steel mesh, wire, bolts, springs, and similar products.



Electricity Generation

Electricity generated at our thermal, hydroelectric, wind, and solar power plants is delivered via power lines to customers operating in sectors such as hotels and industrial enterprises, fuel oil, IT, steel, finance and investment, construction, food, concrete, electronics, energy, logistics, mining, automotive, health, agriculture, textile, transportation, as well as to many points ranging from shopping malls to restaurants, schools, residences, and public institutions.



Shipbuilding Ship Maintenance & Repair

In 2022, we started to produce 2 6700 DWT stainless steel oil & chemical tankers in our shipyard and we have created the production plan to be completed in 2024 and 2025.

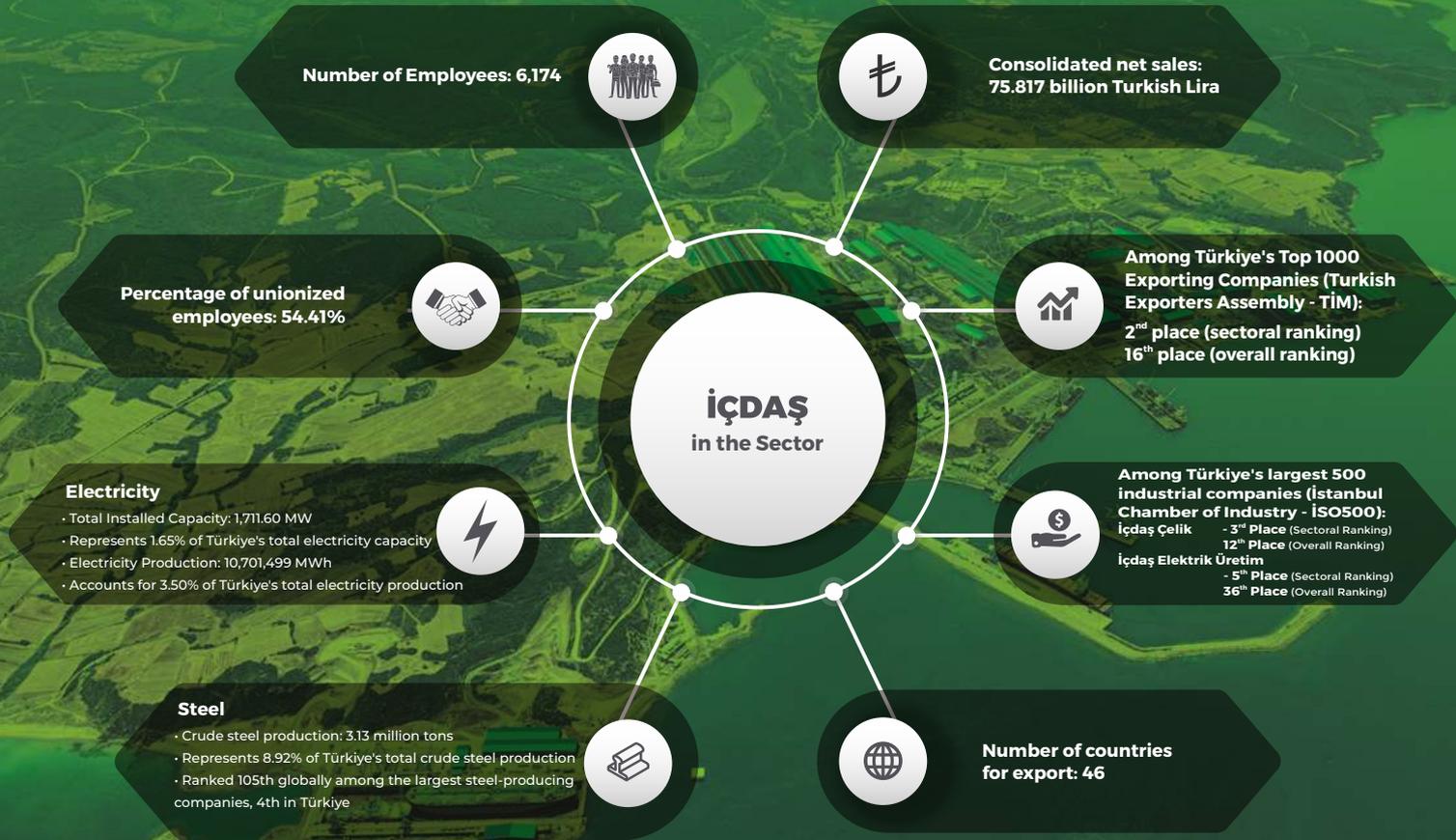
4,500 DWT LORD LUPO stainless steel oil & chemical tanker, which started its operations in 2020, was launched in 2022.

With the Dry Dock, which was put into operation in mid-2020, we provide maintenance and repair services to ships of 360\*60 m length. In 2022, maintenance and repair operations were carried out for 17 vessels in total, the largest of which was 206,291 DWT and 299.94 m in length.



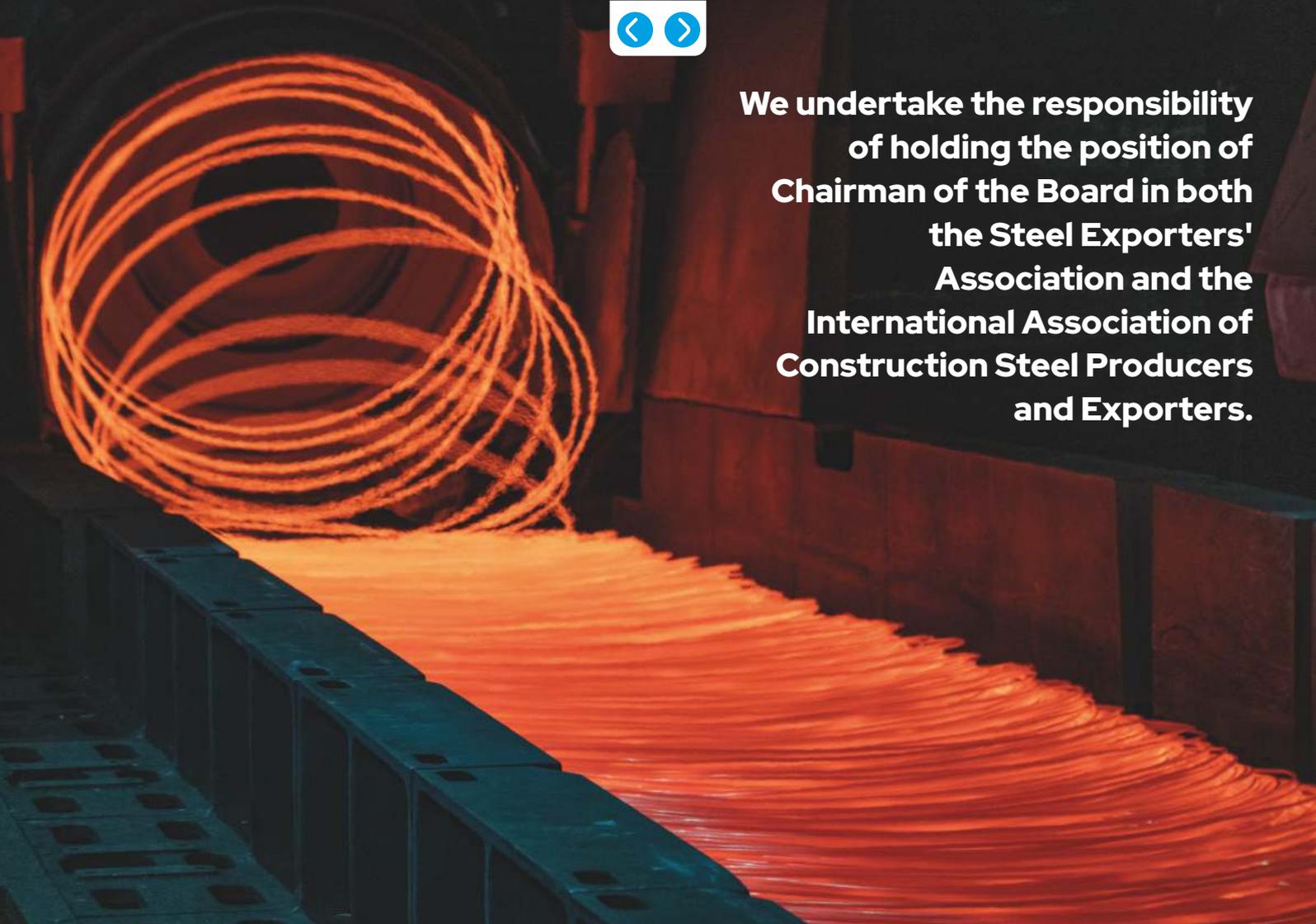
We, as İÇDAŞ, account for  
**8.92%** of Türkiye's  
total raw steel production







**We undertake the responsibility  
of holding the position of  
Chairman of the Board in both  
the Steel Exporters'  
Association and the  
International Association of  
Construction Steel Producers  
and Exporters.**



## AWARDS

### TİM

*Within the scope of the Turkish Exporters Assembly (TİM), we are ranked 16<sup>th</sup> among Türkiye's top 1000 exporters and 2<sup>nd</sup> within steel sector.*



*According to Istanbul Chamber of Industry (ISO), among Türkiye's top 500 industrial companies, including the public sector, in the overall ranking for the year 2022, İçdaş Çelik Enerji Tersane ve Ulaşım Sanayi A.Ş. is ranked 12<sup>th</sup>, while İçdaş Elektrik Enerjisi Üretim ve Yatırım A.Ş. is ranked 36<sup>th</sup>.*

*In 2022, we provided the main sponsorship of Parion, Troy, Apollon, Assos, Troyas Alexandro, and Maydos archaeological excavation sites as a single company.*

## CORPORATE MEMBERSHIPS

İÇDAŞ is actively involved in many associations, foundations, chambers, and associations for the development of both our sector and non-governmental organizations. Participation and information sharing in every field are very important for us to achieve sustainable development goals. For this reason, İÇDAŞ is actively involved in all relevant non-governmental organizations for the development of steel sector in Türkiye, updating the legislation with current technological developments and changes in the world, developing the country's export in steel, and making national and international standards useful.

We undertake the responsibility of holding the position of Chairman of the Board in both the Steel Exporters' Association and the International Association of Construction Steel Producers and Exporters.

Associations, Foundations, Chambers and Unions	Duty
Shipowners Association	Member
CARES Sustainability Committee	Member
CARES Construction Steel Technical Committee	Member
European Standard Committee for Construction and Prestressed Steels (CEN) meetings	Participation on behalf of Türkiye
ÇİB - Steel Exporters Association	Chairman of the Board
DTD - Railway Transportation Association	Member
EUROFER - Eurofer the European Steel Association	Member
GAN TÜRKİYE - Global On-the-Job Training Network	Member
GİSBİR - Turkish Shipbuilders' Association	Member
IREPAS - International Rebar Manufacturers and Exporters Association	Chairman
İKV - Economic Development Foundation	Foundation Supporter
İAV - Economic Research Foundation	Foundation Supporter
İMMİB - Istanbul Mineral and Metal Exporters' Associations	Member
İTO - Istanbul Chamber of Commerce	Member
KOSDER - Coaster Shipowners and Operators Association	Member
MESS - Turkish Metal Industrialists Union	Member
TÇÜD - Turkish Steel Producers Association	High Advisory Board Member
TÇÜD - Turkish Steel Producers Association	Acting Chairman and High Advisory Board Member
TÇÜD - Technical Quality Committee	TSE 708 - Updating the Construction Steel Bar Standard
TMD - Turkish Miners Association	Representative
TURMEPA - Marine Clean Association	Member
TSE - Turkish Standards Institute	Mirror Committee Member (Preparation of Standards related to the steel sector, Giving opinions)
İMEAK - Chamber of Shipping	Representative



**İÇDAŞ is actively involved in many associations, foundations, chambers, and associations for the development of both our sector and non-governmental organizations**



**05**

**SUSTAINABILITY STRATEGY  
AND MANAGEMENT**

# SUSTAINABILITY STRATEGY AND MANAGEMENT

“

*“İÇDAŞ's presence strengthens circular economy.”*

”



To protect natural resources in the best way possible in the fight against climate change, the circular economy must be implemented in all areas and zero waste and waste recycling must be prioritized. We strengthen the circular economy by recycling scrap metal and ensuring that our process wastes such as slag, oxide layer and flue dust are utilized in other sectors. In our production processes, we implement sustainability principles in the best way possible to achieve carbon neutrality and plan our investments accordingly. We are aware that our economic development will only be permanent with environmental and social development and good governance. We will accelerate our efforts towards the 2053 carbon neutrality target in the coming period.

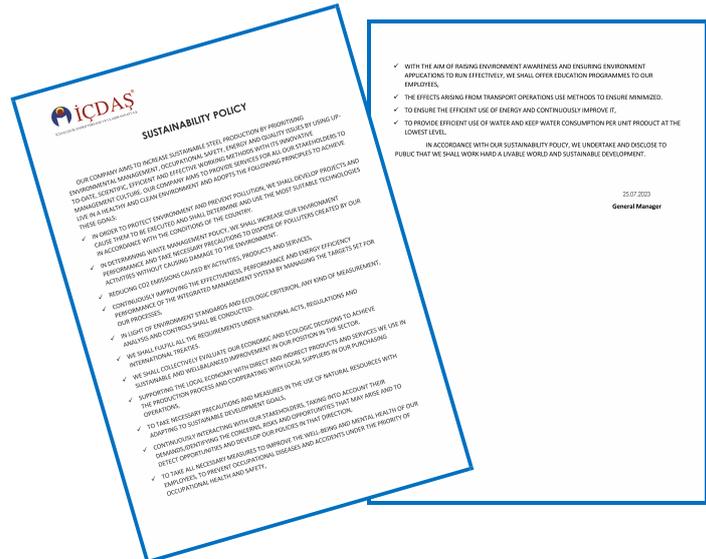
**Fuat Erkan TEKİN; Değirmencik Integrated Plant Director**

## Sustainability Policy

İÇDAŞ's sustainability policy is built upon environmental, social and governance (ESG) foundations.

İÇDAŞ's sustainability approach covers all personnel from the board of directors to mid-level decision-makers, engineers, technical personnel, and workers. Therefore, İÇDAŞ family, as a whole, works to realize the 17 sustainability goals published by the United Nations in 2015.

İÇDAŞ's Sustainability Policy is accessible through [www.icdas.com.tr](http://www.icdas.com.tr).



## OUR SUSTAINABILITY COMMITMENT

<b>Aim</b>	To be a leading company in the steel industry with a sustainability perspective by offering products and services of universal quality and standards			
<b>Strategy</b>	Creating a sustainable and participatory working environment with environmental, social, governance, and economic dimensions that prioritizes reducing carbon emissions, contributes to the development of the local community while considering the needs of the residents in the operating area, and promotes the discovery and promotion of historical and cultural assets in the operating area			
<b>Source of our strategy</b>	Reducing greenhouse gas emissions to limit global warming to 1.5 °C	Economic and cultural needs of the people living in our region	The need for quality steel production	Increased competition due to changes in international standards and practices
<b>Our Values</b>	Innovative Management Culture	Participation	Sustainability	Addressing Local Needs
<b>Goals</b>	<p><b>Social</b></p> <ul style="list-style-type: none"> <li>-Securing the union rights of our employees</li> <li>-Providing an accident-free working environment</li> <li>-To ensure continuous vocational training of our employees</li> </ul> <p>To support the development of the people living in our operating area and to be in constant communication</p>	<p><b>Environmental</b></p> <ul style="list-style-type: none"> <li>- Reducing our environmental impacts by keeping them under control</li> <li>- Contributing to Türkiye’s carbon neutrality target</li> <li>- Improving zero waste management</li> </ul>	<p><b>Governance</b></p> <ul style="list-style-type: none"> <li>- Management based on sustainability principles</li> <li>- A transparent, participatory, and innovative administrative structure</li> <li>- Working with a continuous improvement perspective</li> <li>- Developing R&amp;D activities</li> </ul>	

## OUR CONTRIBUTIONS AND COLLABORATIONS FOR SUSTAINABLE DEVELOPMENT GOALS

Related SDG	Project Name	Collaborating NGO or Public Institution	Collaboration Start Date	Collaboration End Date
	Livestock, Beekeeping and Small Livestock Farming	Biga District Directorate of Food, Agriculture and Livestock -Biga Red Meat Union -Çanakkale Beekeepers Union	2007	Ongoing
	İÇDAŞ Agricultural Practices	-Çanakkale Provincial Directorate of Food, Agriculture and Livestock -Biga District Directorate of Food, Agriculture and Livestock	2007	Ongoing
   	İÇDAŞ Sports Club	-Türkiye Basketball Federation -Türkiye Chess Federation -Türkiye Archery Federation -Türkiye Sailing Federation -Türkiye Swimming Federation -Çanakkale Provincial Directorate of Youth and Sports -Çanakkale Basketball Provincial Representative -Çanakkale Chess Provincial Representative -Çanakkale Sailing Provincial Representative -Çanakkale Swimming Provincial Representative -Çanakkale Governorship -Biga District Governorship -Canakkale Municipality -Karabiga Municipality	2010	Ongoing
 	Radiation Safety	Nuclear Regulatory Authority Turkish Energy, Nuclear and Mineral Research Agency	Continuously	Ongoing
 	Water Management Project	Ministry of Environment, Urbanization and Climate Change Ministry of Agriculture and Forestry	2008	Ongoing
	R&D Activities	TÜBİTAK Ministry of Environment, Urbanization and Climate Change	2008	Ongoing
  	Renewable Energy Generation with WPP	Ministry of Energy and Natural Resources General Directorate of Renewable Energy	2014	Ongoing
  	Electricity Generation from Cooling Water Discharge with HEPP	Ministry of Energy and Natural Resources	2011	Ongoing
  	Renewable Energy Generation with SPP	Ministry of Energy and Natural Resources	2018	Ongoing
	Investigating the possibilities of using steel mill slag as "Coastal Port Embankment Aggregate, Railway Ballast Material and Mineral Fertilizer in Agriculture" and developing a legislative proposal	Turkish Steel Producers Association (TÇÜD) and Istanbul Technical University (İTÜ)	2018	Ongoing

Related SDG	Project Name	Collaborating NGO or Public Institution	Collaboration Start Date	Collaboration End Date
	Main Sponsorship for Parion Ancient City Excavations	Ministry of Culture and Tourism	2008	Ongoing
	Main Sponsorship for Apollon Smintheion Excavations	Ministry of Culture and Tourism	2011	Ongoing
	Main Sponsorship for Troy Excavations	Ministry of Culture and Tourism	2015	Ongoing
	Main Sponsorship for Assos Excavations	Ministry of Culture and Tourism	2016	Ongoing
	Main Sponsorship for Troas Excavations	Ministry of Culture and Tourism	2017	2028
	Maydos Kilisetepe Mound	Ministry of Culture and Tourism	2018	Ongoing
	Air Quality Monitoring by Continuous Emission Measurement System	Ministry of Environment, Urbanization and Climate Change	2015	Ongoing
	Air Quality Monitoring for Industrial Facilities Impact Area	Ministry of Environment, Urbanization and Climate Change	2010	Ongoing
	Continuous Monitoring System for Wastewater Monitoring for Cooling Water Discharge	Ministry of Environment, Urbanization and Climate Change	2012	Ongoing
	Biga Peninsula Environmental Monitoring Project	TÜBİTAK Marmara Research Center	2010	2021
	Monitoring Biodiversity in vicinity of the facility	İÇDAŞ	2013	Ongoing
	Carbon Verification (Gold Standard)	Gold Standard	2020	Ongoing



We, as İÇDAŞ, have  
reduced our greenhouse  
gas emissions by **5%**.



## OUR SUSTAINABILITY GOALS

In 2022, we made significant progress towards the goals we set in 2021 and before. Our goals are given below.

Our Strategic Sustainability Issues	Our Goals	Completion Target	Completed/New Targets
<b>Economic Performance</b>			
<b>National and Local Economic Contributions</b>	4 units of 6,700 DWT Stainless chemical tankers	2026	Ongoing
	2 units of 4,500 DWT Stainless tanker ships	2022	Completed in 2022
	1 unit of tugboat for our port services	2024	to be started in 2023
	1 unit of 12,500 DWT General Cargo Ship	2024	to be started in 2023
	To increase our employment with our new investments	Continuously	579 new employees were recruited in 2022
	To construct dry dock additional coastal facilities	2024	Started in 2022. It is ongoing.
	To build a flat steel production plant	2028	Preparation of the EIA report was started in 2022. The process is ongoing.
	To build Special Wire Rod Steel Production Plant	2022	Completed and production started in 2022
	To build concrete bundle and concrete wire production plant (PC-WIRE)	2023	Completed and production started in 2022
<b>Social Performance</b>			
<b>Occupational Health and Safety</b>	To reduce the frequency and severity of accidents	Continuously	Training activities are continuously ongoing. 2022 accident frequency rate is 26.79%.
	To provide OHS training to 100% of our employees	Continuously	OHS training was provided to all new employees in 2022.
	To provide OHS and environmental training to 100% of our subcontractors	Continuously	OHS and environmental training were provided to all subcontractors who started work in 2022.
	To increase the total OHS training time	Continuously	Search on training opportunities that can contribute to our employees is ongoing
<b>Employment</b>	To increase the satisfaction of our employees	Continuously	Satisfaction surveys are conducted to monitor and improve physical conditions. Investments for improving working conditions are continuously in progress
	To use the Suggestion System (İÇÖS) effectively.	Continuously	A total of 855 suggestions were collected until the end of 2022; 313 of these suggestions were implemented.
<b>Ethics</b>	To keep the number of female employees above 2%.	Continuously	In 2022, our female workforce percentage was 2.62%
	To keep the number of unionized employees above 50%.	Continuously	In 2022, the ratio of unionized employees to all employees was 54.41%
	To keep the number of child employees at 0%.	Continuously	In 2022, there is no child employee in İÇDAŞ and subcontractor companies serving İÇDAŞ.

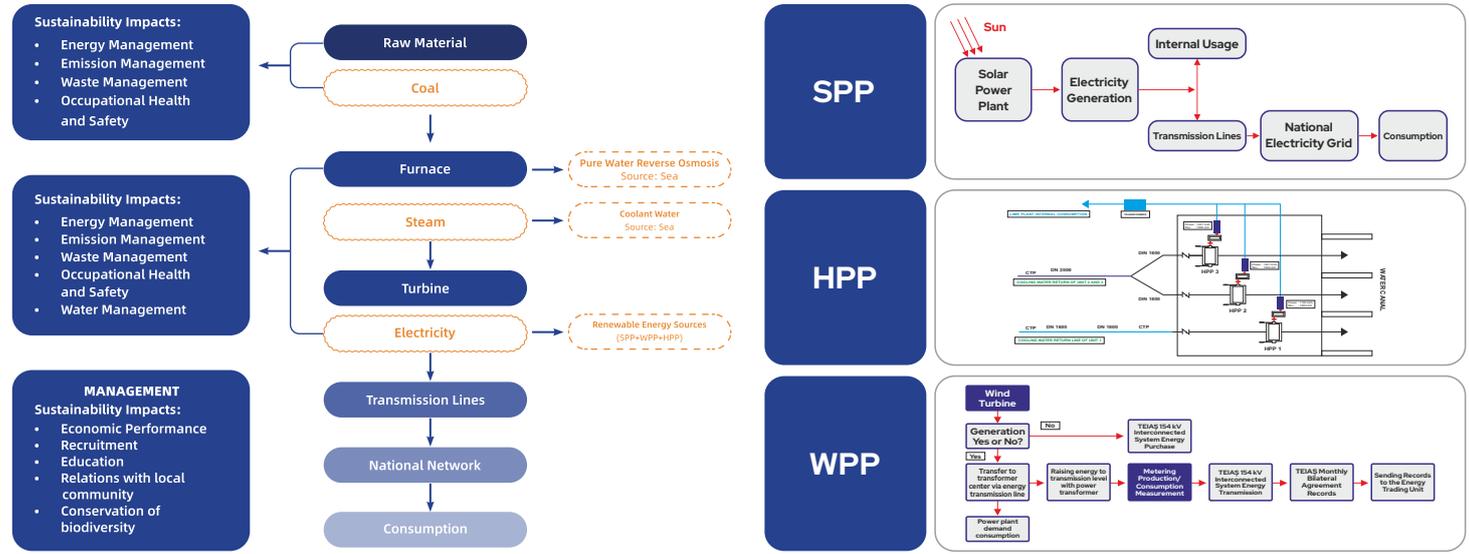
Our Strategic Sustainability Issues	Our Goals	Completion Target	Completed/New Targets
<b>Relations with the Local Community</b>	To continue our social investments with a focus on education, sports and culture	Continuously	We continue to work on sports and cultural investments within the İÇDAŞ Sports Club.
	By welcoming visitors to our facilities from 2011 onwards, we aim to provide a reputable corporate perception through direct observation	Continuously	Due to the global Covid-19 pandemic in 2020, facility tours were temporarily suspended. As of 2022, facility visits have resumed, and we have reopened our facility visits to high school and university students. These visits also include NGOs (Non-Governmental Organizations) and relevant public institutions and organizations we are affiliated with."
	To introduce 200 young people to swimming, 300 young people to sailing and 300 young people to surfing every year	Continuously	Participation exceeded the targeted numbers.
	To increase the number of students within the Sports Club	Continuously	In 2022, a total of 535 students were reached, 234 of whom were licensed.
	To continue the main sponsorship of Parion excavations	2026	Excavations are ongoing.
	To continue sponsorship of Apollon Smintheion excavations	2025	Excavations are ongoing. In 2022, Apollon Smintheion archaeological site was visited by 15,889 people
	To continue sponsorship of Troy excavations	2025	Excavations are ongoing. In 2022, Troy archaeological site and museum were visited by 487,309 people.
	To continue sponsorship of Alexandria Troas excavations	2028	Excavations are ongoing. In 2022, Alexandria Troas archaeological site was visited by 13,126 people.
	To continue sponsorship of Assos excavations	2024	Excavations are ongoing. In 2022, Assos archaeological site was visited by 169,146 people.
To continue sponsorship of Maydos Kilisetepe Mound Excavation Area	2028	Excavations are ongoing.	
<b>Environmental Performance</b>			
<b>Emission Management</b>	To reduce road transportation, focusing on rail and maritime transportation	Continuously	In 2022, we carried out our logistics activities mainly by sea and rail. In 2021, we achieved a great success by reducing our transportation impact target of 1% by 25%.
	To increase Primary Material Utilization and Material Efficiency in Liquid Steel Production	Continuously	In 2022, our material efficiency was set at 82%. In 2022, our material efficiency target was 81.58%.
	To increase the total number of planted tree to 400,000	2023	By the end of 2022, a total of 288,600 trees were planted.
	To monitor and publish air quality in our facility impact area online	Continuously	Air quality monitoring station's periodic maintenance is conducted. Air quality data collection continues throughout the year and the data being transmitted online to the Ministry.
	To keep stack emissions below legal limit values.	Continuously	In 2022 by keeping our data below the legal limit values we achieved a reduction in emission emissions.

Our Strategic Sustainability Issues	Our Goals	Completion Target	Completed/New Targets
<b>Waste Management</b>	To reduce the amount of waste going to landfill by 5%	2022	R&D studies are being carried out for the use of thermal power plant ashes in areas such as aerated concrete, cement, lime, etc. Our efforts to achieve zero waste are ongoing.
	To investigate the possibilities of using steel mill slag as "Coastal Port Embankment Aggregate, Railway Ballast Material and Mineral Fertilizer in Agriculture" and developing a legislative proposal. Turkish Steel Producers Association (TÇÜD) and Istanbul Technical University (İTÜ)	2024	At the end of 2018, project studies were initiated. Work continues until 2022.
	Efficient use of scrap and alloy materials for steel production in our steel production facilities.	Continuously	In 2022, our facilities operated with 92.21% efficiency. There was a 0.29% decrease compared to 2021.
	To reduce municipal waste sent to landfills	Continuously	In 2022, the amount of municipal waste per capita sent to landfills decreased by 27.82% within the scope of separate collection at source.
	To increase the amount of waste sent for recycling	Continuously	In 2022, the amount of waste generated in our facilities and our recovery rates are given in the Waste Data section of our Report. We recovered 60% of our waste.
	To reduce the amount of slag, chimney dust, and scale generated as a result of our main activity, steel production.	Continuously	In 2021, the ratio of our wastes to total steel production was 236.95 kg/ton of steel, while in 2022 it was 272.91 kg/ton of steel. With an increase of 15%, the target was not achieved.
<b>Water Management</b>	To reduce water consumption by 2% per ton of steel produced.	Continuously	Our water consumption decreased from 0.85 m3 per ton of steel in 2021 to 0.80 m3 per ton of steel in 2022, achieving a 6.33% reduction, meeting our target.
	To keep the carbon content in the ash of the Değirmencik Thermal Power Plant's 3 units below 10%:	Continuously	The year-end average for 2022 was 8.76%, surpassing our target of 10%.
	To continue obtaining fresh water from the sea to conserve limited water resources	Continuously	In 2022, we continued to meet all the water needs of our Değirmencik Integrated Plant and Bekirli Thermal Power Plant from the sea.
<b>Energy Management</b>	To reduce energy consumed per ton of steel produced	Continuously	In 2022, we reduced our energy reduction target of 1% by 3.51% and achieved our target.
<b>Biodiversity Protection</b>	To share biodiversity monitoring results in the region where our Biga facilities are located with our stakeholders on our website	Continuously	In 2022, we continue to share all our biodiversity-related activities and living inventories in our region on İÇDAŞ website through an interactive platform on our website.
	To conduct ornithological and wildlife monitoring at WPP sites	Continuously	In 2022, the period between March 1 and October 30 was monitored and reported by our biologist.
	Artificial reef monitoring studies	Continuously	The artificial reefs we have created are monitored twice a year during fish breeding seasons.
	To continue temperature monitoring in Cooling Water Canal 1	Continuously	Temperatures continue to be actively monitored. In addition, our wastewater measurements are shared live with the Directorate General of Environment and Urbanization (MoEUU) with 3 SAİSs.

# Sustainability Impacts In İÇDAŞ Value Chain (Steel Production)



## Sustainability Impact In İÇDAŞ Value Chain (Energy Production)



## Sustainability Impact In İÇDAŞ Value Chain (Ship Production)

- Design and Project Planning Raw Material Supply Activity:** Design in required quality
- Production Ship Construction Processes Sustainability Impacts:**

  - Occupational Health and Safety
  - Energy Management
  - Emission Management
  - Waste Management
- Production Sector: Maritime Transport Sustainability Impacts:**

  - Occupational Health and Safety
  - Emission Management
  - Waste Management
  - Water Management
- Post-consumption Salvaged Steel Sustainability Impacts:**

  - Occupational Health and Safety
  - Emission Management
  - Waste Management
- Steel Production Plants Sustainability Impacts:**

  - Occupational Health and Safety
  - Recovery





2023

2022

06

GOOD GOVERNANCE



## GOOD GOVERNANCE



*"Our success is possible with the involvement of all our stakeholders in our processes."*



For a more sustainable future, we need to change in all areas. Our strategy, policies, and vision are focused on change. We are taking concrete steps based on these foundations. On the other hand, we can only be even more successful if all our stakeholders are involved in our processes. To achieve sustainable development goals in our field, we establish direct contact with relevant institutions, citizens, and non-governmental organizations in our field of work, and plan the future together.

**Zeynep ASLAN; Corporate Communication Officer**





**MISSION**

**VISION**

## Mission

- To continue our success as a profitable and responsible industrialist with our outstanding products,
- To be a leading company that fulfills its responsibilities towards society and the environment by conducting our business in accordance with moral values,
- To ensure that our working environment is safe and efficient and to treat our employees fairly,
- Providing opportunities for teamwork, open communication, personal reliability and development,
- To continue all our activities in the best way possible by adhering to our tradition and culture.

**Vision:** To be a leading company in the steel industry offering products and services of universal quality and standards through high productivity targets and investments.

## RESPECTING HUMAN RIGHTS

The basic components of İÇDAŞ's Human Rights Policy are based on the United Nations Universal Declaration of Human Rights, International Labor Organization (ILO) Conventions, international human rights norms and national legislation. With our Human Rights Policy, we are committed to respecting the human rights of our employees.

In this context, we support the strengthening of health and safety, freedom of association, the elimination of forced labor, child labor, and discrimination, paying salaries that are in line with established criteria in the industry according to local market assessments, and pay equal pay for each position by its position, ensure workplace safety and create a fair and sustainable work environment for all employees by prohibiting physical abuse, sexual and other forms of harassment, verbal abuse and other forms of intimidation.

Our Human Rights Policy is available at [www.icdas.com.tr](http://www.icdas.com.tr).

We welcome feedback and dialog with interested parties regarding this Policy. Any feedback and comments regarding this Policy can be sent to the address below:

[https://www.icdas.com.tr/pages/8939/3730/f/en-US/Contact\\_Form.aspx](https://www.icdas.com.tr/pages/8939/3730/f/en-US/Contact_Form.aspx)

All kinds of ethical violations can be reported via this address, necessary measures are taken by the company to prevent possible retaliation against the notifier and necessary investigations are carried out in a confidential manner.

The provisions of İÇDAŞ Human Rights Policy include minimum standards, not maximum standards, and our company aims to reach a level even higher than these standards.

## STAKEHOLDER ENGAGEMENT

As İÇDAŞ, we prioritize engaging with our stakeholders and involving them in every aspect of our operations, from sourcing raw materials to production, sales, marketing, and investment decisions. Through ongoing communication, we share our activities, gather their input, and adjust our objectives accordingly. We are sharing the table below, which outlines our communication with stakeholders.

Our Stakeholders	Expectations of Our Stakeholders	Communication Platform	Communication Frequency
Workers and Trade Unions	Possibility to use union rights, working environments by OHS rules, increasing fringe benefits	İÇÖS	Continuous
		Internet	Continuous
		OHS Meeting	Monthly
		Notice Boards	Continuous
Shareholders	Compliance with all legal obligations, Sustainability, Stability, High efficiency	Executive Board Meeting	Weekly
Customers	Quality and cheap price, timely delivery of the desired quality product, environmentalist technologies used in product production, environmentally sustainable products,	Call Center and Customer Portal	Continuous
		Seminars-congress-fairs	Several times a year
		Mutual visits	Continuous
		Internet	Continuous
		Product Information Brochure	Several times a year
		Factory visit and information meeting	Once a year
Public and Regulatory Authorities	Compliance with all environmental and other relevant legal obligations, Supporting social and environmental investments in the region	Face-to-face meeting	Indefinite
Local Society and Governments	Employment of local people, increasing community investments	Face-to-face meeting	Several times a week
Members of the Media	Transparency	Face-to-face interviews	Weekly
		Telephone, e-mail, social networks	Several times a week
Suppliers	Clarity of relevant instructions, Consistent approach to contracts involving environmental practices	Ethical Procurement Policy Disclosure	Once a year
Professional Chambers/ Chambers of Industry	Fulfillment of legal membership requirements, Participation in activities	Memberships	Monthly
		Presentations on the environment, OHS, etc.	Several times a year
Civil Society Organizations	Fulfillment of legal membership requirements, Participation in activities	Memberships	Monthly
Employee Families	Good working conditions in terms of environmental and occupational health and safety, Consulting them about work-related changes	Cultural visits	Several times a year
		Picnics and social organizations	Once a year
Universities and Research Institutions	Financial and technical support for academic research	Factory visits and presentations	Once in a two months
		Vocational courses	Continuous
Student / Potential Employees / Interns	Scholarship opportunities, increased employment	Factory visits and presentations	Once a month
		Presentations on the environment, OHS, etc.	1-2 times a week

## MATERIALITY ANALYSIS

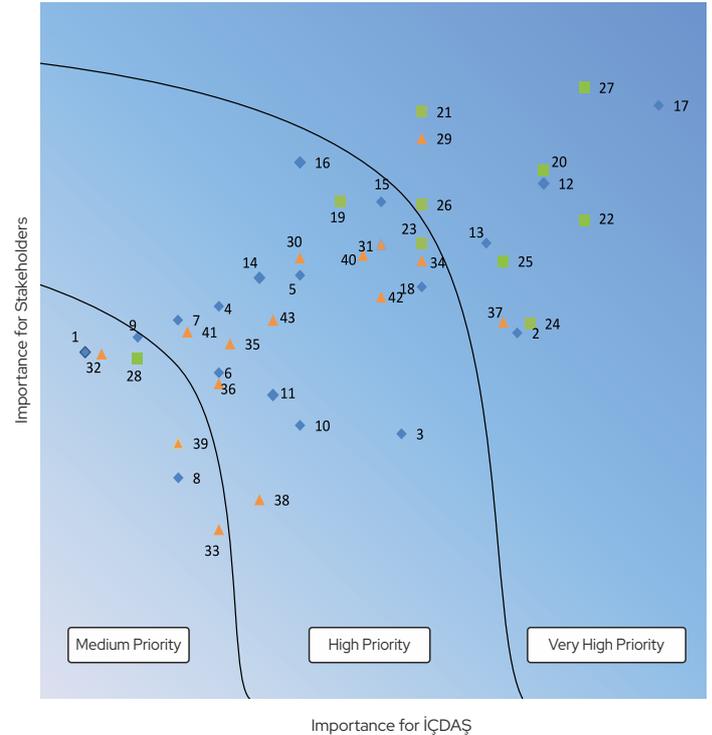
In addition to our continuous communication, we also collect and analyze the detailed opinions of our stakeholders by organizing an extensive survey annually. For this, we assess the priority issues and their impacts throughout our value chain that create or have the potential to create an impact.

In 2022, we conducted an online survey consisting of 6 sections, 45 questions for our employees and 5 sections, 42 questions for other stakeholders to determine the importance of the 43 priority issues identified for both stakeholders and İÇDAŞ. In our previous sustainability report, the survey, which was filled out by 546 people, was completed by 1509 stakeholders in our 2022 reporting work.

The answers to the survey questions were determined as medium priority, high priority, very high priority, and no opinion. The scoring table for the answers was created as follows. At the end of each question, the opportunity to make their opinions and suggestions in writing was also provided.

Answer Given	Score
Medium priority	1
High priority	2
Very high priority	3
No Opinion	No scores given.

We share below the results of our stakeholder survey analysis.



Very High Priority	
2	Climate change risk and opportunity assessment
12	Information security
13	Digitalization
17	Product quality
20	Renewable energy generation
21	Energy efficiency
22	Water resource management / Water efficiency
24	Protection of groundwater and surface water resources
25	Conservation of biodiversity
26	Climate change mitigation and reducing greenhouse gas emissions
27	Waste management and zero waste
29	Occupational health and worker safety
37	Impact on local people

High Priority	
3	Personnel rights
4	Risk analysis and compliance
5	İÇDAŞ's position in the market
6	Indirect economic impacts
7	Buying domestic goods and services
10	Fighting internal corruption
11	Anti-competitive situations and anti-monopoly measures
14	Innovation
15	Business ethics and transparency
16	Corporate management
18	Ensuring the confidentiality of customer data
19	Using recyclable or sustainable raw materials
23	Wastewater management
30	Employee welfare
31	Personnel training and İÇDAŞ Academy Module
34	No child labor
35	Taking precautions against forced labor
36	Training of personnel on human rights
38	Stakeholder participation in the decision-making process including local people
40	Health and safety of customers
41	Informing customers about the features and use of products
42	Social and cultural supports provided to the operation region and local people
43	Pandemic management

Medium Priority	
1	Production cost
8	Economic supports provided to the operation region and local people
9	Supply chain management
28	Evaluation of environmental compliance in supplier selection
32	Gender equality and Non-discrimination
33	The Right to Organize and Union
39	Evaluation of compliance with employee rights and human rights in supplier selection

## PRIORITIES OF OUR STAKEHOLDERS

The table below shares the top three areas prioritized by stakeholders who completed the survey.

<b>Employees</b>	<ol style="list-style-type: none"><li>1- Product Quality</li><li>2- Occupational Health and Worker Safety</li><li>3- Energy Efficiency</li></ol>
<b>People Living in İÇDAŞ Activity Area</b>	<ol style="list-style-type: none"><li>1- Corporate Governance</li><li>2- Energy Efficiency</li><li>3- Wastewater Management</li></ol>
<b>Public Institution/Regulatory Organization</b>	<ol style="list-style-type: none"><li>1- Impacts on Local Communities</li><li>2- Child Labor</li><li>3- Waste Management and Zero Waste</li></ol>
<b>Customer</b>	<ol style="list-style-type: none"><li>1- Waste Management and Zero Waste</li><li>2- Purchasing Local Goods and Services</li><li>3- Information Security</li></ol>
<b>Civil Society Organization</b>	<ol style="list-style-type: none"><li>1- Use of recycled or sustainable raw materials</li><li>2- Climate Change Mitigation and Reducing Greenhouse Gas Emissions</li><li>3- Renewable Energy Production</li></ol>
<b>Supplier</b>	<ol style="list-style-type: none"><li>1- Product Quality</li><li>2- Occupational Health and Worker Safety</li><li>3- Energy Efficiency</li></ol>
<b>University/Research Institution</b>	<ol style="list-style-type: none"><li>1- Climate Change Risk and Opportunity Assessment</li><li>2- Innovation</li><li>3- Renewable Energy Production</li></ol>
<b>Senior Management</b>	<ol style="list-style-type: none"><li>1- Product Quality</li><li>2- Waste Management and Zero Waste</li><li>3- Protection of Ground and Surface Water Resources</li></ol>



**We convey our efforts through continuous communication with our stakeholders, gathering their input, and updating our goals**





**07**

**İÇDAŞ IN THE ECONOMY  
AND SECTOR**



## CUSTOMER PROFILE

### Electricity Customer Distribution (by Number of Subscribers)

Electricity Customers	2020	2021	2022
Finance	28.51%	31.13%	0.03%
Tourism	3.94%	4.37%	9.20%
Industry	3.26%	2.22%	6.23%
Food	2.58%	14.27%	10.18%
Textile	0.36%	0.41%	7.79%
Logistics	32.87%	21.09%	29.09%
Other	28.48%	26.51%	37.47%

### Electricity Customer Distribution (by Energy Consumption)

Electricity Customers	2020	2021	2022
Finance	0.92%	0.73%	0.07%
Tourism	1.07%	1.66%	2.54%
Industry	25.50%	8.39%	78.08%
Food	2.00%	1.32%	0.21%
Textile	0.18%	0.42%	0.89%
Logistics	1.95%	3.52%	1.95%
Other	17.00%	66.00%	14.31%
Wholesale	51.39%	17.98%	1.94%

### Steel Sales Amount and Customers

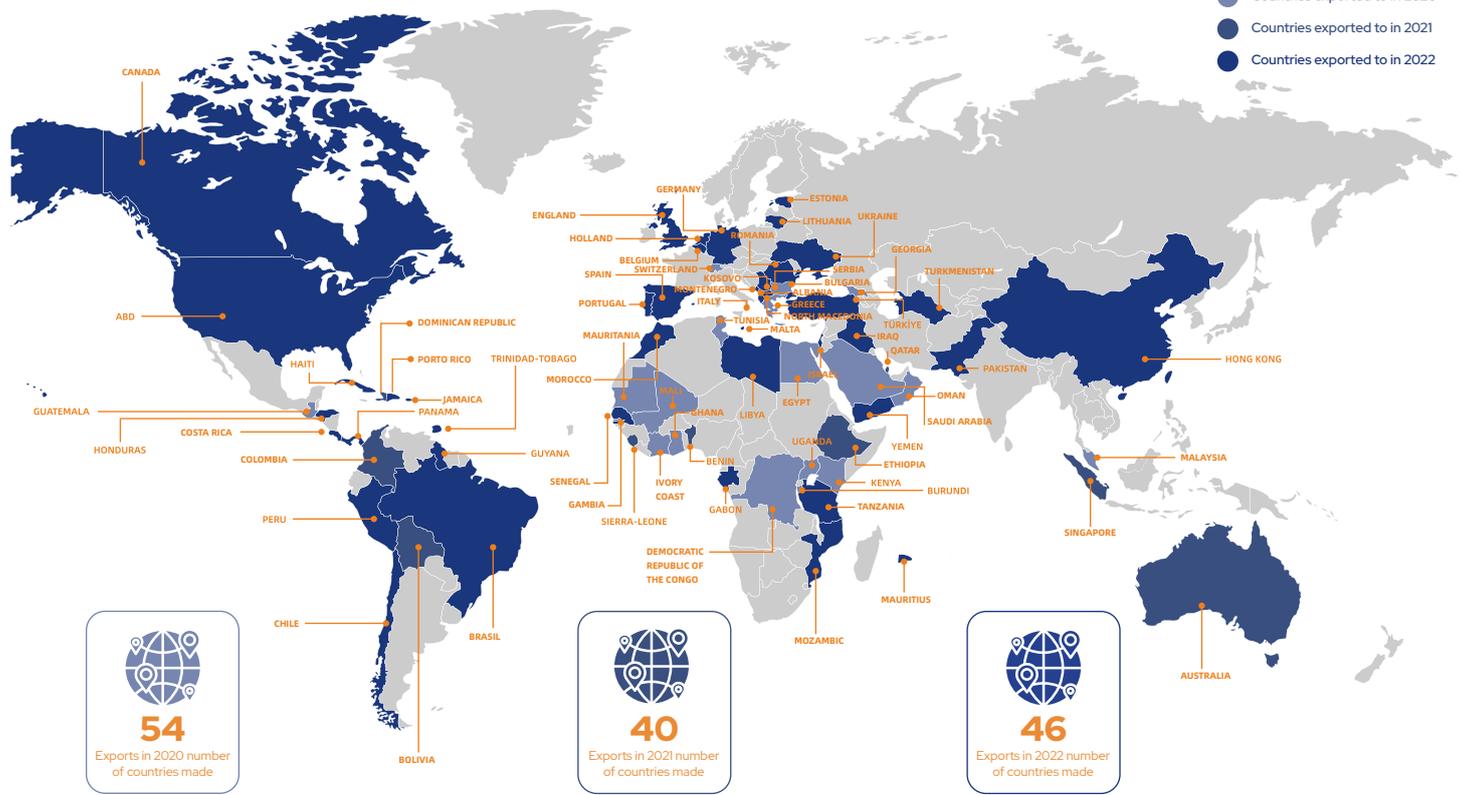
Steel Customers	2020	2021	2022
Total Domestic Sales (mt)	1,338,317.26	1,386,462.00	1,524,700.67
Number of end users-Domestic Market	519	643	695
Number of traders-Domestic Market	59	68	67
Number of traders-Exports	81	85	79
Total Exports (mt)	1,828,869.47	1,993,255.39	1,691,420.59
Number of end users-Exports	15	13	17



# COUNTRIES WE EXPORT

In 2022, the main markets we serve are Asia, North America, South America, Africa, Europe and the Middle East.

- Countries exported to in 2020
- Countries exported to in 2021
- Countries exported to in 2022



## RESPONSIBLE SUPPLY CHAIN

At İÇDAŞ, we are conscious of the presence of a sustainable supply chain for sustainable production, and we continue our operations with this awareness. We meet the raw material and other needs of our company from all around the world, prioritizing local suppliers. Priority raw materials like scrap and coal are sourced from abroad, ranking first among the materials imported from foreign sources. On the other hand, our needs for items such as fuel, machinery, and equipment are supplied within the borders of Türkiye. In total, 41.1% of our supply needs are met domestically, while 58.9% are sourced from abroad.

Purchase Amount	The approximate value of payments made to suppliers (TL)	2022, Ratio (%)
Imported Amount	30,155,000,000	58.9
Domestic Purchase Amount	21,018,411,278	41.1
<b>Total</b>	<b>51,173,411,278</b>	<b>100.0</b>

### Supplier Information

İÇDAŞ Suppliers	2022		Foreign
	Domestic		
	Other than Scrap	Scrap	
<b>Total number of suppliers</b>	13,132		216
<b>By Country or Region</b>	Marmara: 2.525 units Aegean: 150 units Central Anatolia: 290 units East Anatolia: 2 units Black Sea: 31 units South East Anatolia: 6 units Mediterranean: 45 unit	Marmara: 108 Aegean: 8 Central Anatolia: 12 Mediterranean: 4	European Union, EFTA (European Free Trade Association), America, Africa, China, Colombia, England, India, Israel, Russia, Ukraine, Brazil, Bosnia and Herzegovina, Canada, South Korea, Libya, Malaysia, Mozambique, Lebanon, Adriatic, Türkiye, Kazakhstan, Mexico, Japan, Lithuania, Czech Republic
<b>Type of Suppliers</b>	Subcontractors, intermediaries, wholesalers, license holders, auditors, etc.		Scrap, Coal, Pig Iron, HBI (Hot Briquetted Iron), Billet Iron, Auxiliary, and Operational Materials, and Spare Parts



As İÇDAŞ, we give importance to  
our **R&D and innovation** activities  
and technology for sustainable,  
efficient and environmentally  
friendly production



## R&D AND INNOVATION STUDIES

As İÇDAŞ, we give importance to our R&D and innovation activities and technology for sustainable, efficient and environmentally friendly production. We also took steps in 2022 within the scope of innovation, which is the 9<sup>th</sup> of the sustainable development goals.

R&D and Innovation	Purpose
Ferrous Sulphate Dehydrant Fertilizer	<p><b>Using waste in agricultural activities</b></p> <p>Ferrous Sulphate fertilizer (ferrous sulphate heptahydrate) is generated as waste from the pre-stressed concrete bundle and wire plant, which was started to be installed in 2022 and commissioned in 2023. With a zero-waste perspective, R&amp;D work has been initiated to utilize this waste in agricultural activities and an application has been made for this by-product to the Ministry of Environment, Urbanization and Climate Change. It is expected that 3,364 tons of iron sulfate fertilizer will be generated annually. Ferrous Sulphate is a fertilizer that can be used in soil enrichment studies in agriculture and used to meet the iron needs of plants.</p>
Humidification Project in Ash Storage Areas	<p><b>Preventing air pollution, Reducing natural resource consumption</b></p> <p>To prevent air pollution from the ashes in our landfill, it is aimed to provide the water used for humidification from treated water. In 2022, with the investment we made, treated wastewater was started to be used for ash humidification. In this way, natural resource consumption was reduced.</p>
Car Wash Project	<p><b>Reducing natural resource consumption</b></p> <p>It is aimed to provide the water used for washing the vehicles used inside and outside the facility from the treatment plant. The quality of the water treated in the wastewater treatment plant was increased and started to be used in vehicle washing activities. In this way, consumption of natural resources was reduced.</p>
Fodder Pea and Triticale Cultivation	<p><b>Increasing productivity in agriculture and livestock</b></p> <p>To increase productivity in agriculture and livestock and to meet the needs of our animal husbandry activities with our own work, the production of two new products has started. For the first time, field peas and triticale were planted in 2022.</p>



R&D and Innovation	Purpose
Agricultural Research Authorization	<b>Agricultural production:</b> İÇDAŞ Private Sector Agricultural Research Organization has registered 3 different plant groups; field crops, vegetables, and fruit. In addition, a Seed Producer Certificate was obtained in 2021
C52 Closed casting system	<b>Steel production:</b> Special quality steel production
Vacuum degassing system	<b>Steel production:</b> Special quality steel production
Coretemp and castemp temperature measurement	<b>Process safety:</b> Continuous and precise temperature measurement and forecasting systems
Empere Regulation system	<b>Energy saving and productivity increase:</b> A system that makes arc furnace operation more stable, increasing energy saving and productivity
Miwenti burner systems	<b>Energy saving and productivity increase:</b> Energy savings and increased productivity due to effective burner control enabled by a revamp of the arc furnace burner design
Use of HEN Celox Slac	<b>Steel production:</b> Clean steel production by controlling, monitoring, and adapting the oxygen activity between steel and slag in ladle furnace to working practice
Artificial Intelligence-Based OHS Video Analysis Software Platform	<b>Ensuring a safe work environment using artificial intelligence-based platform</b> By establishing the "Artificial Intelligence Based OHS Video Analysis Software Platform" system, we monitored the compliance of our employees with occupational health and safety rules 24 hours a day, 7 days a week. The software we use stays in constant communication with the 20 cameras we installed in the field and monitors the compliance of our personnel with the occupational health and safety rules we have defined (use of personal protective equipment, speed control, limited area passage violation, etc.), and reports unsafe situations and behaviors. Analyzing the data obtained from the cameras in the field provides information and suggestions to our OHS teams to take strategic measures and create safe working environments.



## RISK AND OPPORTUNITY ANALYSIS

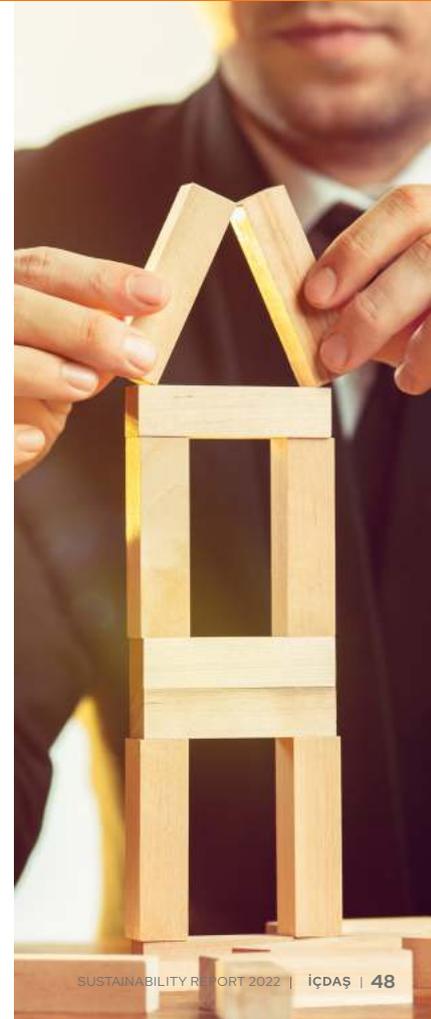
İÇDAŞ aims to prevent potential risks through risk identification, assessment, risk processing and risk review processes within the scope of the Risk and Opportunity Identification Procedure.

### Main Steps of the Enterprise Risk Management Process

<b>Identification of Risks</b>	Risks are identified using methods such as brainstorming, internal analysis, previous data, and workflow analysis.
<b>Assessment of Risks</b>	Corporate risks are assessed through the QDMS / Corporate Risk Assessment Module taking into account factors such as the impact on the organization, replacement cost, impact on energy performance, impact on reputation, and the potential damage in terms of legal and regulatory obligations (customer information), based on a risk impact assessment using a risk score matrix.
<b>Risk Management</b>	As a result of the risk assessment, risk related to all processes are determined. Risk management options are as follows: <ul style="list-style-type: none"> <li>- Accepting the risk (Continuing to live with the risk)</li> <li>- Risk avoidance (stepping back because it is risky)</li> <li>- Risk mitigation (Taking measures to reduce the level of risk)</li> <li>- Transfer of risk (placing the risk under the responsibility of another organization)</li> </ul>
<b>Reviewing Risks</b>	After risk management, the period in which the risk will be monitored is determined. Risks may change in terms of impact and probability as a result of changing conditions or measures taken over time. Again, since changing conditions may reveal new risk areas, the identified risks and the risk management process are reviewed in every aspect.

According to the World Economic Forum's 2023 Global Risks Report<sup>8</sup>, the two biggest global risks in the 10-year period are considered to be inadequate mitigation and adaptation to climate change.

<sup>8</sup> <https://www.weforum.org/reports/global-risks-report-2023>



Risk/ Opportunity Type	Risk/ Opportunity Description	Physical Risks/ Opportunities (Acute/Chronic)	Transition Risks/Opportunities (Operational/Market/ Reputation/Technology)	Risk Management
<b>Credit</b>	Possible effects of disruptions in the Supply Chain due to Climate Change on production	Risks due to the supply chain being located in areas where extreme weather events are more frequent	Bank and investor approaches to financing high carbon emission sectors	Creating alternative supply networks and organizing support programs to strengthen and develop suppliers
<b>Market</b>	Market value and price of inputs, as well as potential changes in demand and market pricing for our country	Increasingly severe extreme weather can pose risks to input pricing as well as market demand (Acute risk) Changes in rainfall patterns and weather conditions can affect the price of renewable electricity and the success of our SPPs, WPPs, and HPPs. This can be both a risk and an opportunity (Chronic risk)	Greater risk around energy prices as an input cost as we move to production methods that are more dependent on electricity as a primary power source Steel demand is influenced by the demand for renewable infrastructure and the circular economy. Increasing demand for steel products with low carbon emissions Increased exposure to changes in the price and availability of scrap as we move with other companies in the market to lower carbon production, which requires a larger proportion of scrap	Developing our own SPP, WPP, and HPP potential Engage with government and industry groups on scrap policy as well as local approaches to reducing energy prices for industrial companies Incorporate hedging strategies for energy prices into individual business planning processes where relevant Engaging with customers to understand and anticipate their future requirements



Risk/ Opportunity Type	Risk/ Opportunity Description	Physical Risks/ Opportunities (Acute/Chronic)	Transition Risks/Opportunities (Operational/Market/ Reputation/Technology)	Risk Management
<b>Operational</b>	Deficiencies or failures in internal processes, system failures	More frequent or severe extreme weather conditions could cause property damage or business interruption to our own business or our supply chain	Significant transformation projects required to transition to low carbon emission production methods will involve additional operational, technological, and financial risks compared to business as usual.	İÇDAŞ has a strong internal audit system that serves to mitigate the risk of internal control and system failure. Internal audit processes are specifically tailored to include ESG policies and environmental regulations. Water requirement, which is one of the most important inputs, is met from process water recovery and seawater. Groundwater and surface water are not used.
<b>Liquidity</b>	Maintain sufficient cash and cash equivalents to meet financing requirements	-	Greater need for capital expenditures to finance new financing, construction and transformation projects	İÇDAŞ regularly prepares profit and cash flow forecasts. These forecasts include likely levels of demand from key customers and suppliers. The availability and requirements for loans and other financing are monitored and reviewed.
<b>Reputation</b>	Current and potential impacts of negative public opinion on the facility	-	Negative public opinion will pose a reputational risk	İÇDAŞ customer experience process and relations are continuously and regularly monitored. It determines and updates its road maps with the data obtained from these observations. Stakeholders are regularly communicated with and methods (surveys, etc.) through which they can convey their views are regularly monitored. Regular support is provided for local economic and social development.

Risk/ Opportunity Type	Risk/ Opportunity Description	Physical Risks/ Opportunities (Acute/Chronic)	Transition Risks/Opportunities (Operational/Market/ Reputation/Technology)	Risk Management
<b>Employees</b>	Loss of key personnel or failure to retain sufficient personnel with the required skills	Severe or extreme weather events may cause travel disruption (Acute risk) Increased temperature can lead to changes in working patterns, reduced productivity or increased health and safety risk (Chronic risk)	Production methods with lower carbon emissions may require different personnel skills. Ability to attract a new generation workforce to the iron and steel sector	İÇDAŞ provides future-oriented skills training and development to existing employees. A human resources unit has been established and methods and standards are followed in this field.
<b>Technological</b>	Impact of changes in technology on production processes and costs of existing products	-	Changes in the cost of production as a result of the application of new technologies	İÇDAŞ creates plans for technological transformation and makes investments according to these plans. Technological transformation is also realized in areas such as water management, resource management, industrial symbiosis and agricultural production.
<b>Legal Compliance</b>	Cost risk as a result of political, economic, and regulatory activities	-	Changes in carbon pricing and environmental regulatory actions will have a significant impact on our operating costs.	The environment unit monitors the processes to ensure that the impact of changes in policies and carbon pricing mechanisms are taken into account. Meetings of relevant public institutions are attended and opinions on legislative changes are conveyed both through İÇDAŞ and through organizations of which İÇDAŞ is a member. Efforts to reduce carbon emissions will reduce the risk related to carbon pricing mechanisms.

## BUSINESS ETHICS, COMPETITION, CORRUPTION

İÇDAŞ has always been committed to conducting its business responsibly and ethically. As İÇDAŞ, we respect and support international human rights principles that aim to promote and protect human rights, including the United Nations Universal Declaration of Human Rights and the International Labor Organization's Declaration of Fundamental Principles and Rights at Work. Our acceptance of these international principles is consistent with our commitment to improving the workplace, respecting human rights, protecting the environment, and strengthening the communities in which we operate.

We require our suppliers to show the same sensitivity that we show to basic business and competition ethics such as compliance with laws and regulations, supporting freedom of association and the right to collective bargaining, not employing child labor, never allowing forced labor and abuse, not discriminating, ensuring humane living conditions in working conditions and wages of employees, operating by occupational health and safety, protecting the environment, commercial integrity, information security, not allowing bribery and corruption. Within the scope of İÇDAŞ Supply Chain Policy, we promote business ethics, competition ethics, and anti-corruption not only in our organization but also in our entire sector. İÇDAŞ Supply Chain Policy is accessible through [www.icdas.com.tr](http://www.icdas.com.tr).

All of our stakeholders can access our guiding principles and business code of conduct for suppliers, which we have prepared within the scope of our Supply Chain Policy, through our corporate website.

**İÇDAŞ ETHICAL SUPPLY CHAIN POLICY**

İÇDAŞ, in Turkey, leading steel company and exports to more than one hundred countries. The Company operates steel production, as well as energy, sea transportation, shipping, trading and port operations.

Our Company has always endeavored to conduct business responsibly and ethically, and ensure international human rights principles, including the United Nations Declaration of Human Rights and the International Labor Organization's Declaration of Fundamental Principles and Rights at Work. Our acceptance of these international human rights principles, and our dedication to enforcing the principles, supporting human rights, protecting the environment and strengthening the communities where we operate, ensuring the sustainable and long-term success of the Company are our primary objectives.

**THE SUPPLIER CHOICE CRITERIA**

The Supplier Choice Criteria are an important pillar of İÇDAŞ's human rights and sustainable development programs. Incorporating these criteria into the work we do, we ensure that our suppliers are also committed to human rights and sustainable development. The Supplier Choice Criteria are based on the International Labor Organization's Declaration of Fundamental Principles and Rights at Work, the United Nations Declaration of Human Rights, and the United Nations Sustainable Development Goals. The Supplier Choice Criteria are designed to ensure that our suppliers are committed to human rights and sustainable development. The Supplier Choice Criteria are designed to ensure that our suppliers are committed to human rights and sustainable development.

**Laws and Regulations:** The manufacturing and construction of supply materials and services and the provision of services for all applicable local and national laws, regulations and requirements in force.

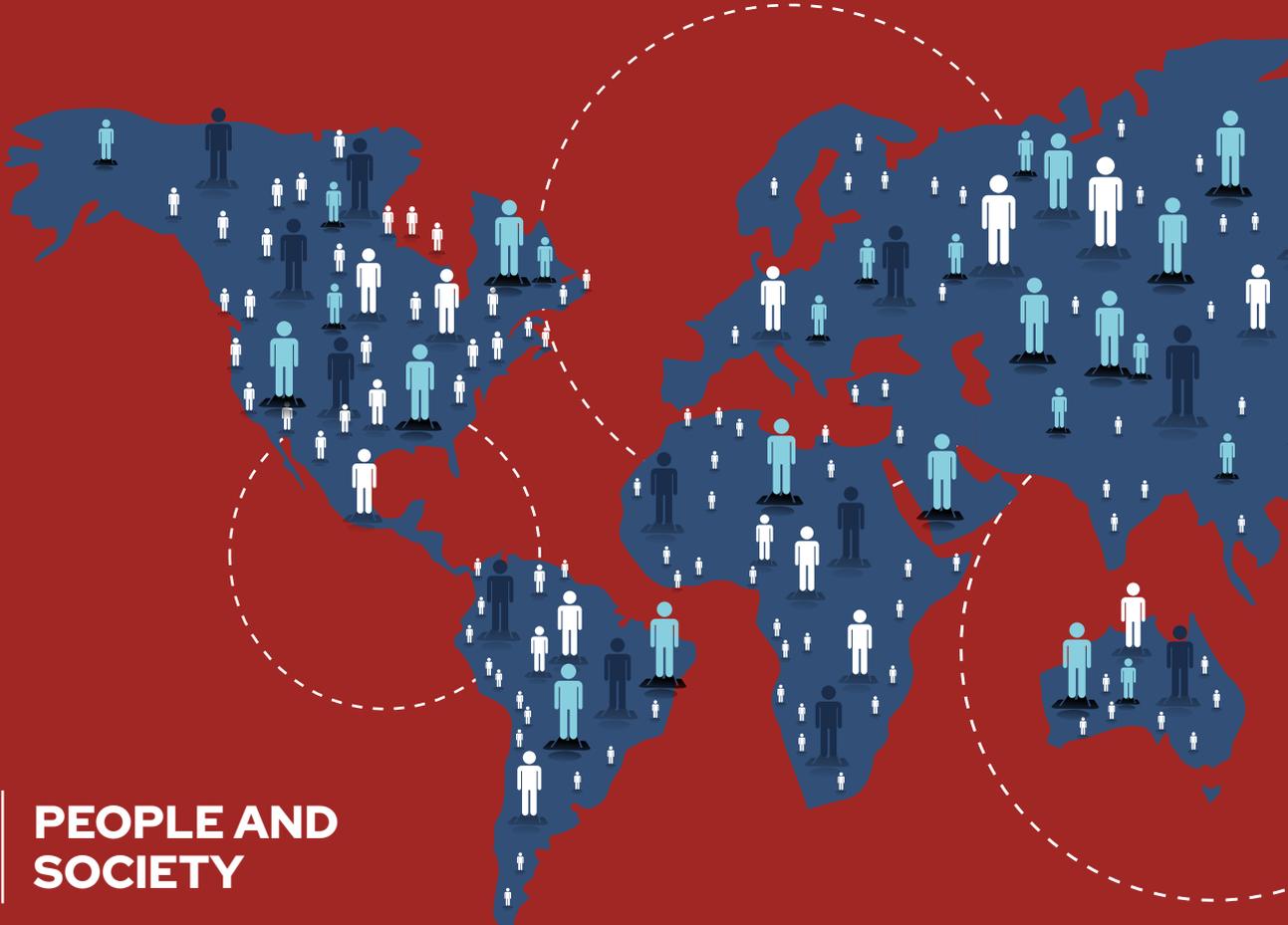
**Freedom of Association and Collective Bargaining:** The manufacturing and construction of supply materials and services and the provision of services for all applicable local and national laws, regulations and requirements in force.

**Prohibit Child Labor:** Comply with all applicable local and national child labor laws.

**Prohibit Forced Labor and Abuse of Labor:** Comply with all applicable local and national laws, regulations and requirements in force.

**Prohibit Discrimination:** Comply with all applicable local and national laws, regulations and requirements in force.





**08**

**PEOPLE AND  
SOCIETY**

## OCCUPATIONAL HEALTH AND SAFETY

- 2003** Occupational Safety and Environment Department was established.
- 2005** In 2005 Occupational Safety and Environment Chiefs were separated and became the Occupational Health and Safety Directorate and Environment Directorate.
- 2007** OHSAS 18001 Occupational Health and Safety Management System Certificate was obtained.
- 2007** Efficient Worker-Employer Award by the Ministry of Science, Industry, and Technology
- 2008** Efficient Worker-Employer Award by the Ministry of Science, Industry, and Technology
- 2008** Best Practice Example-Risk Assessment at the national level by the Ministry of Labor and Social Security
- 2009** Certificate of Contribution to Productivity by the Ministry of Science, Industry and Technology
- 2010** Best Practice Example at National Level - Safe Care by the Ministry of Labor and Social Security
- 2010** Ministry of Labor and Social Security-European Agency for Occupational Health and Safety Award for Accident-Free Production through Culture Change
- 2012** Ministry of Labor and Social Security-European Agency for Occupational Health and Safety Award for Accident-Free Production through Culture Change
- 2016** Golden Suggestion Award by MESS
- 2016** Corporate Social Responsibility Award by TİSK - Tiny Archaeologists
- 2017** Golden Suggestion Award by MESS
- 2018** Hazardous Materials and Safety Unit was established within Occupational Health and Safety.
- 2020** İÇDAŞ Fire Brigade Unit was established
- 2022** Automatic fire detection system installed at 69 new locations.
- 2022** İÇDAŞ Academy Training Module was launched.
- 2022** 3971 m of additional lifeline installed. A total of 17771 m lifeline was reached.
- 2022** Artificial intelligence based OHS Video Analysis Software Platform Service was launched.



We manage the working conditions of each of our employees with the highest level of safety measures by structuring our Occupational Health and Safety policy according to international standards beyond compliance with national legislation. Many risk-based measures such as emergency action plans, fire safety, personnel protective equipment, protective equipment in machines, and emergency exit markings in necessary areas have been taken in our facilities.

Our organization complies with ISO 45001:2018 Occupational Health and Safety Management System and is regularly audited by public institutions and third-party independent auditors and organizations. We have an occupational health and safety perspective that aims to manage and reduce the risk of accidents or disasters rather than managing the disaster or accident.

	Unit	2022
<b>By Gender</b>		
Woman	Person	162
	Ratio	2.62%
Man	Person	6,012
	Ratio	97.38%
<b>By Employment Type</b>		
White-collar Employee	Woman (Person)	109
	Man (Person)	610
Blue-collar Employee	Woman (Person)	53
	Man (Person)	5,402
<b>By Contract Type</b>		
Full-time Employee	Woman (Person)	162
	Man (Person)	6,012
Part-time Employee	Woman (Person)	0
	Man (Person)	0
	<b>Person</b>	<b>6,174</b>



İÇDAŞ had a turnover rate of 5.28% for employees in 2022, and its steady increase over the past 3 years is an indicator of employee satisfaction.

	2020	2021	2022
Employee Turnover Ratio (%)	3.26	4.77	5.28

	2020	2021	2022
The percentage of employees covered by collective labor agreements (%)	51.78	53.79	54.41

KWe regularly collect and record our data on the sites under our control. In our procurement process, compliance with occupational health and safety is evaluated within the evaluation criteria for our suppliers or subcontractors

Our documents created to ensure the health and occupational safety of our employees are listed below. All these documents are carefully followed by our expert team. Documents, lists, procedures, and practices are updated according to current

developments, changes in standards and legislation, and our experiences.

- Risk Assessment Procedure
- Occupational Safety Legislation List
- Legal Compliance Monitoring Table
- Emergency Plans
- Measurement and Monitoring Plan

- There is a Workplace Health and Safety Unit in our enterprise. It is ensured that the health needs of the employees are met 24 hours a day, 7 days a week, with a staff of Occupational Physician and Other Health Personnel. Complementary health insurance is also offered for unionized employees.

- As a result of the problems identified by the Workplace Physicians during the Periodic Health Checks carried out in our workplace, employees are referred to hospitals for further examinations and treatments.

- Supplementary health insurance is provided for our unionized employees under the Collective Labor Agreement (TİS) by MESS and İÇDAŞ.



In 2022, just like in 2021, we did not have any occupational diseases as a result of our occupational safety measures and efforts such as the use of personal protective equipment. The lost day rate due to work accidents remained constant at 0.01. Following the Covid-19 pandemic, there is a decrease in disease-related absenteeism rates in 2022 compared to 2021. The absenteeism rate for women decreased from 4.46 to 4.39, while for men, it decreased from 3.10 to 2.53. The accident frequency rate in 2022 is 26.79%.

<b>Occupational disease rate (%)</b>	0
<b>Number of Fatal Accidents</b>	1
<b>Lost day rate due to work accidents (%)</b>	0.01
<b>Lost day rate due to diseases and other reasons (%)</b>	2.57
<b>Accident frequency rate (%)</b>	26.79

In 2022, among the high-rate injuries, the following types were identified: caught between two objects, excessive muscle strain, falling objects, personal falls (slips, trips), contact with excessive heat, splashes from slag, falling from heights, collision with moving objects, penetration or impalement by an object, striking or striking against a stationary object or person, and cutting by an object. Training programs for these types of injuries were repeated through the İÇDAŞ Academy application, and specific measures were increased based on a detailed examination by the relevant department for each type of accident and its location.

Our employees are regularly surveyed every year and asked to share their opinions on their workplaces and working environments. Apart from this survey, feedback is also received from employees within the scope of the ISO 45001 Occupational Health and Safety Quality Management System. Employees' union rights are secured, and union representatives and management are in direct contact, and employees' needs and problems are conveyed to İÇDAŞ management at regular meetings.

Within the scope of occupational health and safety, İÇDAŞ also places importance on disaster management. While the risk of fire in our facilities has been reduced through various preventive activities, the process of establishing a fire brigade team was initiated in 2020 to respond rapidly and with the correct techniques in the event of a fire. As of 2022, our fire brigade team consists of 21 experts and trained firefighters. In addition to these efforts, 69 new room fire detection systems were installed in 2022.

Maintenance of horizontal lifelines in our facilities is carried out regularly, and new horizontal lifelines are being created. In 2022, 3,971 meters of new lifelines were added, bringing the total length of lifelines on our roofs to 17,771 meters.

We are committed to using technology in every area in our facilities. In the field of occupational health and safety, we made a significant leap in 2022 by leveraging information technology. We installed the "**Artificial Intelligence-Based OHS Video Analysis Software Platform**" to continuously monitor our employees' compliance with occupational health and safety rules 24/7. The software maintains constant communication with the field through 20 cameras we installed, tracking our staff's adherence to defined occupational health and safety rules (such as personal protective equipment usage, speed control, restricted area violations, etc.) and reporting unsafe conditions and behaviors. It analyzes data obtained from the cameras in the field, providing information and recommendations to our OHS teams for taking strategic measures and creating safe working environments.





Management of industrial accidents is of great importance in industrial facilities. It is also known that major industrial accidents, especially in integrated facilities, can have a domino effect and damage other facilities and the ecosystem in the region. These accidents can be prevented through risk-based studies. As İÇDAŞ, we comply with and contribute to the studies and legislation carried out by the Ministry of Environment, Urbanization and Climate Change and the Ministry of Labor and Social Security in our country.

Within the scope of harmonization with the European Union, many projects have been carried out, regulations and guidelines have been prepared in the process of harmonization of SEVESO, the EU Directive on major industrial accidents. Our organization also participated in these activities carried out by the relevant public institutions and shared its views.

Within the scope of the Regulation on Prevention and Mitigation of Major Industrial Accidents (BEKRA), our facility has made the necessary arrangements, has become fully compliant with the regulation, and has been evaluated as a "lower level organization" by the system after the entries made to the system determined by the Ministry.

#### Within the scope of "Reducing the Risks of Major Industrial Accidents" (BEKRA), which is also stated in the Regulation,

- Alternatives to hazardous chemicals are being evaluated. As a result of the evaluations, Carbonhydrazide was started to be used instead of the hazardous Hydrazine chemical.
- In 2022, the final version of the Major Accident Prevention Policy Document-Safety Report (BKÖP) was completed, and the first revision was made by evaluating the experiences before the end of 2022.
- Process Safety Unit Team Members were appointed.
- The job descriptions of the relevant personnel in the organization within the scope of BEKRA were redefined and a process safety coordinator was appointed.
- Within the scope of the BKÖP scenario preparation, a field inspection was carried out with expert teams provided from outside the organization, and hazard identification and layers of protection analysis (LOPA) were carried out on hazardous equipment. As a result of these studies, the BKÖP scenario preparation was completed and recorded.
- Preparations were started in 2022 to include the Acid-phosphate plant in the scope of BEKRA.
- All activities carried out within the scope of BEKRA are recorded and regularly integrated into the QDMS program used for the management of our quality system.

## TRAINING

İÇDAŞ regards the training of personnel at all levels regarding occupational health and safety not merely as a legal requirement but as a result of a continuous improvement perspective. İÇDAŞ established the "İÇDAŞ Academy" platform, one of the most important steps in 2022, which provides remote training opportunities for employees. By using information technology in the best way, İÇDAŞ Academy provides personnel with a training platform that they can access electronically via computers and mobile devices. With this platform, as İÇDAŞ, we have not only met the training needs of all our personnel but also enabled them to follow current developments and İÇDAŞ's activities more effectively.



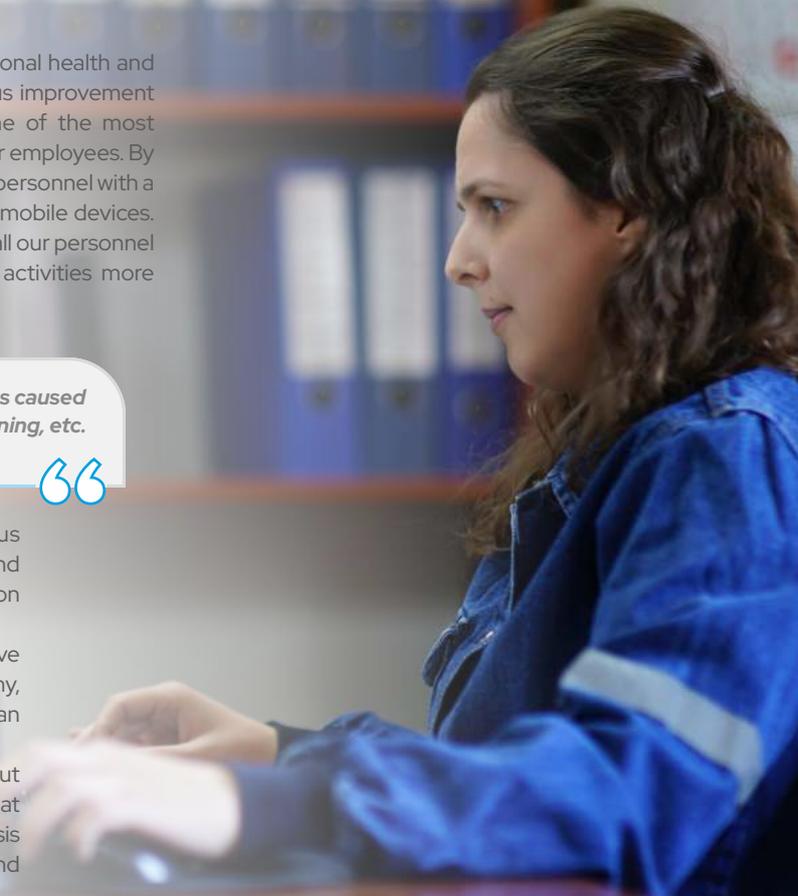
*In physical training sessions, we reduced our greenhouse gas emissions caused by many activities such as transportation, accommodation, indoor training, etc. through online training at İÇDAŞ Academy.*



Operating a systematic training process to ensure the continuous development of our personnel not only increases occupational health and safety but also increases professional skills and ensures our production efficiency.

In 2022, 158 thousand hours of training content was watched by 6,147 active users, and 108 thousand trainings were completed by İÇDAŞ Academy, which also makes significant contributions to the development of human resources within the organization.

The training content covered not only legislation and technical issues but also topics that will contribute to personal development. We ensured that our personnel received training on many different topics such as crisis management, leadership, living with earthquakes, thinking with data and effective decision-making, sustainability literacy, and cancer awareness.



We regularly provide training for our employees in the field they are assigned to. In 2022, we provided 20,000 hours of vocational training to develop professional competencies.

The qualifications that employees should have in the field of employment are tracked on an individual basis in the personnel file.

With İÇDAŞ Academy, we will update the training in 2023 and ensure that our personnel receive training in a way to convey new developments. In the next step, we will ensure that our suppliers, customers, and external stakeholders receive information and training on İÇDAŞ and our sustainability activities through this platform.

### Total Training Duration by Subject

Training Subject	2020	2021	2022
OHS Trainings	48,292	66,989	102,564
Orientation Trainings	11,488	21,864	12,920
Vocational Training	20,183	29,856	20,000
Single Point Training	6,312	8,022	10,191
Information Security Training	2,581	2,344	4,243
Quality Trainings	2,189	1,862	2,542
Personal Development Training	480	32	4,032
Environmental Training	2,133	5,592	8,334
Energy Management System Trainings	2,571	2,159	2,197
Environmental Control Lab, Training	-	-	1,188
<b>TOTAL</b>	<b>96,229</b>	<b>138,720</b>	<b>168,211</b>

Performance evaluation of personnel is carried out twice a year. The evaluation is based on the opinions of department managers. Therefore, during performance appraisals, a classification is made as the second-level managers of the team working directly under the department manager, such as assistant managers, supervisors, and others. In this binary classification, the department manager evaluates the subordinate managers directly reporting to him/her. The rate of regular personnel evaluated in this way is 98.88%.



## İÇDAŞ Suggestion System (İÇÖS)

The opinions and suggestions of our employees are very important for the efficiency of İÇDAŞ. In this context, we have created a platform where our employees can continuously give their opinions and suggestions in addition to the survey we organize annually. In 2008, we started to collect the opinions of our employees by sharing booklets explaining how the İÇDAŞ Suggestion System (İÇÖS) platform works. Suggestions are submitted to the İÇÖS Executive Board and evaluated by a committee of 20 people with the participation of the work unit.

From the first establishment of the platform until the end of 2022, a total of 855 suggestions were recorded and 313 suggestions were implemented to improve Occupational Health and Safety and increase working efficiency. In addition, savings were achieved by reducing costs in production processes.



## TOGETHER WITH THE SOCIETY...

### Agriculture and livestock

Supporting the agriculture and livestock sector, which is the main source of livelihood for local people in our region, is of great importance for a sustainable future.

Our Agriculture and Livestock Department meticulously carries out our activities such as fish farming, beekeeping, ovine breeding, and agricultural practices. In these processes, as İÇDAŞ, we involve experts such as specialized agricultural engineers, technicians, veterinarians, and beekeepers. We use more than 80% of our products in our facilities, thus ensuring quality control.

The positive economic, social, and environmental impact of our investments in the agriculture and livestock sector is significant.



	Livestock, Beekeeping and Small Ruminant Breeding	Agriculture Practices																																																																																																																																
Place of Implementation	Değirmencik - Bekirli villages/Biga District	Değirmencik- Biga																																																																																																																																
External stakeholders supporting the implementation or receiving support to benefit from national-level support and exchange technical information	<ul style="list-style-type: none"> <li>• Biga District Directorate of, Agriculture and Forestry,</li> <li>• Biga Red Meat Union,</li> <li>• Çanakkale Beekeepers Union</li> </ul>	<ul style="list-style-type: none"> <li>• Çanakkale Provincial and Biga District Directorate of Agriculture and Forestry,</li> <li>• Local and national fertilizer companies</li> </ul>																																																																																																																																
Products	<table border="1"> <thead> <tr> <th></th> <th>2020</th> <th>2021</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td><b>Animals</b></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fish</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Bee</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Calf</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Sheep</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Chicken</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Goose</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Turkey</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Duck</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td><b>Animal Products</b></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fish</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Honey</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Pollen</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Meat</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Egg</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Lamb</td> <td></td> <td></td> <td>✓</td> </tr> </tbody> </table>		2020	2021	2022	<b>Animals</b>				Fish	✓	✓	✓	Bee	✓	✓	✓	Calf	✓	✓	✓	Sheep	✓	✓	✓	Chicken	✓	✓	✓	Goose	✓	✓	✓	Turkey	✓	✓	✓	Duck	✓	✓	✓	<b>Animal Products</b>				Fish	✓	✓	✓	Honey	✓	✓	✓	Pollen	✓	✓	✓	Meat	✓	✓	✓	Egg	✓	✓	✓	Lamb			✓	<table border="1"> <thead> <tr> <th></th> <th>2020</th> <th>2021</th> <th>2022</th> </tr> </thead> <tbody> <tr> <td><b>Agricultural Products</b></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pepper</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Tomato</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Apple</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Melon</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Watermelon</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Cabbage</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Broccoli</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Eggplant</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Molasses</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Grape</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Jam</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Tomato paste</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Walnut</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </tbody> </table>		2020	2021	2022	<b>Agricultural Products</b>				Pepper	✓	✓		Tomato	✓	✓	✓	Apple	✓	✓		Melon	✓	✓		Watermelon	✓	✓		Cabbage				Broccoli				Eggplant				Molasses	✓	✓		Grape	✓	✓		Jam	✓	✓	✓	Tomato paste	✓	✓	✓	Walnut	✓	✓	✓
		2020	2021	2022																																																																																																																														
<b>Animals</b>																																																																																																																																		
Fish	✓	✓	✓																																																																																																																															
Bee	✓	✓	✓																																																																																																																															
Calf	✓	✓	✓																																																																																																																															
Sheep	✓	✓	✓																																																																																																																															
Chicken	✓	✓	✓																																																																																																																															
Goose	✓	✓	✓																																																																																																																															
Turkey	✓	✓	✓																																																																																																																															
Duck	✓	✓	✓																																																																																																																															
<b>Animal Products</b>																																																																																																																																		
Fish	✓	✓	✓																																																																																																																															
Honey	✓	✓	✓																																																																																																																															
Pollen	✓	✓	✓																																																																																																																															
Meat	✓	✓	✓																																																																																																																															
Egg	✓	✓	✓																																																																																																																															
Lamb			✓																																																																																																																															
	2020	2021	2022																																																																																																																															
<b>Agricultural Products</b>																																																																																																																																		
Pepper	✓	✓																																																																																																																																
Tomato	✓	✓	✓																																																																																																																															
Apple	✓	✓																																																																																																																																
Melon	✓	✓																																																																																																																																
Watermelon	✓	✓																																																																																																																																
Cabbage																																																																																																																																		
Broccoli																																																																																																																																		
Eggplant																																																																																																																																		
Molasses	✓	✓																																																																																																																																
Grape	✓	✓																																																																																																																																
Jam	✓	✓	✓																																																																																																																															
Tomato paste	✓	✓	✓																																																																																																																															
Walnut	✓	✓	✓																																																																																																																															

## Livestock and Agricultural Investments

	2020	2021	2022
<b>Livestock Practices Investments (1.000 TL)</b>			
<b>Cattle Breeding</b>	4,500	400	8,427.13
<b>Beekeeping</b>	350	110	380
<b>Ovine breeding</b>	1,000	400	964
<b>Agricultural Practices Investments (1.000 TL)</b>			
<b>Agriculture</b>	1,000	2,000	188



As İÇDAŞ, we continued to make investments in 2022 to increase the efficiency of agricultural production, strengthen sustainability, and improve our mechanical structures. In this context, soil working equipment, a seeder, and a fertilizer spreading bucket were purchased in 2022. In addition, unlike in other years, fodder peas and triticale cultivation were planted for fattening in 2022.

In the 2022 production season, different previous years, tomato manufacturing was carried out within the scope of the protocol signed with Sunar Gıda.

In 2022; seed material production areas were increased to 5000 acres. In 2022, the certified cereal seeds obtained from 2021 production was sold. To increase threshing and transportation efficiency for the seed production and storage process, emphasis was placed on mechanization, and conveyors and screw conveyors were purchased in this context. A grain license agreement was signed with the Southeastern Anatolia Project (GAP) Agricultural Research Institute. As a result of our cotton seed R&D work, commercial cotton seed sales were realized in 2022. In addition, with our zero-waste perspective and circular economy approach, we aim to bring all products from our facilities into the economy. In this context, we have initiated R&D studies to bring iron sulfate, a by-product of the steel industry, into agricultural production.



## İÇDAŞ Agricultural Enterprises, İÇDAŞ Private Agricultural Research Center

Always standing by Turkish agriculture and Turkish farmers with the mission of being a local company, İÇDAŞ Agricultural Enterprises creates added value to the region with both livestock breeding and agricultural production with the Fattening Enterprises established in 2007. In the light of years of experience, İÇDAŞ continues its activities in the light of technological and modern principles with İÇDAŞ Private Agricultural Research Center established in 2019.

Both production and sales of 11 varieties, including 4 varieties of barley, 3 varieties of wheat, 2 varieties of cotton, 1 variety of triticale, and 1 variety of oats, all rights of which have been transferred to İÇDAŞ. Seed production is carried out in large production areas in Marmara, Aegean, Central and Eastern Anatolia regions. In addition to these, the İÇDAŞ Private Agricultural Research Center, which is wholly owned by İÇDAŞ Agriculture, has developed and introduced to the market a special blend seed called İÇDAŞ MIX, which is cultivated for animal nutrition. It has received high praise from farmers not only in our region but also in other parts of the country.

İÇDAŞ Agriculture, the innovative locomotive of the country's agriculture, carries out plant and animal health studies in its three laboratories equipped with new-generation devices and also continues its work for new variety breeding in different product groups in plants. İÇDAŞ Agriculture, especially focusing on cotton and wheat breeding, closely monitors the needs of farmers and consumers. It works to meet the expectations in breeding programs prepared according to the expectations of farmers and consumers.

In order to introduce local and national varieties to Turkish agriculture, İÇDAŞ Agriculture conducts experiments at research and development stations located in different regions of the country. Each year, while creating suitable varieties in the hybridization garden, it also identifies hybrid varieties through selection. In the final stage, it aims to bring the variety to farmers by establishing regional yield trials and variety yield trials.

Committed to preserving tomorrow while producing today, İÇDAŞ Agriculture continues its work for the future generations, aiming to protect resources and advance one step ahead without compromising the share of future generations.



## Archaeology

At İÇDAŞ, we consider it our duty to support archaeological activities in our region, where there are rare examples of human and natural history. In this context, we provided approximately 2 million Turkish Lira in support to archaeological sites in the year 2022. Along with support exceeding 20 million Turkish Lira since 2014, the increase in the number of tourists in these areas has highlighted tourism in the local economic development dynamics.

The number of tourists visiting the sites we supported increased from 335 thousand to 685.470 in 2022.

Archaeological Site	District	Province	Cooperating Institution	Economic support in 2022 (TL)
Parion Excavation Site	Biga	Çanakkale	Ministry of Culture and Tourism	370,062.15
Assos Excavation Site	Ayvacı	Çanakkale	Ministry of Culture and Tourism	497,926.60
Troy Excavation Site	Çanakkale	Çanakkale	Ministry of Culture and Tourism	375,798.61
Apollon Excavation Site	Gürpınar	Çanakkale	Ministry of Culture and Tourism	209,506.38
Troyas Aleksandro	Çanakkale	Çanakkale	Ministry of Culture and Tourism	271,327.36
Maydos Excavation Site	Çanakkale	Çanakkale	Ministry of Culture and Tourism	248,861.51







The number of tourists  
visiting the sites we  
supported increased  
from **335 thousand to**  
**685,470** in 2022.



## Local investments

Support for local development and communication with all people and institutions in our region is essential to our sustainability approach. In this regard, in addition to supporting the infrastructure and the needs of public institutions in our region, we also contribute to social and cultural life.

In 2022, we provided approximately 14 million TL in support for social and environmental infrastructure, sports, education, and cultural activities. We increased the number of athletes from 407 to 535. In addition to the educational support, we provide to Çanakkale 18 Mart University, we also contribute to the needs of public institutions in our region. We supported the education and training of 137 students at vocational high school, university, and other education levels by providing scholarships.







**09**

**ENVIRONMENTAL  
SUSTAINABILITY**



## ENVIRONMENTAL SUSTAINABILITY



*“As İÇDAŞ Environment Unit, we embrace the sustainability perspective and carry out our activities with this perspective.”*



We aim to make sustainability a way of life for every employee in our organization. In this context, we take care to take measurable and concrete steps. As a team, while reducing İÇDAŞ's water footprint and carbon footprint, we take the opinions of the people living in our area of operation and contribute to their social and economic development.

We regularly collect and analyze the opinions of our employees and ensure their participation in our decision-making processes. The importance attached by İÇDAŞ Board of Directors to zero waste and innovation contributes greatly to our efforts in sustainability and environmental management.

**Arzu Ballı – Environmental Legal Permits Chief**



Our steel production facility, which was established to ensure that steel scrap does not harm the environment and natural resources are not consumed, receives steel scrap from all over the world and produces steel again. İÇDAŞ, whose main field of activity is waste recycling, continues to carry out its activities by considering the needs of future generations. In this scope, we reduce our greenhouse gas emissions through investments in energy efficiency and renewable energy, while improving our environmental performance by using new technologies and making investments.

• In order to reduce the environmental impact of our activities and preserve biodiversity, our operating expenses and investments increased from **\$46 million in 2021 to \$91 million in 2022.**

• With a zero-waste perspective, we recovered almost all of our hazardous waste and **60% of our total waste.**

• We regularly monitor and improve our performance by implementing quality management systems in our facilities. Systems that are directly linked to our environmental performance such as **ISO 50001 Energy Management System, ISO 14001 Environmental Management System, ISO 17025 Quality Management System for Laboratories, and ISO 45001 Occupational Health and Safety Quality Management System** are regularly implemented, recorded, audited, and certified in our facilities.

• While increasing our product quality, we also carry out activities that reduce our environmental impact. We have succeeded in reducing our water consumption per ton of steel produced from **0.85 m<sup>3</sup> to 0.80 m<sup>3</sup> with our new practices (reuse of treated water in ash moistening and vehicle washing)**, which we introduced in 2022 with our R&D studies and the reuse of the water used in our facilities.

• **With our energy efficiency practices, we reduced the energy we consume per ton of production by 3.51% compared to 2021.** With our zero-waste approach, we continued our R&D efforts in 2022 to use production waste in different areas, and we implemented efforts to use our process waste, ferrous sulfate, as iron-sulfate dehydrate fertilizer.

• We have continued to accelerate our efforts in renewable energy production and investments. **In 2022, we increased our solar energy installed capacity from 3.97 MW in 2021 to 5.3 MW. Our total renewable energy installed capacity now stands at 70.6 MW, with 60 MW in wind, 5.3 MW in hydroelectric, and 5.3 MW in solar.**



### Environmental Investment and Operating Costs (TL)



2020



2021



2022

Emissions and Climate Protection	210,706,760	362,801,872	1,388,958,825
Wastewater Management	16,209,743	27,474,752	84,142,988
Waste Management	4,268,278	7,968,932	14,157,935
Protection of Soil and Groundwater	2,206,419	1,712,684	8,221,371
Biodiversity Conservation	4,637,611	605,437	1,128,212
Clean Energy, Radiation Safety, Other	1,090,977	4,458,022	4,582,871
<b>Total</b>	<b>239,119,787</b>	<b>405,021,699</b>	<b>1,501,192,202</b>



## OUR ENVIRONMENTAL SUSTAINABILITY HISTORY

2004	Establishment of Environmental Unit
2005	ISO 14001 Environmental Management System Certificate Istanbul Chamber of Industry Sector Environment Award
2006	Kocaeli S.O. Şahabettin Bilgisu Environmental Incentive Award
2008	EU Turkey Program 1st Prize in the Management Category
2009	Akdeniz University Environmental Service Award Establishment of Air Quality Measurement Station (First in the Sector)
2010	Istanbul Chamber of Industry Sustainable Environment Award TÜBİTAK MAM Biga Peninsula Environmental Monitoring Project
2011	Ministry of Development Best Sustainable Practice Award Istanbul Chamber of Industry Environmental Management and Corporate Social Responsibility First Prize Energy Oscar Award (Coal Category)
2012	UN Rio+20 Conference on Sustainable Development, Best Practice Example First Environmental Permit and License in the Steel Industry Şahabettin Bilgisu Environment Award Realization of SAIS installations
2013	Çanakkale Winner of Türkiye's Cleanest Industrial Facility Turkey's Cleanest Industrial Facility Ranks First in Turkey Energy Oscar Award in the Coal Category Publication of İÇDAŞ First Sustainability Report LACP "World's 2nd Best Sustainability Report" (The first report to be ranked in Turkey)

2013	Large-scale organization environmentally friendly practice social responsibility jury special award (Biodiversity project) Artificial Reef and Biodiversity Support Project
2014	Energy Oscar Award (Coal Category) Şahabettin Bilgisu Environment Award
2016	TUBITAK MAM Biga Peninsula environmental monitoring project extension Project "Çanakkale Sea Lovers - Blue Step for Çanakkale" realized in cooperation with İÇDAŞ - Turmepa
2017	Low Carbon Heroes Awards
2018	Finalist of ISO 2018 Environment Awards Large Scale Enterprise Environment and Sustainability Management Category TÜBİTAK MAM Environmental Monitoring Project finalized
2021	We started to share all our biodiversity-related activities and living inventories in our region on İÇDAŞ website through an interactive platform. İÇDAŞ Biga SPP Project expanded with 1.5 million lira investment
2022	The number of our 10 Domestic Wastewater Treatment Plants has been reduced to 4 and energy and treatment efficiency has been increased. A total of 7 Wastewater Treatment Plants were converted to recycling. Bekirli Thermal Power Plant Boiler Combustion Optimization studies were initiated Two verification processes of İÇDAŞ Biga WPP project with an installed capacity of 60 MW, which is included in the Voluntary Carbon Markets, are ongoing. We have designed our water emissions to be zero in new investments.

## WATER MANAGEMENT AND RESOURCE PROTECTION

With the climate crisis, access to clean water is becoming much more difficult and costly for all living things. A serious water shortage is expected in the Mediterranean basin, including Türkiye<sup>9</sup>. In addition to water scarcity, the climate crisis also poses risks to access to healthy food. In the region where our operations are located, agriculture and animal husbandry activities, which need water the most, are an important source of income. As İÇDAŞ, in addition to supporting these activities economically, with the water management approach we implement, we not only make our production process sustainable and reduce the risks of climate crisis but also ensure that agriculture and livestock become sustainable in our region by reducing the pressure on agriculture and animal husbandry caused by the possible need for water.

Water is one of our most basic needs in our steel production processes and energy production through power plants and hydroelectric power plants installed in our discharge lines. As İÇDAŞ, we use water efficiently in all our production processes through innovative technologies and process improvements without depleting natural resources.

The 2022 World Water Day theme is "Groundwater: Making the Invisible Visible". The role and importance of groundwater in water and sanitation systems, agriculture, industry, ecosystems, and adaptation to climate change are discussed. As İÇDAŞ, in line with the theme of World Water Day 2022, we prefer seawater instead of using groundwater and surface water as domestic and process water in our steel production facilities and power plants to ensure that future generations live in a healthy environment and adapt to climate change more strongly. This is of great importance for the protection of groundwater and surface water resources.

We continue to develop the "Sustainable Water Management Project", which we started in 2007, every year with a holistic approach and continue to expand it by including the requirements of the legislation. Within the scope of the project, we aimed to completely end the use of groundwater, which is a depletable resource, to meet all the freshwater needs of the company from the sea, which is an unlimited resource, and to generate electrical energy from the cooling water discharged into the sea.



<sup>9</sup> IPCC, Climate Change 2022: Impacts, Adaptation and Vulnerability Report, 2022

### Sustainable Water Management Project



With our water management project, İÇDAŞ was selected as one of Türkiye's best practices in the field of sustainable development and green economy by the Ministry of Development, United Nations Development Program (UNDP) and Corporate Development and Sustainability Association in 2012 and proudly represented our country at the Rio+20 Summit in Brazil.

Sustainable Water Management Project consists of 2 phases.

#### 1. Fresh Water Obtaining Plant from the Sea

Just a few years after the establishment of our facility, we started to meet our water needs of 7,000 m<sup>3</sup>/day from the sea with an investment cost of 3 million 650 thousand dollars. Thus, we ended our use of groundwater with 32 wells. We continued to develop and improve this practice, which we observed to be successful and efficient, and by 2022, we launched facilities that provide clean water from seawater by reverse osmosis method with a capacity of 17,000 m<sup>3</sup>/day for our steel plants and 12,000 m<sup>3</sup>/day for our energy plants. Thanks to these measures, we ensured the protection of groundwater and reduced the risk of saltwater mixing with fresh water. At the same time, we created an environment for more efficient use of resources in agricultural areas.

#### 2. Electric Power Generation from Cooling Water Discharge

In addition to all these activities, we have realized the hydroelectric power plant project, which will use the energy of our cooling water as a renewable energy source by taking the energy of our cooling water before it reaches the sea, thereby reducing our energy costs as well as reducing our use of fossil fuels. With the investments we made in 2008 and 2011, we have installed 4 HEPPs in our cooling water discharge line.

We have made sea water suitable for our processes in our treatment facilities, and after using it in our steel production, we recycle the water and reuse it after treatment. We also recover the steam used for energy production in our power plants through condensation. This way, we conserve water and allow for the more efficient use of clean water resources in other development sectors in the region, such as agriculture and livestock, without depleting them.

According to a member survey published by the World Steel Association, for an integrated facility, the average water intake for every ton of steel produced was 28.6 m<sup>3</sup>, while the average water discharge was 25.3 m<sup>3</sup>. For the electric arc furnace method, the average intake was 28.1 m<sup>3</sup> per ton of steel, and the average water discharge was 26.5 m<sup>3</sup>. This indicates that the overall water consumption per ton of steel produced is low, ranging from 3.3 m<sup>3</sup> to 1.6 m<sup>3</sup>. The majority of water loss is due to evaporation.

	2021	2022
Amount of Water Consumed in Steel Production (m <sup>3</sup> /ton.steel)	0.85	0.80

With the water management projects we have implemented, our water consumption per ton of steel is much lower than the world average. In 2021, the amount of water consumed per ton of steel was 0.85 m<sup>3</sup>, while this amount decreased to 0.80 m<sup>3</sup> in 2022.

© World Steel Association (Worldsteel), Public Policy Document on Water Management in the Steel Industry, 2020



## Amount of Water withdrawn from the Sea and Recovered and Reused by Year

Year	Flow rate of water withdrawn from the sea to obtain freshwater (m <sup>3</sup> /year)	Amount of water recovered and reused (m <sup>3</sup> /year)
2020	2,580	322,511
2021	2,223	384,887
2022	4,807	337,613

*- Steel Plants, Power Plant - Değirmencik, Shipyard and Auxiliary Facilities and Power Plant - Bekirli are included in the calculations.*

**In 2022, by making sea water suitable for our processes, using it, and then recycling and treating it for reuse, we prevented the consumption and pollution of a total of 342,420,328 m<sup>3</sup> of fresh water (surface and groundwater). This prevented the consumption of clean water equivalent to the annual water consumption of approximately 4.5 million people.**

We are also taking effective steps in wastewater management. We are continuously making improvements for the effective treatment of wastewater at our facilities. We work meticulously to protect water quality and minimize environmental impacts.

To increase energy and treatment efficiency in our Değirmencik Integrated Facility, our 6 domestic treatment plants have been combined and we have 4 domestic and 1 vehicle washing wastewater treatment plants. Our treatment plant in the car wash area was converted to recycling in 2022. The treated water is used again in vehicle washing processes.

At Bekirli power plant, we have 2 domestic wastewater with 4 physical treatment plants, and 1 chemical treatment plant. With the new application we made at Bekirli power plant in 2022, treated water is recycled and used for ash humidification.

At İÇDAŞ, we continuously monitor and report our water management performance. This allows us to evaluate the effectiveness of our water efficiency projects and make continuous improvements.

We treat and discharge wastewater from our processes and employees with appropriate treatment technologies. We instantly monitor the treated water we discharge 24/7 and share the data with the Ministry. We measure flow, temperature, conductivity, dissolved oxygen, and pH values within the scope of our Continuous Wastewater Monitoring System (SAİS). Our SAİS system is installed at one discharge point at Bekirli power plant and two discharge points at Değirmencik Integrated Plant, for a total of 3 systems.

In addition to instantaneous monitoring, İÇDAŞ Environmental Control Laboratory, accredited by the Turkish Accreditation Agency within the scope of ISO 17025 Laboratory Quality Management System, conducts routine analyses within the scope of international standards and carries out the internal control process. Our wastewater laboratory has first-class technical equipment capable of analyzing all analytical parameters within the scope of its accreditation.

As a company, we aim to continuously improve in the field of water management. We will continue to invest in technological innovations and follow the best practices in the industry to protect water resources, increase water efficiency, and reduce environmental impact. In this way, we aim to provide both environmental and social benefits by making our iron and steel production more sustainable.





**We instantly monitor  
our treatment plants  
equipped with new technology.**

## ENERGY TRANSITION AND CARBON NEUTRALITY

Energy needs in the world's iron and steel industry are largely met by coal, natural gas, and electricity. According to International Energy Agency data, in 2019, 627 mtoe (million tons of oil equivalent) of energy was met from coal, 81 mtoe from natural gas, and 106 mtoe from electricity. If the world's iron and steel industry acts by the principles of sustainable development and makes its investments according to these principles, the energy obtained from coal will decrease to 547 mtoe, from natural gas to 96 mtoe, and from electricity to 115 mtoe in 2030. New technologies and energy efficiency practices in iron and steel production have also shown that energy consumption has decreased by 60% from the 1960s to 2019. As İÇDAŞ, we care about reducing the use of fossil fuels in line with the principles of sustainable development and we are taking steps to support the path recommended by the International Energy Agency for 2030 by increasing the amount of electricity we generate from renewable energy in our iron and steel production every year.

We reduce our use of fossil fuels by investing in renewable energy in our iron and steel production process. In addition, we ensure our energy efficiency and try to reduce our consumption by systematizing our maintenance and repair activities and implementing new technologies and new investments.

We operate by international standards on energy management and energy efficiency. In this regard, we have established our ISO 50001 Energy Management System, which is regularly audited and certified by a third-party audit team every year.

We are reducing our energy intensity in the pure steel we produce with our investments. In the World Steel Association's sustainability

indicators for 2022, 10.04 GJ/ton of crude steel is set for electric arc furnace plants using scrap steel. This ratio is 3.38 GJ/ton in our production.

### Energy Intensity

Year	Energy Intensity (GJ/ tons of pure steel produced)
2020	3.61
2021	3.50
2022	3.38

Within the scope of our energy improvement efforts, 19.8 million kWh consumption was prevented in 2022.

In 2008, in the final phase of our "Sustainable Water Management" project, we aimed to use the potential energy of water in our facilities while discharging the cooling water of our facilities. We realized our goal in a short time and installed four hydroelectric power plants with an installed capacity of approximately 6000 kW in our cooling water discharge lines with an investment of 15 million dollars. With this investment, we can meet 25% of the energy consumed due to the water we use in our steel mill and power plants by taking the water from the sea through pumps. In 2022, the economic value of the energy produced from renewable energy and consumed within the facility was calculated to be approximately 6 million 256 thousand dollars. 60 MW of electricity generated from our wind power plants is not used in the facilities and is supplied directly to the grid.

### Economic Value of Energy Produced from Renewable Energy Sources and Consumed in the Plant

Plant Name	Unit	2020	2021	2022
Steel Plants (HPP4)	TL	3,876,206.28	3,503.362.80	23,311,335.60
Steel Plants (SPP)	TL	1,526,588.66	1,799,583.46	15,337,404.64
Power Plant (HPP1-2-3)	TL	9,284,472.80	9,688,321.38	65,015,792.32
<b>Total</b>	<b>TL</b>	<b>14,687,267.74</b>	<b>14,991,267.63</b>	<b>103,664,532.56</b>

Our operating and investment activities for emissions and climate change continued in 2022. Our operating and investment costs increased in 2022 due to the accurate determination of emission data and efforts to reduce emissions and greenhouse gases. 92.5% of our environmental investments and operating costs were spent on emission and climate change activities.

**Our installed solar power plant capacity increased from 3.97 MW in 2021 to 5.3 MW in 2022. Our total renewable energy installed capacity is 70.6 MW with 60 MW in wind, 5.3 MW in hydroelectricity and 5.3 MW in solar. We aim to double our renewable energy power in a short time with solar power plants.**



Installed Capacity (MW)	2020	2021	2022
Bekirli Power Plant	1,236.00	1,236.00	1,236.00
Değirmencik Power Plant	405.00	405.00	405.00
HPP1-2-3-4	5.30	5.30	5.30
WPP	60.00	60.00	60.00
SPP	0.55	3.97	5.30
<b>Total Installed Capacity</b>	<b>1,706.85</b>	<b>1,710.27</b>	<b>1,711.60</b>
<b>Total Installed Capacity / Türkiye's Installed Capacity(%)</b>	<b>1.78</b>	<b>1.71</b>	<b>1.65</b>

Our electricity generation facilities met 3.5% of our country's electricity demand in 2022. In 2022, İÇDAŞ generated 1.8% of its electricity from renewable energy sources. While the ratio of renewable energy installed capacity within the installed capacity of our energy facilities was 4.06% in 2021, this ratio was increased to 4.14% in 2022.

Elektricity Generation (MWh)	2020	2021	2022
Bekirli Power Plant	8,547,430.71	7,212,420.06	7,857,976.11
Değirmencik Power Plant	2,800,597.66	2,943,813.35	2,657,835.50
HPP1-2-3-4	25,443.48	22,845.00	23,870.83
WPP	171,032.30	155,798.86	157,671.84
SPP	2,950.00	3,478.00	4,145.01
<b>Total Electric Generation</b>	<b>11,547,454</b>	<b>10,338,55</b>	<b>10,701,499</b>
<b>Total electricity generated/ Türkiye's total electricity generated (%)</b>	<b>3.78</b>	<b>3.38</b>	<b>3.50</b>

## REDUCING OUR EMISSIONS IN LINE WITH CARBON NEUTRALITY TARGET

Within the scope of the Paris Climate Agreement, we support the goal of limiting the world average temperature increase to 1.5 0C compared to the industrial revolution. In accordance with this goal, as İÇDAŞ, we are taking steps to reduce our greenhouse gas emissions toward the creation of a carbon-neutral economy.

As the first steel producer in Türkiye to calculate its carbon footprint and to receive the "Sustainable Steel Certificate" from the British organization "CARES", we, as İÇDAŞ, continue to calculate our greenhouse gas emissions regularly every year and have our calculations verified by a third-party accredited organization and submit them to the Ministry of Environment, Urbanization, and Climate Change. As can be seen in our greenhouse gas emission table prepared from the data we submitted to the Ministry, our total greenhouse gas emission amount decreased by 5% compared to last year with our renewable energy investments and energy efficiency efforts. In addition, investing in renewable energy production has prevented the emission of 89,873 tons of greenhouse gases in 2022.

By increasing our renewable energy investments, we reduce our dependence on electricity generated from power plants and reduce the emission generation in our production. In the meantime, we operate our business following national and international standards and conditions and manage our flue gas according to these standards.

In this context, we regularly measure the emissions in our chimneys by accredited laboratories and are audited by the Ministry of Environment, Urbanization, and Climate Change, while we also monitor our monitoring within the facility through monthly measurements. We measure settled dust at eight different points in our facility and monitor our air quality for our employees as well. Furthermore, with our traceability and transparency approach, we share the emission values from our chimneys with the Ministry of Environment, Urbanization, and Climate Change "instantly" and "online". We installed this system, called the Continuous Emission Measurement System, at our Bekirli and Değirmencik plants in 2014.



## ZERO WASTE

Our facility produces steel from scrap steel to protect natural resources. Our Değirmencik Integrated Plant recycles more than 15 thousand tons of steel scrap per day during production and is one of the largest recycling facilities in our country. Our basic policy in our production process is to reduce the generation of waste from production, to ensure that all wastes are reused, and to carry out recycling and recovery processes when this is not possible. Apart from the waste legislation of our country, our organization sensitively follows the best available techniques in the world and the Best Available Techniques (BAT) documents published in the European Union for integrated pollution prevention studies.

On the other hand, with the awareness that every waste will be the raw material for another production or industry, the wastes that we cannot reuse are brought into industry and production. With an "industrial symbiosis" perspective, we obtained a by-product certificate for the fly coal ash generated from our production and started to meet the raw material needs of cement factories and concrete production facilities.

Moreover, with the R&D study we developed in 2022, we started working to bring iron sulfate, a by-product of the steel industry, into agricultural production.

We ensure that our process wastes such as slag, oxide layer, and flue dust are utilized in other sectors. In 2022, **60% of the total waste generated was recovered**. Almost all hazardous waste was recovered. The remaining 40% was disposed of in a manner that would not harm the environment under the conditions specified by environmental legislation. Almost all of the disposed waste is non-hazardous waste. Waste management incurred an operating cost of 4 million TL in 2022. We continue to transparently submit our waste declaration forms to the Ministry of Environment, Urbanization, and Climate Change regularly every year.



### Total Amount of Waste from Facilities and Management

	Recovered	Disposed	TOTAL
<b>Hazardous Waste (tons)</b>	62,755.3	3.2	62,758.6
<b>Non-hazardous Waste (tons)</b>	654,663.5	490,180.4	1,144,843.9
<b>Total Waste (tons)</b>	717,418.9	490,183.6	1,207,602.5

### Amount and Management of Ship Waste Accepted to Facilities

	Recovered	Disposed	TOTAL
<b>Hazardous Waste (Bilge Water, Sludge, Waste Oil) (m<sup>3</sup>)</b>	887.5	0	887.5
<b>Non-Hazardous Waste (Domestic Solid and Liquid Waste) (m<sup>3</sup>)</b>	0	3,004	3,004



In 2023, the United Nations declared March 30 as World Zero Waste Day. As İÇDAŞ, in line with the zero-waste approach pioneered by our country, we continue our efforts to reduce the waste arising from the activities of our employees and to contribute to the economy. In this context, we started to develop and implement the “We Are Here for Zero Waste” project. In 2020, we received our Zero Waste Certificate from the Provincial Directorate of Environment, Urbanization, and Climate Change for the Değirmencik Facility and Bekirli Facility.

We regularly monitor and maintain the 325 waste containers we have placed at various points in our facilities. To ensure that packaging waste is healthily brought into the economy, we regularly collect the waste in recyclable waste bins and ensure that it is brought into the economy.

With our holistic perspective, we have completed the training of our personnel on zero waste and regularly raise awareness on zero waste management with the help of screens in public areas such as cafeterias. We also provide our personnel with training on waste management on the online İÇDAŞ Academy training platform. We provide orientation training on zero waste management to our suppliers or those who will work in our facility as part of our occupational health and safety training, and we share the locations of our bins and our sensitivity.



In 2022, we recycled **61%** of the waste generated from Bekirli power plant and **55%** of the waste generated from Değirmencik Integrated Facility



## NATURE PROTECTION AND BIODIVERSITY

The 15th Conference of the Parties (COP15) of the UN Convention on Biological Diversity (UNCBD), which Türkiye ratified in 1996, set the goal of protecting biodiversity and stopping extinction by 2030.

The International Day for Biological Diversity on May 22nd, adopted by the United Nations, was celebrated in 2022 with the theme "Building a shared future for all life". The theme determined by the United Nations for 2022 refers to İÇDAŞ's production cycle. As İÇDAŞ, we ensure the survival of all living creatures on land and in the sea and the protection of species with great sensitivity in the works mentioned in this section.

Maintaining biodiversity, protecting endemic species, and preventing species loss are among our responsibilities as İÇDAŞ, just like any other organization. We continue our work in line with the targets set by both the United Nations and our country.

The water cycle is the most important source of life and therefore biodiversity. With this awareness, as İÇDAŞ, we have structured our water management with high technology to sustain the diversity of species in our region. We have planned and implemented our water management as not using groundwater and surface water and treating and reusing the water we use. In this way, we ensure the sustainability of the water needs of terrestrial biodiversity in our region.

The region where our field of activity is located is a region where the coastal, marine, and terrestrial ecosystems are as a whole, forested areas, and rural life is sustained by agriculture and animal husbandry. No endemic species have been found in our region either in the research conducted by public institutions or in the research conducted by İÇDAŞ with the expert team formed by our personnel with researcher status. Established in 2013, our research team regularly examines and records the ecosystem and biodiversity in our region in four seasons, considering the cyclical life of nature. In 2022, birdwatching, sea, coastal, forest, and wildlife monitoring studies on biodiversity continued. We aim to continue these monitoring activities as long as İÇDAŞ's presence in the region continues.



It was observed that most of the area where our facility is located is dominated by scrub vegetation, with forest vegetation including oak and red pine trees. In areas where scrub communities have been destroyed, a garigue (phrygana) formation consisting of very short thorny bushes has also been observed. This vegetation type is abundant in the vicinity of the facility and is also quite common in the Mediterranean coasts of our country and is not under protection.

In 2021, after the mucilage formation observed in the Marmara Sea, as İÇDAŞ, we increased our observations and investigations in our region. The mucilage problem triggered by climate change was not observed in our region in 2022.

We build collaborations and partnerships to support biodiversity conservation. We collaborate with local communities, non-governmental organizations, and scientific institutions to contribute to biodiversity projects. Through these projects, we work to restore natural areas, improve habitats and protect endangered species.



*İÇDAŞ publishes the species it identifies as part of the biodiversity studies carried out in its region on its website.*

[https://www.icdas.com.tr/pages/8925/2716/f/tr-TR/Biyocesitlilik\\_Calismalari.aspx](https://www.icdas.com.tr/pages/8925/2716/f/tr-TR/Biyocesitlilik_Calismalari.aspx)



## Projects

### Artificial Reef and Biodiversity Support Project

In cooperation with Çanakkale Onsekiz Mart University, we launched the Artificial Reef and Biodiversity Support Project. This project aims to support both professional and amateur fishermen through artificial reefs to be created in the regions. In this direction, it is aimed to encourage fishing, prevent illegal fishing, and protect marine biodiversity.

Within the scope of the project, dives were carried out by the Faculty of Marine Sciences and Technologies in and around our port and the existing biodiversity in the underwater environment was determined.

We have allocated a budget of approximately 750 thousand TL for the activation of 2 thousand reefs planned for the implementation of the project. The artificial reef areas recorded during the dives have shown that our project is progressing positively. In addition, as another result of the project, fish and other sea creatures are moving towards the reefs and the number of individual species is increasing.

As İÇDAŞ, we are actively following the results of the project and continuing research in 2022.

### İÇDAŞ Biga WPP Ornithological and Wildlife Monitoring Project

Wind turbines also harm migratory birds. In this context, the Ministry of Forestry and Water Affairs decided to carry out ornithological and wildlife monitoring studies for two years since İÇDAŞ Biga WPP (Wind Power Plant) site is located on the migration route of birds. Within the scope of the project, which was carried out with a budget of 262 thousand TL between 2015-2017, the impact of the power plant on bird migration would be monitored and, if deemed necessary, turbines that could pose a threat during bird migration would be shut down.

Bat species, populations, breeding habitat, and migration areas are monitored in İÇDAŞ Biga WPP and its surroundings. A scientific report has been prepared on the impact of the project on bat species and measures to be taken, if any. In this fauna monitoring and bat impact assessment study, 9 new bat species were added to our list. The otter photographed by SAD-AFAG is another new mammal species on our list.

As a result of the research we conducted, a total of 10 new mammal species were added to our list. We included these species in our biodiversity report prepared by IUCN (International Union for Conservation of Wildlife and Natural Resources), which is based on the European Red List criteria.

In 2022, our biologist photographed migratory movements in the field and scanned carcasses. These surveys were recorded on daily observation forms.

### Ferrous Sulphate Fertilizer Project

Iron Sulphate fertilizer (iron sulphate heptahydrate) is generated as waste from the pre-stressed concrete bundle and wire plant, which was started to be installed in 2022 and commissioned in 2023. R&D work has been started for the use of this waste in agricultural activities and a by-product application has been made to the Ministry of Environment, Urbanization and Climate Change. It is expected that 3,364 tons of iron sulphate fertilizer will be produced annually. Iron Sulphate is a fertilizer that can be used in soil enrichment studies in agriculture and is used to meet the iron needs of plants. According to the results of the analysis, the iron content is suitable for use in agriculture. Ferrous Sulphate Heptahydrate is widely used in the agricultural sector to increase the iron element naturally found in the soil. Ferrous sulfate heptahydrate formed in our facilities will be used in agricultural areas for this purpose. While increasing the retention rates of fruits and vegetables, the colors of the products will be more pronounced.



**"We are working to restore natural areas, improve habitats, and protect endangered species."**



## FIRM STEPS TO THE FUTURE: TÜRKİYE'S 3<sup>RD</sup> LARGEST GENE BANK

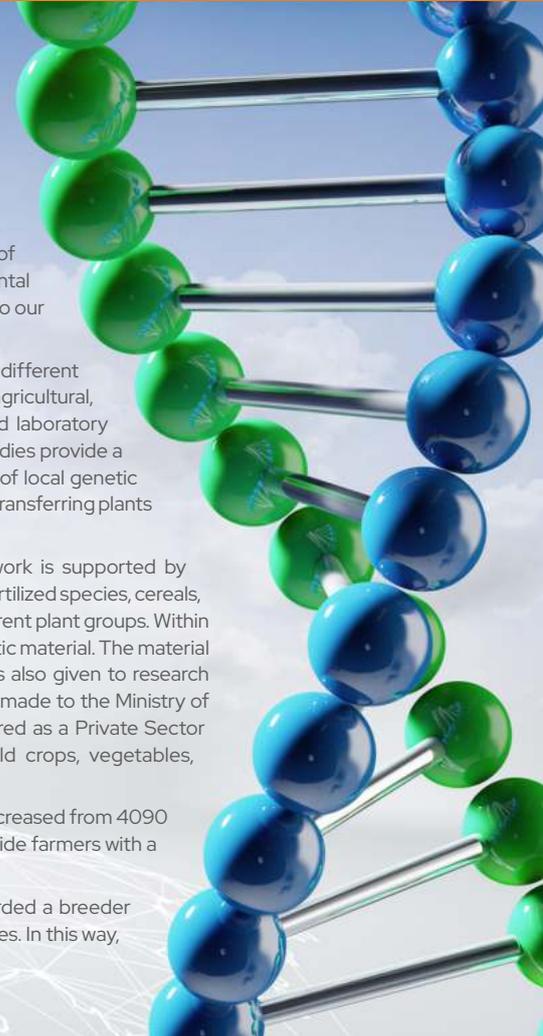
With our production policy that considers the needs of future generations, protecting the biodiversity and therefore the ecosystem of the regions where we are located is among our priorities. For future generations to live humanely and in harmony with nature, we not only reduce our environmental impact but also aim to transfer the existing biodiversity to the future. In this context, we established Türkiye's third-largest gene bank in 2019 and continue to develop it every day. We are happy to create our gene bank in line with the principles of sustainable development to protect genes that are at risk of extinction due to climate change, environmental pollution, and habitat destruction, as well as to protect us from foods with artificial genes that are introduced into our lives by losing their naturalness and genetically modified.

With our project, which ensures the protection of heirlooms suitable for our country's conditions and ecosystem, different plant species from Anatolian geography were renewed at regular intervals and subjected to botanical, genetic, agricultural, and technological analyses to determine local genotypes. These analyses were carried out under field and laboratory conditions so that the characteristics and adaptation abilities of the plants were better understood. These studies provide a better understanding of plant characteristics and adaptation capabilities and contribute to the conservation of local genetic resources. The conservation process we carry out in our cold storage facilities is of great importance in terms of transferring plants to future generations and reducing the risk of species extinction.

The project aims to collect and long-term preserve 40,000 different plant genotypes. This important work is supported by universities and research institutes. The studies will be conducted separately for self-fertilized species, cross-fertilized species, cereals, industrial crops, legumes, and vegetables. In this way, we aim to conserve genetic diversity by focusing on different plant groups. Within the project, a specially designed 2000 m2 warehouse has been built for proper and long-term storage of genetic material. The material used for the studies is purchased directly from breeders and support is provided to local farmers. Priority is also given to research institutes and universities to support these organizations. Within the scope of this project, an application was made to the Ministry of Agriculture for a Special Agricultural Research Authorization Certificate. On 04.02.2022, İÇDAŞ was registered as a Private Sector Agricultural Research Organization with registration number 2022/349 in 3 different plant groups (field crops, vegetables, fruits/grapes). Also, a Seed Producer Certificate was obtained in 2021.

Within the scope of the project, the amount of land for seed production and sale to farmers in the region was increased from 4090 acres to 5000 acres in 2022. Barley, wheat, triticale, and oat seeds were planted in these areas. We aim to provide farmers with a healthy and efficient planting option with quality seed production.

Three engineers working in our company successfully completed the Plant Breeding Course and were awarded a breeder certificate. This certificate shows that our engineers are specialized in seed production and agricultural activities. In this way, we are better able to support farmers by providing them with consultancy services.





**Türkiye's**  
**3<sup>RD</sup> LARGEST GENE BANK**

## Environmental Performance Indicators

Environmental Investments	2020		2021		2022	
Environmental Investment and Operational Costs	Cost (TL)	Percentage within the total cost (%)	Cost (TL)	Percentage within the total cost (%)	Cost (TL)	Percentage within the total cost (%)
Emissions and Climate	210,706,760	%88.1	362,801,872	%89.6	1,388,958,825	%92.5
Wastewater Management	16,209,743	%6.8	27,474,752	%6.8	84,142,988	%5.6
Waste Management	4,268,278	%1.8	7,968,932	%2.0	14,157,935	%0.9
Preservation of Soil and Groundwater	2,206,419	%0.9	1,712,684	%0.4	8,221,371	%0.5
Biodiversity Conservation	4,637,611	%1.9	605,437	%0.1	1,128,212	%0.1
Clean Energy, Radiation Safety, Other	1,090,977	%0.5	4,458,022	%1.1	4,582,871	%0.3
<b>Total Environmental Investment and Operational Costs</b>	<b>239,119,787</b>	<b>%100.0</b>	<b>405,021,699</b>	<b>%100.0</b>	<b>1,501,192,202</b>	<b>%100.0</b>

Energy Consumption	2020		2021		2022	
Energy Produced from Renewable Energy Sources and Consumed within the Facility	Quantity (kWh)	Total Economic Value (TL)	Quantity (kWh)	Total Economic Value (TL)	Quantity (kWh)	Total Economic Value (TL)
Steel facilities (HPP 4)	7,491,600	3,876,206.28	6,771,000	3,503,362.80	6,300,000	23,311,335.60
Steel facilities (SPP)	17,944,235	1,526,588.66	18,724,759	1,799,583.46	17,570,829	15,337,404.64
Power plant (HPP 1-2-3)	2,950,460	9,284,472.80	3,748,081	9,688,321.38	4,145,007	65,015,792.32
<b>Total</b>	<b>28,386,295</b>	<b>14,687,267.74</b>	<b>28,973,840</b>	<b>14,991,267.63</b>	<b>28,015,836</b>	<b>103,664,532.56</b>

## Environmental Performance Indicators

Secondary Energy Purchased from Non-Renewable Energy Sources and Consumed	Quantity (kWh)	Quantity (kWh)	Quantity (kWh)
Steel facilities	1,954,170,155.15	2,110,600,276.22	1,855,054,698.73
Değirmencik power plant	300,017,126.00	317,057,747.00	297,400,516.00
Shipyard	1,978,989.03	3,045,460.01	4,755,354.11
Değirmencik Auxiliary Facilities (Facilities other than Steel, Energy and Shipyard)	198,516,464.68	193,218,033.80	220,513,028.16
Bekirli power plant	426,465,203.00	383,900,056.00	415,581,676.00
<b>Total</b>	<b>2,881,147,937.86</b>	<b>3,007,821,573.03</b>	<b>2,793,305,273.00</b>
Natural Gas Consumption (GJ)	3,888,339	4,372,014.9	3,936,989.2
Energy Intensity (GJ/ton of raw steel produced)	3.61	3.50	3.38

Energy Generation	2020		2021		2022	
Installed Capacity	Installed Capacity (MW)	Installed Capacity Ratio (%)	Installed Capacity (MW)	Installed Capacity Ratio (%)	Installed Capacity (MW)	Installed Capacity Ratio (%)
Bekirli Power Plant	1,236.00	72.41	1,236.00	72.27	1,236.00	72.21
Değirmencik Power Plant	405.00	23.73	405.00	23.68	405.00	23.66
HPP 1--2-3-4	5.30	0.31	5.30	0.31	5.30	0.31
WPP	60.00	3.52	60.00	3.51	60.00	3.51
SPP	0.55	0.03	3.97	0.23	5.30	0.31
<b>Total Installed Capacity</b>	<b>1,706.85</b>	<b>100.00</b>	<b>1,710.27</b>	<b>100.00</b>	<b>1,711.60</b>	<b>100.00</b>
<b>Total Installed Capacity / Total Installed Capacity in Türkiye (%)</b>	1.78		1.71		1.65	
<b>(Total Installed Capacity in Türkiye (MW))</b>	(95,890.60 MW)		(99,819.60 MW)		(103,809.30 MW)	

## Environmental Performance Indicators

Electricity Generation	Electricity Generation (MWh)	Electricity Generation Ratio (%)	Electricity Generation (MWh)	Electricity Generation Ratio (%)	Electricity Generation (MWh)	Electricity Generation Ratio (%)
Bekirli Power Plant	8,547,430.71	68.2	7,212,420.06	69.8	7,857,976.11	73.4
Değirmencik Power Plant	2,800,597.66	22.3	2,943,813.35	28.5	2,657,835.50	24.8
HPP 1--2-3-4	25,443.48	0.2	22,845.00	0.2	23,870.83	0.2
WPP	171,032.30	1.4	155,798.86	1.5	157,671.84	1.5
SPP	2,950.00	0.0	3,478.00	0.0	4,145.01	0.0
<b>Total Electricity Generation</b>	11,547,454.15	100.0	10,338,355.27	100.0	10,701,499.29	100.0
<b>Total Electricity Generation/ Total Electricity Generation in Türkiye (%) (Total Electricity Generation in Türkiye (MWh))</b>		3.78 (305,431,386 MWh)		3.38 (305,431,387 MWh)		3.50 (305,431,388 MWh)

Water Consumption	2020	2021	2022
Freshwater resource usage (m <sup>3</sup> ) (Groundwater + Surface water)	0	0	0
Amount of seawater drawn for freshwater production (*1000 m <sup>3</sup> )	2,580	2,223	4,807
Recycled/Reused water amount (*1000 m <sup>3</sup> )	322,511	384,887	337,613

## Environmental Performance Indicators

Waste	2020			2021			2022		
	Recycle	Dispose	Total	Recycle	Dispose	Total	Recycle	Dispose	Total
<b>Waste generated from facilities</b>									
Hazardous waste amount (ton)	64,032.81	0.22	64,033.04	99,883.29	7,409.11	107,292.39	62,755.3	3.2	62,758.6
Non-hazardous waste amount (ton)	711,952.30	431,629.25	1,143,581.54	164,126,523.50	85,303,180.33	249,429,703.83	654,663.5	490,180.4	1,144,843.9
<b>Total (ton)</b>	<b>775,985.11</b>	<b>431,629.47</b>	<b>1,207,614.58</b>	<b>164,226,406.78</b>	<b>85,310,589.44</b>	<b>249,536,996.22</b>	<b>717,418.9</b>	<b>490,183.6</b>	<b>1,207,602.5</b>
<b>Ship waste accepted at facilities</b>									
Hazardous waste (Bilge water, sludge, waste oil) (m <sup>3</sup> )	985.7	0	985.7	982.6	0	982.6	887.5	0	887.5
Non-hazardous waste (Domestic Solid and Liquid Waste) (m <sup>3</sup> )	0	1,674.9	1,674.9	0	1,792.7	1,792.6	0	3,004.0	3,004.0
<b>Total (ton)</b>	<b>985.7</b>	<b>1,674.9</b>	<b>2,660.6</b>	<b>982.6</b>	<b>1,792.7</b>	<b>2,775.2</b>	<b>887.5</b>	<b>3,004.0</b>	<b>3,891.5</b>

Emission	2020		2021		2022	
<b>Greenhouse Gas Emissions</b>						
Değirmencik Facility (*1000 tonCO <sub>2</sub> e)		3,850		4,178		3,473
Bekirli Facility (*1000 tonCO <sub>2</sub> e)		7,775		6,085		6,247
<b>Total (*1000 tonCO<sub>2</sub>e)</b>		<b>11,625</b>		<b>10,263</b>		<b>9,720</b>



## Social Performance Indicators

Number of Employees		2020	2021	2022
<b>By Gender</b>				
Female	Person	150	154	162
	Percentage	%2.71	%2.54	%2.62
Male	Person	5,393	5,901	6,012
	Percentage	%97.29	%97.46	%97.38
<b>By Employment Type</b>				
Number of White- Collar Employees	Female	106	105	109
	Male	549	596	610
Number of Blue- Collar Employees	Female	44	49	53
	Male	4,844	5,305	5,402
<b>By Contract Type</b>				
Number of Full-Time Employees	Female	150	154	162
	Male	5,393	5,901	6,012
Number of Part-Time Employees	Female	0	0	0
	Male	0	0	0
<b>Total Employees</b>	<b>Person</b>	<b>5,543</b>	<b>6,055</b>	<b>6,174</b>



### Social Performance Indicators

#### Number of New Hires

**2020****2021****2022**

#### By Gender

Female

9

13

12

Male

563

928

567

#### By Age

30 years and younger

332

594

289

Between 30 and 50 years old

201

293

197

50 years and older

39

54

93

**Total Number of New Hires****572****941****579**

#### Number of Employees Departed

**2020****2021****2022**

#### By Gender

Female

6

9

8

Male

324

417

453

#### By Age

30 years and younger

102

139

154

Between 30 and 50 years old

158

215

198

50 years and older

70

72

109

**Total Number of Employees Departed****330****426****461**

## Social Performance Indicators

### Employee Health and Safety Data

Accident Frequency Rate (%)	23.58	26.08	26.79
Occupational Disease Rate (%)	0	0	0
Number of Fatal Accidents	2	1	1
Lost Day Rate Due to Work Accidents (%)	0.40	0.01	0.01
Lost Day Rate Due to Illness and Other Reasons (%)	2.81	3.14	2.57
Employee Turnover Rate (%)	3.26	4.77	5.28
Percentage of Employees Covered by Collective Bargaining Agreements (%)	51.78	53.79	54.41
Total Number of Students Granted Scholarships	156	150	137

### Training

	2020	2021	2022
Training Provided to Employees (person-hours)			
Occupational Health and Safety (OHS) Training	48,292	66,989	102,564
Orientation Training	11,488	21,864	12,920
Vocational Training	20,183	29,856	20,000
Point-Specific Training	6,312	8,022	10,191
Information Security Training	2,581	2,344	4,243
Quality Training	2,189	1,862	2,542
Personal Development Training	480	32	4,032
Environmental Training	2,133	5,592	8,334
Energy Management System Training	2,571	2,159	2,197
Environmental Control Laboratory Training	-	-	1,188
<b>Total Training (person-hours)</b>	<b>96,229</b>	<b>138,720</b>	<b>168,211</b>
Training Hours per Person (hours per person)	24.06	22.91	27.01
OSH Training Hours per Person (hours per person)	12.07	12.38	18.16



## Economic Performance Indicators

Production	2020	2021	2022
Raw Steel Production (million tons)	3.26	3.53	3.13
İÇDAŞ Raw Steel Production as a Percentage of Türkiye's Raw Steel Production (%)	9.11	8.75	8.92
(Türkiye's Raw Steel Production (million tons))	(35.80)	(40.36)	(35.10)
Sale/Export	2020	2021	2022
Consolidated Net Sales (billion TL)	15.733	29.948	75.817
Energy	30.00%	22.78%	41.27%
Steel	66.28%	72.57%	53.64%
Other	3.72%	4.65%	5.09%
Total number of countries where steel is exported	54	40	46
Total steel exports (million USD)	799,000,000	1,380,631,262	1,288,310,471
*Ranking among Türkiye's Top 1000 Exporters - TİM Data			
General ranking	15	12	16
Sectoral ranking	2	2	2
** Overall Ranking among Türkiye's Top 500 Industrial Companies - ISO500 Data			
İçdaş Çelik Enerji Tersane ve Ulaşım Sanayi A.Ş.	12	11	12
İçdaş Elektrik Enerjisi Üretim ve Yatırım A.Ş.	81	104	36

\*Türkiye's Top 1000 Exporters Research, Turkish Exporters Assembly (TİM), 2022

\*\*Türkiye's 500 Top Industrial Companies, Istanbul Chamber of Industry (İSO), 2022

## GRI CONTENT INDEX

<b>Declaration of Use</b>	İÇDAŞ has reported the information specified in the GRI Content Index for the period from January 1, 2022, to December 31, 2022, in reference to the GRI Standards.
<b>GRI 1</b>	GRI 1: Core 2021

GRI Standard		Disclosures	Title
GRI 2: General Disclosures 2021	2-1	Organizational details	Corporate Profile From Establishment to Present: İÇDAŞ Our Group Companies Product and Services İÇDAŞ in Sector Awards
	2-2	Entities included in the organization’s sustainability reporting	Scope of the Report
	2-3	Reporting period, frequency and contact point	Our Next Report
	2-4	Restatements of information	Performance Indicators
	2-6	Activities, value chain and other business relationships	Corporate Profile Product and Services
	2-7	Employees	Occupational Health and Safety
	2-9	Governance structure and composition	Good Governance Occupational Health and Safety
	2-15	Conflicts of Interest	Business Ethics, Competition, Corruption
	2-16	Communication of critical concerns	Stakeholder Engagement
	2-19	Remuneration policies	Respecting Human Rights



GRI Standard		Disclosures	Title
GRI 2: General Disclosures 2021	2-22	Statement on sustainable development strategy	Sustainability Strategy and Management Sustainability Policy
	2-23	Policy commitments	Our Sustainability Commitment Business Ethics, Competition, Corruption
	2-24	Embedding policy commitments	Our Sustainability Commitment Our Contributions and Collaborations for Sustainable Development Goals Our Sustainability Goals
	2-26	Mechanisms for seeking advice and raising concerns	Respecting Human Rights Stakeholder Engagement
	2-27	Compliance with laws and regulations	Business Ethics, Competition, Corruption
	2-28	Membership associations	Corporate Memberships
	2-29	Approach to stakeholder engagement	Stakeholder Engagement
	2-30	Collective bargaining agreements	Respecting Human Rights Occupational Health and Safety
GRI 3: Material Topics 2021	3-1	Process to determine material topics	Materiality Analysis
	3-2	List of material topics	Materiality Analysis
	3-3	Management of material topics	Materiality Analysis



GRI Standard		Disclosures	Title
<b>GRI 200 Economical</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Customer Profile Risk and Opportunity Analysis Together with the Society
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	Customer Profile Countries We Export
	201-2	Financial implications and other risks and opportunities due to climate change	Risk and Opportunity Analysis
GRI 203 Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	Together with the Society
<b>Procurement Practices</b>			
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	Responsible Supply Chain
<b>Anti-corruption</b>			
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	Business Ethics, Competition, Corruption
	205-2	Communication and training about anti-corruption policies and procedures	Business Ethics, Competition, Corruption
	205-3	Confirmed incidents of corruption and actions taken	No confirmed cases of corruption were identified during the reporting period
<b>Anti-competitive Behaviour</b>			
GRI 206: Anti-competitive Behaviour 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Business Ethics, Competition, Corruption



GRI Standard		Disclosure	Title
<b>GRI 300 Çevresel</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Environmental Sustainability Zero Waste
GRI 301: Materials 2016	301-1	Materials used by weight or volume	Environmental Sustainability Zero Waste
	301-2	Recycled input materials used	Environmental Sustainability Zero Waste
<b>Energy</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Energy Transition and Carbon Neutrality
GRI 302: Energy 2016	302-1	Energy consumption within the organization	Energy Transition and Carbon Neutrality
	302-2	Energy consumption outside of the organization	Energy Transition and Carbon Neutrality
	302-3	Energy intensity	Energy Transition and Carbon Neutrality
	302-4	Reduction of energy consumption	Energy Transition and Carbon Neutrality
	302-5	Reductions in energy requirements of products and services	Energy Transition and Carbon Neutrality
<b>Water and Wastewater</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Water Protection and Resource Protection

GRI Standard		Disclosure	Title
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	Water Protection and Resource Protection
	303-2	Management of water discharge-related impacts	Water Protection and Resource Protection
	303-3	Water withdrawal	Water Protection and Resource Protection
	303-4	Water discharge	Water Protection and Resource Protection
	303-5	Water consumption	Water Protection and Resource Protection
<b>Biodiversity</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Nature Protection and Biodiversity
GRI 304: Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Nature Protection and Biodiversity
	304-2	Significant impacts of activities, products and services on biodiversity	Nature Protection and Biodiversity
	304-3	Habitats protected or restored	Nature Protection and Biodiversity
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Nature Protection and Biodiversity
<b>Emissions</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Risk and Opportunity Analysis Energy Transition and Carbon Neutrality

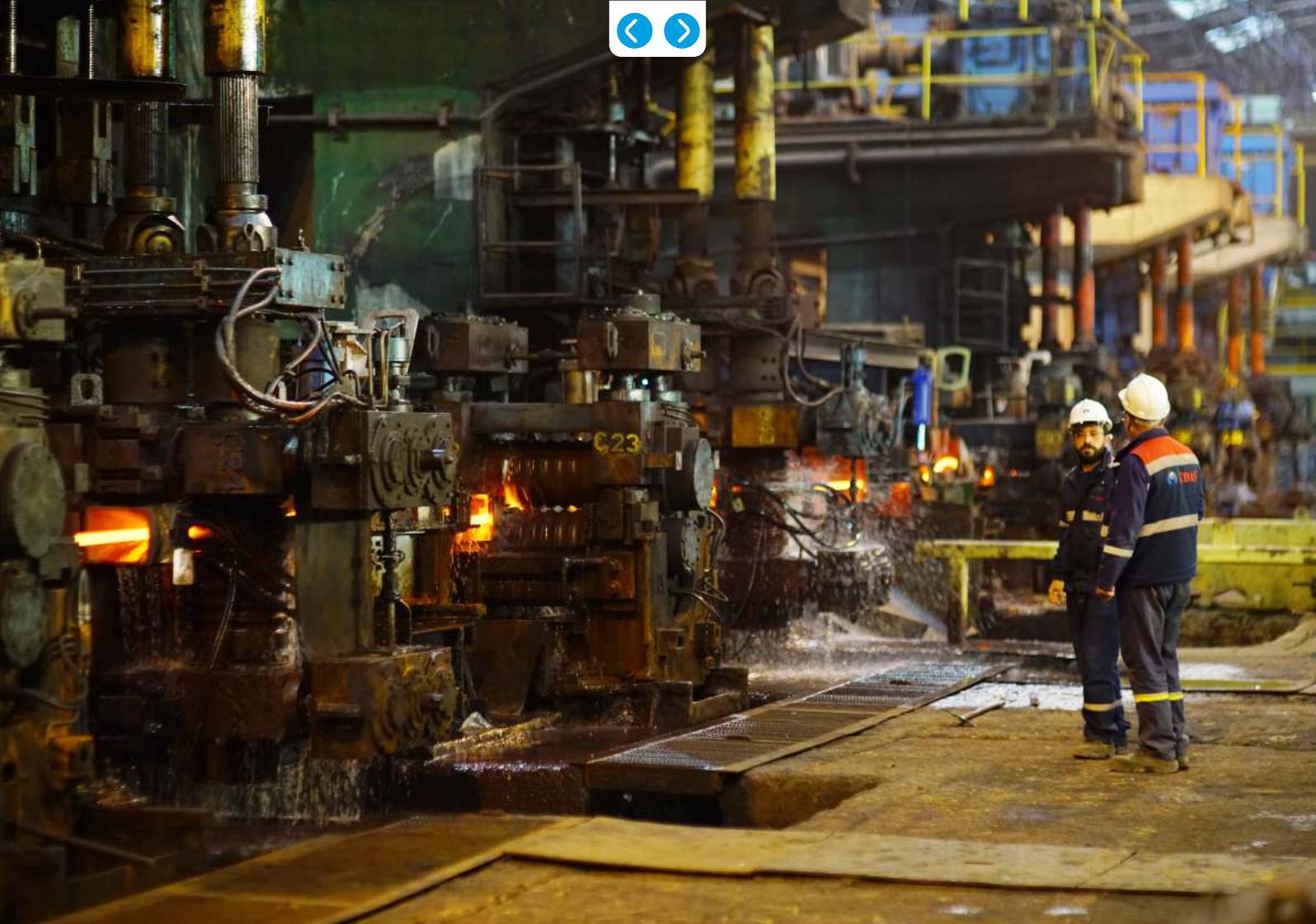


GRI Standard		Disclosure	Title
GRI 305: Emissions 2016	305-1	Disclosure 305-1 Direct (Scope 1) GHG emissions	Energy Transition and Carbon Neutrality
	305-2	Energy indirect (Scope 2) GHG emissions	Energy Transition and Carbon Neutrality
	305-3	Other indirect (Scope 3) GHG emissions	Energy Transition and Carbon Neutrality
	305-5	Reduction of GHG emissions	Energy Transition and Carbon Neutrality
<b>Waste</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Zero Waste
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	Zero Waste
	306-2	Management of significant waste-related impacts	Zero Waste
	306-3	Waste generated	Zero Waste
	306-4	Waste diverted from disposal	Zero Waste
	306-5	Waste directed to disposal	Zero Waste
<b>Supplier Environmental Assessment</b>			
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	Business Ethics, Competition, Corruption

GRI Standard		Disclosure	Title
<b>GRI 400 Social</b>			
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Occupational Health and Safety
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	At İÇDAŞ, there are no additional benefits provided exclusively to temporary or part-time employees that are not offered to full-time employees
<b>Occupational Health and Safety</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Occupational Health and Safety Training
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	Occupational Health and Safety
	403-2	Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety
	403-3	Occupational health services	Occupational Health and Safety
	403-4	Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety İÇDAŞ Suggestion System
	403-5	Worker training on occupational health and safety	Training
	403-6	Promotion of worker health	Occupational Health and Safety
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health and Safety
	403-8	Workers covered by an occupational health and safety management system	Occupational Health and Safety

GRI Standard		Disclosure	Title
	403-9	Work-related injuries	Occupational Health and Safety
	403-10	Work-related ill health	Occupational Health and Safety
<b>Training and Education</b>			
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	Training
	404-2	Programs for upgrading employee skills and transition assistance programs	Training
<b>Diversity and Equal Opportunity</b>			
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	Occupational Health and Safety
	405-2	Ratio of basic salary and remuneration of women to men	Respecting Human Rights At İÇDAŞ, compensation is based on performance, and there is no gender-based discrimination in compensation."
<b>Non-discrimination</b>			
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	Respecting Human Rights There have been no cases of discrimination during the reporting period at İÇDAŞ.
<b>Freedom of Association and Collective Bargaining</b>			
GRI 407 Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Occupational Health and Safety
<b>Child Labor</b>			
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	Respecting Human Rights İÇDAŞ does not employ child labor
<b>Forced or Compulsory Labor</b>			
GRI 409: Forced or	409-1	Operations and suppliers at significant risk for	Respecting Human Rights

GRI Standard		Disclosure	Title
Compulsory Labor 2016		incidents of forced or compulsory labor	There have been no instances of forced or compulsory labor during the reporting period at İÇDAŞ.
<b>Local Communities</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis Together with the Society
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	Together with the Society
	413-2	Operations with significant actual and potential negative impacts on local communities	Together with the Society During the reporting period at İÇDAŞ, there have been no cases of violations related to the rights of local communities.
<b>Supplier Social Assessment</b>			
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	Business Ethics, Competition, Corruption
<b>Customer Privacy</b>			
GRI 3: Material Topics 2021	3-3	Management of material topics	Sustainability Strategy and Management Our Sustainability Commitment Materiality Analysis
GRI 418: Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	During the reporting period, there have been no confirmed complaints related to the breach of customer privacy or the loss of customer data at İÇDAŞ





Mahmutbey Mahallesi Dilmenler Caddesi  
No: 20 34218 Bağcılar - İstanbul / TÜRKİYE  
Telefon : +90 212 604 04 04 (pbx)  
[icdas@icdas.com.tr](mailto:icdas@icdas.com.tr) • [www.icdas.com.tr](http://www.icdas.com.tr)