



# ER-BAKIR

Sustainability Report  
2023

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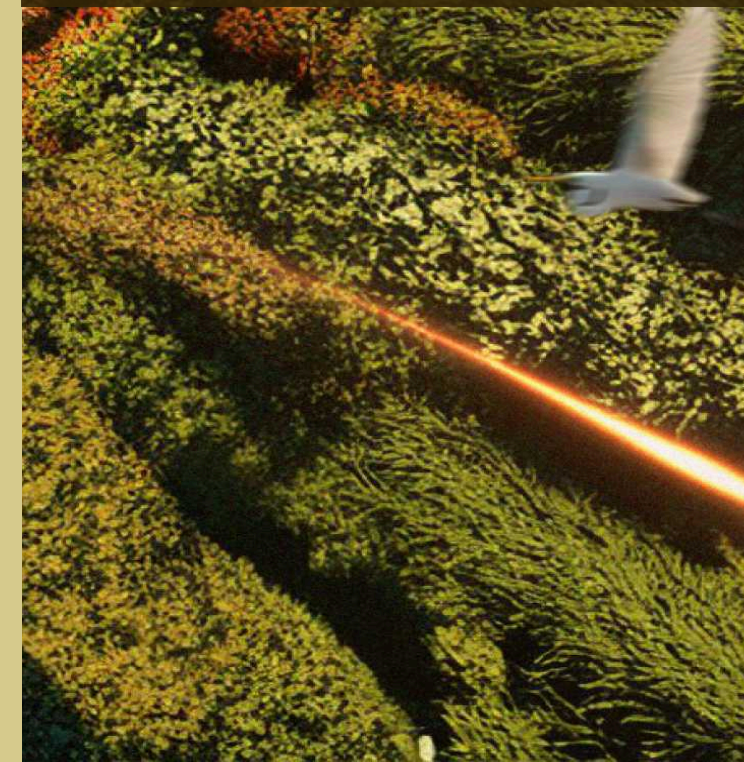
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# ABOUT THE REPORT

This sustainability report represents a significant milestone in Er-Bakır's sustainability journey, symbolizing the progress achieved in this area. Through this inaugural report, we detail our company's sustainability vision, position in the sector and the responsibilities we undertake toward our stakeholders. Our sustainability approach extends beyond corporate performance to encompass our contributions to society and the environment. Strengthening our collaboration with stakeholders and creating a more sustainable future through collective effort are among our core objectives.

## Reporting Principles and Standards

The report has been prepared with reference to the globally recognized Global Reporting Initiative Sustainability Reporting Standards. The content has been structured based on the material topics identified under the GRI framework. In addition, Er-Bakır's sustainability efforts are detailed in alignment with the Task Force on Climate-related Financial Disclosures (TCFD) methodology and the United Nations Sustainable Development Goals (SDGs).



## Reporting Scope

This report covers the period from 01.01.2023 to 31.12.2023. To provide meaningful context, certain sections include past data from 2021 and/or 2022, along with performance indicators and updated targets that extend beyond the 2023 reporting period. Throughout this timeframe, the report outlines Er-Bakır's environmental, social and governance (ESG) strategies and performance.

## Publication Date and Contact Information

This report is published annually. For more information about our sustainability report, please contact us at [erbakir@erbakir.com.tr](mailto:erbakir@erbakir.com.tr) or visit [www.erbakir.com.tr](http://www.erbakir.com.tr). We would be happy to hear your feedback and suggestions.



# MESSAGE FROM THE BOARD OF DIRECTORS

Dear Stakeholders,

As Er-Bakır, we have completed a year in which we strengthened our sustainability strategies. The year 2023 has been marked by intense economic, environmental and social challenges both nationally and globally. Fluctuations in energy and raw material prices, geopolitical tensions, extreme weather events driven by climate change and disruptions in the global supply chain have placed significant pressure, particularly on the industrial and manufacturing sectors.

Despite these challenging conditions, Er-Bakır successfully managed this period thanks to our long-term strategies and flexible business model. The resilience of our company is built not only on our strong economic and operational performance but also on our deep commitment to sustainability principles.

We continue to enhance our sustainability strategies to build a business model that is more resilient to risks and open to opportunities. Our priorities, such as resource efficiency, energy management, low-carbon production and reducing environmental impacts, have helped us maintain our competitive edge during this difficult period while further strengthening the trust of our stakeholders.

Er-Bakır aims to grow as an innovative, resilient and responsible company in the face of challenges. Our sustainability journey is grounded in an approach that integrates environmental, social and governance principles at its core.

As we celebrate the 100th anniversary of the Republic of Türkiye, we take great pride in contributing to our country's progress in industry and technology. Guided by the production strength and innovative vision fostered by our Republic, we remain committed to advancing not only for today but also for the well-being of future generations.

In this regard, we are delighted to share our first sustainability report, which outlines our sustainability performance and management strategy. We extend our gratitude to all members of the Er-Bakır family who contributed to this report and to our stakeholders who supported the process. We firmly believe that we can achieve even more together for a sustainable future.

Sincerely,

*Er- Bakır Board of Directors*





# MESSAGE FROM THE GENERAL MANAGER

Dear Stakeholders,

Since our journey began in 1981 in Denizli, we have been producing innovative solutions that address the needs of the modern world, inspired by our deep-rooted history and guided by our commitment to creating value for sustainable development. Today, as one of the leading companies not only in Türkiye but also in the global copper wire industry, we play a significant role in the global economy. From our production processes to exports, we bear the responsibility of being a brand that adds value to the world from Denizli.

As Er-Bakır, we take great pride in reaching a key milestone in our long-standing sustainability journey. With our first-ever sustainability report, we comprehensively present our environmental, social and governance performance and share our strategic goals for the future.

Sustainability is an integral part of our business model. Er-Bakır's sustainability vision has always been embedded in our operations. Minimizing our environmental impact, creating social value and adhering to corporate governance principles remain our top priorities.

Our renewable energy projects, innovative applications for water and energy efficiency and circular economy approach highlight our strengths in ensuring operational sustainability.

Export to over **50** countries  
across **6** continents



**We operate with the awareness that copper plays a critical role in sustainable development and the construction of modern societies.**

Copper is a fundamental element that enables future technologies in various fields, from electric vehicles and renewable energy systems to smart city infrastructure and communication technologies. Acknowledging our role as architects of a sustainable future, we integrate innovation and environmental responsibility into our business processes.

From our production facility in Denizli, we export to over 50 countries across six continents. As a company representing Türkiye's industrial strength on a global scale, we aim to lead our sector in sustainable production and environmental responsibility. Our copper wires, which are used in high-tech projects and all aspects of modern life, are clear indicators of our commitment to international quality standards and innovative approaches.

While contributing to our country's economic development through exports, we also support Türkiye's green transformation goals. By embracing a circular economy approach, we consider waste as a valuable resource in our production processes, thereby reducing our carbon footprint. Our commitment to environmental protection through modern technologies focuses on managing natural resources sustainably and minimizing our environmental impact.

Through our digitalization-focused investments, we optimize production processes, enhance operational efficiency and utilize energy resources more effectively. We invest in renewable energy through our solar power plants and implement water-saving systems to conserve natural resources. In waste management, we follow a zero-waste target by implementing a comprehensive recycling program.

We invest in the future and move forward together. At Er-Bakır, we recognize that our most valuable asset is our people, and we invest in our human capital to build a sustainable future. We implement training programs to enhance our employees' knowledge and skills while fostering an inclusive work environment that promotes diversity and equality. Through the Er-Bakır Science High School, which we established in Denizli, we contribute to education and support the development of future generations.

Through our social responsibility projects, we aim to create socio-economic value in society. From education and environmental initiatives to cultural projects and social aid programs, we actively engage in efforts to fulfill our corporate citizenship responsibilities.

Our past achievements serve as the foundation for building a stronger future through the innovative steps we take today. In this context, I would like to emphasize that the contributions of all our stakeholders are invaluable in achieving our sustainable development goals.

I extend my sincere appreciation to all my colleagues and business partners who contributed to this important effort. With the support of our valued stakeholders, I am confident that we will continue to advance our environmentally responsible, socially beneficial and economically valuable business model.

Sincerely,

**Macit TAŞKIN**

*General Manager of Er-Bakır*



# BOARD OF DIRECTORS



## • Müjdat Keçeci- Chairman of the Board

Müjdat Keçeci was born in 1947 in Denizli and completed his primary, secondary and high school education in Denizli. He later attended Istanbul University Faculty of Law and graduated in 1970. He began his career as an independent lawyer and continued in this role until 1980. Afterward, he held senior executive positions, including a board membership at İktisat Bankası and an active role in the management of Ergür Kablo A.Ş. In 1983, he was appointed as the General Manager of Er-Bakır Elektrolitik Bakır Mamulleri A.Ş. and currently serves as the Chairman of the Board. In addition to his responsibilities at Er-Bakır, he has held leadership and membership positions in various organizations, including Denizli Chamber of Industry, TOBB High Coordination Board, TOBB Industry Chambers Council and several foundations and associations.



## • Vedat Erikoğlu- Deputy Chairman of the Board of Directors

He was born in 1952 in Denizli. He completed his high school education at İzmir Private Turkish College and earned his higher education degree in Chemical Engineering from Ege University. Vedat Erikoğlu began his professional career at Ergür Kablo ve Bakır Tel San. A.Ş., later playing an active role in the establishment of Er-Bakır and Erikoğlu Emaye. To consolidate industrial and commercial enterprises under one umbrella, he co-founded Ahmet Nuri Erikoğlu Holding A.Ş. with his siblings, naming it after their father. Subsequently, he established Erikoğlu Endüstri Holding A.Ş. together with his brother Sedat Erikoğlu. He currently serves as Vice Chairman of the Board at Er-Bakır Elektrolitik Bakır Mamulleri A.Ş., Ahmet Nuri Erikoğlu Holding A.Ş., Başak Metal Tic. ve San. A.Ş. and Arenko Elektrik Üretim A.Ş.. Additionally, he holds the position of Chairman of the Board at Erikoğlu Endüstri Holding A.Ş., Erikoğlu Emaye Bakır Tel A.Ş. and Erikoğlu Elektrik San. Tic. A.Ş., while actively continuing his professional career.



## • Sedat Erikoğlu- Deputy Chairman of the Board of Directors

Sedat Erikoğlu was born in 1962 in Denizli. He completed his primary and secondary education in Denizli, his high school education in İzmir, and his higher education in the United Kingdom, specializing in Business Administration. He began his professional career in 1985 at Er-Bakır Elektrolitik Bakır Mamulleri A.Ş., where he still holds a senior executive position. Later, to consolidate industrial and commercial enterprises under one umbrella, he co-founded Ahmet Nuri Erikoğlu Holding A.Ş. with his siblings, named after their father, and subsequently established Erikoğlu Endüstri Holding A.Ş. with his brother Vedat Erikoğlu. Actively engaged in business, Sedat Erikoğlu currently serves as Vice Chairman of the Board and Chairman of the Executive Committee at Er-Bakır Elektrolitik Bakır Mamulleri A.Ş., Başak Metal Tic. ve San. A.Ş., Arenko Elektrik Üretim A.Ş., Ahmet Nuri Erikoğlu Holding A.Ş., Erikoğlu Endüstri Holding A.Ş., Erikoğlu Emaye Bakır Tel San. A.Ş., and Erikoğlu Elektrik San. Tic. A.Ş.. Additionally, he holds the position of Chairman of the Board at C.N. Wire Corporation.



# ABOUT ER-BAKIR





## ABOUT ER-BAKIR

Founded in 1981 in Denizli, Er-Bakır operates on a 200,000 m<sup>2</sup> production site, including 70,000 m<sup>2</sup> of indoor manufacturing space at its facility in Denizli. Supplying copper, copper alloys, and conductors to industries such as energy, telecommunications, automotive, medical, aerospace, defense, rail transportation systems and renewable energy, Er-Bakır plays a vital role in sustaining modern life by meeting the essential needs of these sectors. As a globally exporting company, it has become a well-recognized brand worldwide, known for its commitment to superior quality and service excellence.

Each year, we strengthen our leadership position in the industry with our continued success. We consistently rank among the top companies on the list of Türkiye's 500 Largest Industrial Enterprises, published by the Istanbul Chamber of Industry.

As a driving force in the industry within Türkiye, we established C.N. WIRE Corporation in the United States as part of our strategic growth objectives. Located in Santa Teresa, New Mexico, C.N. WIRE is a globally recognized copper wire manufacturer, producing bare and tinned copper wire conductors for all markets within the wire and cable industry. Additionally, we take great pride in producing copper wires used in high-tech projects, including those developed by NASA.

We conduct all our operations in compliance with national and international standards, ensuring that our processes are certified accordingly. From quality management and environmental responsibility to occupational health & safety and energy management, we adhere to the highest industry standards.

Accordingly, our certifications, including **IATF 16949, ISO 9001, ISO 14001, ISO 45001, ISO 50001 and ISO 27001**, not only strengthen our competitive edge in the global market but also guarantee the reliability and sustainability of the services we provide to our customers



**As Er-Bakır, we continuously invest in technological innovations and sustainability to further advance our achievements in the industry. Moving forward, we will remain fully committed to maintaining our leadership position in both local and global markets.**

# Mission, Vision and Corporate Values

## Our Mission

To create value for stakeholders by applying contemporary management systems and delivering high-quality products and services to industries worldwide that utilize copper conductors.

## Our Vision

To become a global leader within the next ten years in targeted products and markets across the conductor and related industries, recognized for innovation, leadership, and strong market presence.

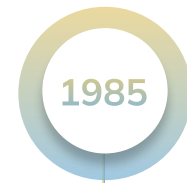
## Corporate Values

- Reliability
- Continuous Improvement
- Inclusiveness
- Self-criticism and Empathy
- Initiative-Taking
- Customer Focus
- Creativity
- Efficiency
- Innovation
- Social Responsibility (Environment, Health, Education)
- Commitment to the Organization
- Empowerment
- Flexibility





# Milestones

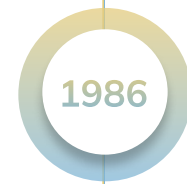


### The Beginning of Our Production Journey:

We embarked on our production journey with a monthly output of 32 tons of wire rod and today, we take great pride in reaching an annual production capacity of 200,000 tons.

### First Export:

We took our first step into global trade by exporting to Iraq and Iran.



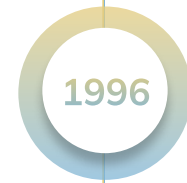
### Establishment of the Wire Drawing Unit:

We commissioned our first wire drawing machine and refining unit. In the same year, we opened our Istanbul office, achieving our goal of being closer to our customers.



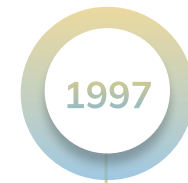
### Commissioning of the Wastewater Treatment Plant:

As part of our environmental responsibility, we launched our wastewater treatment plant.



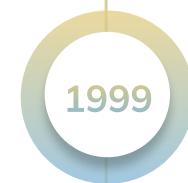
### Quality Management System Certification:

In line with our goal to support growth through systematic processes, we obtained the TSE ISO EN 9002 Quality Management System certification.



### Modernization of the Continuous Casting Facility:

We modernized our continuous casting facility, and in 1999, we commissioned a new plant equipped with state-of-the-art technology.



### Entry into the Automotive Industry:

We started supplying products to the automotive industry and earned the QS 9000 certification.



### National Quality Movement Goodwill Declaration:

We initiated Total Quality Management (TQM) efforts.



### Environmental and Occupational Health & Safety Management Systems:

By obtaining the ISO 14001 Environmental Management and OHSAS 18001 Occupational Health & Safety certifications, we reaffirmed our commitment to sustainable production and workplace safety.



### ISO 9000:2000 Certification:

We strengthened our quality standards by obtaining the ISO 9000:2000 certification.



### Aegean Region Grand Quality Award:

We received the Aegean Region Grand Quality Award from KalDer (Turkish Quality Association).



### Enterprise Resource Planning:

We implemented the SAP core modules, digitalizing our business processes.



### Job Evaluation and Compensation System:

We established a job evaluation and compensation system for all positions.



### Domestic Market Leadership:

We became the largest company in the industry in Türkiye based on sales volume.



### Performance Measurement and Evaluation:

We implemented a Performance Measurement and Evaluation System and were once again recognized as Anatolia's Largest Company.



### CN Wire USA Investment:

We strengthened our global presence by establishing our first international production company, CN Wire, in the USA.



### ISO/IEC 27001 Certification:

By obtaining the ISO/IEC 27001 Information Security Management certification, we reaffirmed our commitment to security.



### Authorized Economic Operator (AEO) Status:

As the first company in Denizli and one of the select firms in the Aegean Region, we obtained the Authorized Economic Operator (AEO) status.



### Successful Team of the Year Award:

We received the "Successful Team of the Year" award from KalDer İzmir Branch.



### Successful Team of the Year Award:

We were once again honored with the "Successful Team of the Year" award by KalDer İzmir Branch.



### ISO 50001 Certification:

We enhanced our energy management system by obtaining the ISO 50001 certification, officially recognizing our energy efficiency efforts.

## Subsidiaries

### Arenko Elektrik Üretim A.Ş.

Established in 2000 on a total area of 7,988 m<sup>2</sup>, Arenko Elektrik Üretim A.Ş. operates to meet Er-Bakır's electricity and steam needs. Acquired by Er-Bakır in 2007, Arenko plays a crucial role in supplying the company's entire energy demand. With an annual production capacity of 95,888,000 kWh of electricity and 50,905,120 Kcal of steam, Arenko makes a significant contribution to the energy sector. The company remains committed to sustainable and environmentally responsible energy production in the future.

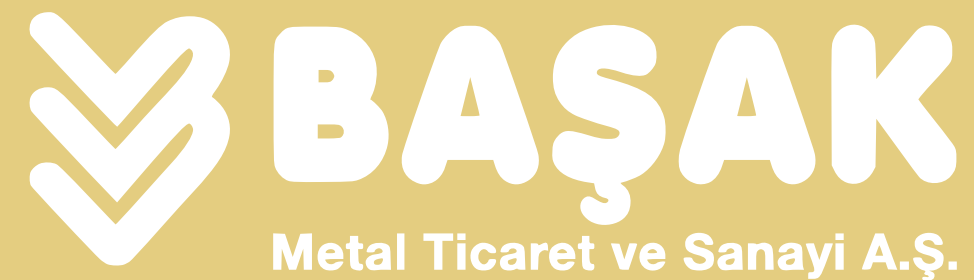
### CN Wire

Founded in 1998 to expand Er-Bakır's presence in the U.S. market, CN Wire is a global copper wire manufacturer located in Santa Teresa, New Mexico. Operating from a newly constructed 25,000 m<sup>2</sup> state-of-the-art production facility, CN Wire specializes in the production of bare, tin-coated, and nickel-plated copper wire conductors.

With a strategically positioned warehouse network across the United States, CN Wire effectively meets supply chain demands while delivering high-value-added products for industries such as automotive and aerospace. Through its commitment to high-quality service, CN Wire has established itself as a trusted brand in the U.S. market.

### Başak Metal Ticaret ve Sanayi A.Ş.

Established in 1993 under Ahmet Nuri Erikoğlu Holding, Başak Metal Ticaret ve Sanayi A.Ş. is a company registered with the Denizli Chamber of Commerce. The company's core business activities include the marketing and export of metals, textiles, and chemical products, with a primary focus on distributing Er-Bakır Elektrolitik Bakır Mamulleri A.Ş. products. Today, Başak Metal exports to over 50 countries, maintaining a strong position and broad influence in international markets.





# Highlights in 2023



**769**  
**Employees**



**145,000 Tons**  
**of Production**



**USD 1,678,000,000**  
**in Sales**



**USD 545,000,000**  
**in Export Revenue**



**Ranked 36th** in Türkiye's 500  
Largest Industrial Enterprises  
**(ISO 500)** list



# Production Process and Products

## Production Process



### Fire Refining:

At Er-Bakır, refining is carried out using traditional methods. Blister copper and suitable scrap copper, sourced from domestic and imported suppliers, are melted in a Thomas furnace. During the melting process in the Thomas furnace, the copper emits a remarkable green flame. The molten copper, once poured into anode molds, solidifies into a form suitable for loading into electrolysis tanks.



### Electrolytic Refining:

The fire-refined copper, cast into anodes, is loaded into electrolysis tanks for electrolytic refining. During the prolonged electrolytic refining process, pure copper accumulates on cathode plates.



### Continuous Casting:

The copper cathodes, melted in the shaft furnace, flow into the holding furnace, then proceed through launders and a tundish channel to the casting machine. One of the critical stages that determines wire rod quality is the solidification of molten copper into bars through the Hazelett casting machine. The hot copper bars are processed in the rolling mill, where they are transformed into Ø8mm wire rods. After leaving the rolling mill, the wire rods enter a surface cleaning and cooling line, where a solution is sprayed onto them. Finally, they are wound into coils by the coiling machine, making them ready for sale.



### Upward Casting:

The upward vertical casting technology is utilized in the production of oxygen-free copper (OFC), copper-magnesium (CuMg), copper-silver (CuAg), copper-tin (CuSn), and copper-nickel (CuNi) alloys. This process involves melting high-purity copper and adding alloying elements in the desired ratio, enabling the casting of special alloyed products.



### Conform Process:

This process combines surface shaving and extrusion, while simultaneously performing a continuous extrusion-type deformation, generating heat that results in an annealed structure without requiring external heating. This complex process allows for both cross-section reduction and expansion.

Additionally, it enables the production of non-circular profiles, expanding its application beyond round-section products. This process is particularly utilized in producing high-strength alloyed products for the automotive and railway industries.



### Drawing and Stripping:

This process is used to achieve high surface precision by combining wire drawing and stripping. Using special rolling mills, it enables the production of products with specific profiles. A trolley method is employed in this line to manufacture specially profiled contact wires for rigid catenary systems in railway applications.

**Drawing:**

The electrolytic copper wire rods, produced in the continuous casting facility, enter the Wire Drawing and Stranding Facility, which is equipped with state-of-the-art technology to achieve their final shape. The 8mm wire rods are processed through coarse wire drawing machines, producing annealed or hard copper wires of various diameters. These coarse wires, ranging from 1.00mm to 4.50mm, are either directly shipped or used as input wires in tin plating, nickel plating, medium wire drawing, fine wire drawing, and multi-wire drawing machines. By applying cold drawing methods, single or multi-wire products can be reduced to diameters as small as 0.05 mm.

**Plating :**

In addition to bare copper wires, tin or nickel-plated copper wires are produced based on customer requirements and industry standards.

**Tin Plating:**

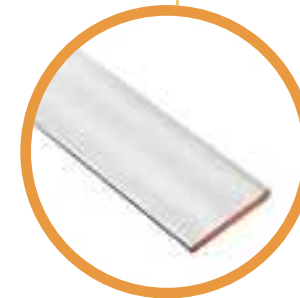
Wires with diameters ranging from 1.00 mm to 2.90 mm can be tin-plated up to a thickness of 25 microns using the electrolytic plating method.

**Nickel Plating:**

Wires with diameters between 0.80mm and 2.60mm can be nickel-plated up to 27% by weight using the electrolytic plating method. The produced tin and nickel-plated wires can be directly shipped or used as input wires in medium wire drawing and multi-wire drawing machines, as well as in stranding machines.

**Stranding:**

Bare, tin-plated, and nickel-plated wires, produced through single-wire and multi-wire drawing machines, are used as input wires in stranding machines. Input wires are processed in Double Twist, Single Twist, Planet Strander, and Rigid Strander machines based on customer specifications and industry standards. They are stranded into geometric structures such as normal stranding, rope stranding, and smooth stranding, with cross-sections ranging from 0.05 mm<sup>2</sup> to 400 mm<sup>2</sup>, and packaged accordingly before shipment.

**Ribbon:**

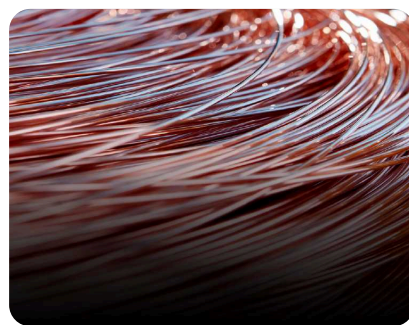
PV Ribbon Wire is a solder-coated copper conductor used in photovoltaic solar panels. Its production process begins with oxygen-free copper (OFC) or electro-tough pitch (ETP) copper input wires, which are first rolled into a flat shape using the rolling method. Following the flattening process, the wire undergoes surface cleaning and annealing. Immediately after the annealing step, it is tin-lead coated using the hot-dip method, forming a Sn60Pb40 solder alloy on the wire surface. Finally, the wire is cooled and wound onto the specified spool types.

## Products



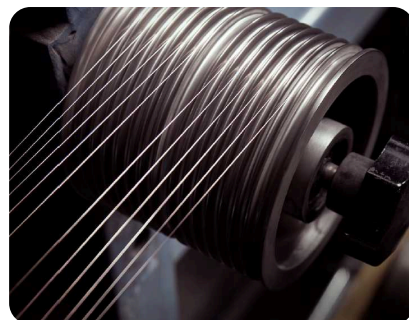
### Wire Rod

At Er-Bakır, high-quality ETP and OFC wire rods are produced using cathode copper with a minimum purity of 99.90%.



### Single Wires

Wire rods are drawn using single wire drawing machines and can be processed as annealed or hard-drawn wires. These wires are also used as input materials for tin or nickel plating machines.



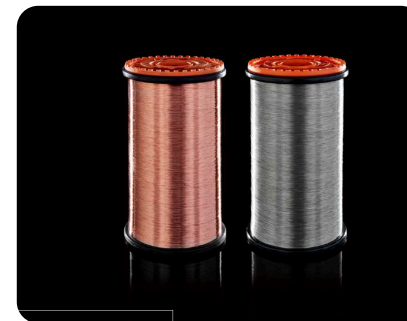
### Multi Wires

Input wires from the coarse wire process are drawn using state-of-the-art multi-wire drawing machines and wound either dynamically or statically, depending on customer demand.



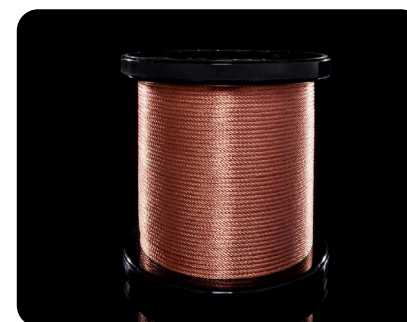
### Stranded Wires

Bare, tin-plated, or nickel-plated wires produced through single or multi-wire drawing machines are processed in Double Twist, Single Twist, Planet, and Rigid stranding machines. Based on customer requirements and industry standards, they are stranded in various geometric structures (normal stranding, rope stranding, unilay concentric stranding, smooth stranding, etc.) with cross-sections ranging from 0.05 mm<sup>2</sup> to 360 mm<sup>2</sup>.



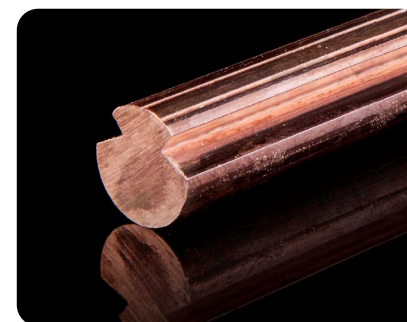
### Bobbin Winding

Multi wires are wound onto various types of bobbins using bobbin transfer machines.



### Alloys

Er-Bakır produces high-quality, high-precision, and environmentally friendly copper alloy wires in compliance with ISO 6722 standards. These wires are used in industries requiring strict mechanical specifications, such as aviation, automotive, electronics, and railway sectors.



### Railway

Er-Bakır manufactures various types of railway conductors, including contact wires, feeder wires, pendulum wires, messenger wires, and rope products.

# Er-Bakir Product Safety and Customer Information Practices

At Er-Bakir, we implement meticulously designed safety protocols to ensure product safety and maximize customer satisfaction. Proper transportation, storage, and usage of products play a critical role in reducing waste and promoting recycling, thereby minimizing environmental impact. We ensure that our customers receive accurate, timely, and effective information to mitigate risks associated with handling and transportation.

As part of these efforts, our customer information guide provides comprehensive details to ensure the efficient and safe use of our products. Through technical guidance, we not only enhance the efficiency and safety of product usage but also mitigate potential risks and strengthen sustainable business relationships.



## Packaging Recycling and Waste Management

We guide our customers on adhering to specified procedures for the recycling of packaging materials. The proper recycling of steel and plastic reels, baskets, and pallets contributes to our sustainability goals, while ensuring that waste is managed in compliance with legal regulations. We share this responsibility with our customers to promote a more sustainable future.



## Product Storage and Usage

To prevent potential risks during the storage and usage of products, our customers are provided with detailed guidance on various aspects, including the protection of packaged products and the use of appropriate handling equipment. Special emphasis is placed on key preventive measures such as shielding products from dust, humidity, and chemical vapors to prevent oxidation and surface damage.



## Product Receipt and Incoming Inspection

We provide our customers with step-by-step instructions for the inspection process during product delivery. We request that any transportation-related damages be identified and reported promptly. For damaged products, we require detailed feedback, including explanations, photographs, and videos, as these documents are crucial for improving our processes.



## Complaint and Return Management

If any product non-conformities are detected, our customer notification procedures require the submission of detailed information, including the relevant batch number, a description of the issue and appropriate supporting evidence (such as samples, photographs, or videos). During product returns, appropriate packaging and handling are ensured to protect items from impact-related damage, aiming for a fast and effective resolution of the issue.

# Quality Management Systems

At Er-Bakır, we aim to achieve high-quality and safety standards in copper wire production and implement a robust quality management system in line with this objective. Our quality management systems are structured based on international standards, covering energy management, product quality, environmental responsibility, occupational health and safety, information security, and overall quality management.

The various quality and system certifications we hold support us in achieving customer satisfaction and sustainable production goals, while also enabling us to continuously improve product quality and establish reliable and environmentally responsible production processes.



**ISO 50001 Energy Management System:** We continuously monitor and improve our energy performance in our production processes, optimise our use of resources and fulfil our environmental responsibility by increasing energy efficiency.



**IATF 16949 Automotive Quality Management System:** This certification proves that our copper wire products used in the automotive industry comply with high quality and safety standards. We recognize the critical importance of reliability for products used in a sensitive industry like automotive, and with our IATF 16949 certification, we demonstrate that our products meet these requirements and are fully suitable for the industry.



**ISO 14001 Environmental Management System:** Reducing environmental impact in our production processes is essential not only for the environment but also for product quality. By optimizing resource utilization and employing eco-friendly materials and processes, we offer our customers a more sustainable and responsible production approach.



**ISO 45001 Occupational Health and Safety Management System:** The safety and well-being of our employees are crucial for the continuity of high-quality production processes. By providing a healthy and safe working environment, we support our employees in achieving higher performance in production processes, thereby directly contributing to product quality.



**ISO/IEC 27001 Information Security Management System:** Information security ensures the trust relationship we maintain with our customers. By safeguarding customer data, we prove ourselves as a reliable business partner and manage all our processes with transparency and security.



**ISO 9001 Quality Management System:** ISO 9001 is the general quality management system of Er-Bakır, ensuring the continuity of customer satisfaction and high-quality standards. It guarantees that our products comply with the defined quality criteria at every stage of production.



## Success Shaped by International Standards

The management systems we have in place make significant contributions to our operational sustainability in many aspects. These systems ensure that our company's operational processes are carried out in compliance with international standards, while also enhancing competitiveness and contributing to environmental, economic, and social sustainability.



### Sustainable Product Quality

It requires the documentation, monitoring and continuous improvement of all processes that affect quality. For Er-Bakır, this approach means standardizing every step of the copper wire production process, minimizing variability, and ensuring consistent quality. This is particularly critical in industries such as automotive and electronics, where reliable and high-quality materials are essential.



### Enhanced Customer Satisfaction

One of Er-Bakır's core principles is customer focus. With the system certifications we hold, we place customer needs at the center of our activities and strive to meet customer demands and expectations at the highest level.



### Process Efficiency

At Er-Bakır, we adopt a systematic approach to organizing workflows and enhancing operational efficiency. By analyzing business processes, we identify bottlenecks, eliminate inefficiencies, and thereby minimize waste. Through our resource optimization practices, we reduce production costs while making our operations leaner and more effective.



# R&D and Innovation

## Innovation and Competitive Strength

At Er-Bakir, we conduct our R&D activities with a strategic approach aligned with our goals of sustainable growth and industry leadership. Our R&D projects are structured under three main categories: fundamental research, product development and process development, all aimed at enhancing our innovation capabilities and leading the industry.

## Objectives of our R&D Projects

The primary objective of our R&D projects is to optimize the copper wire production process, improving efficiency while contributing to sustainability.

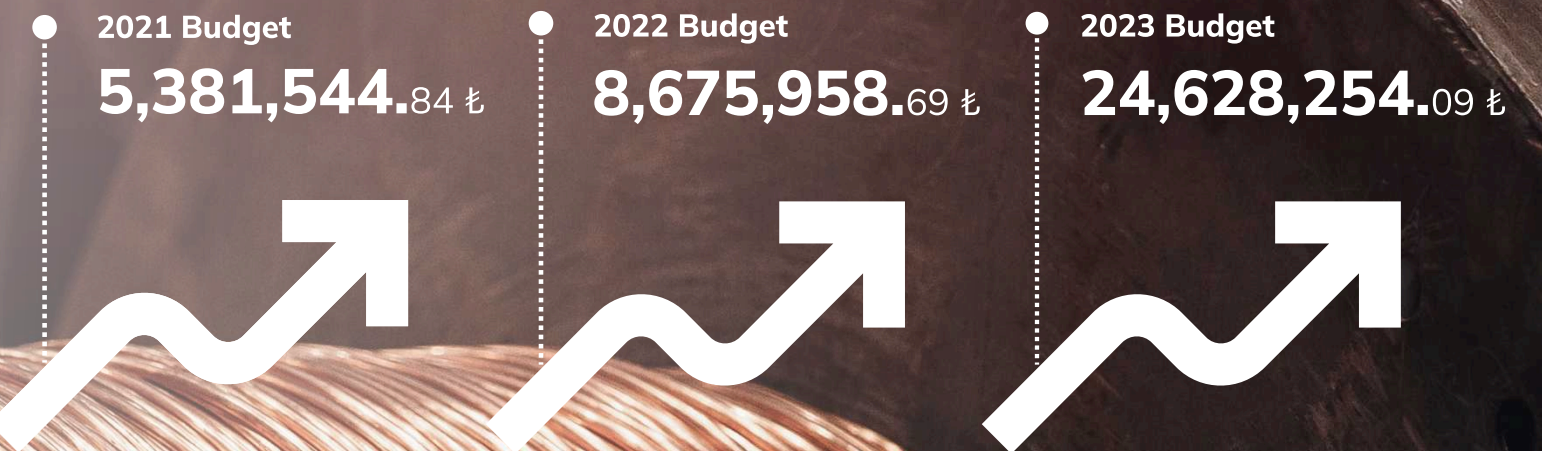
- Reducing production costs,
- Enhancing product quality,
- Expanding product variety,
- Contributing to the company's strategic goals,
- Developing technical expertise and know-how.

With the mission of developing more durable and high-quality copper wires, we aim to gain a competitive advantage and strengthen Er-Bakir's market leadership.

## Key expected benefits of our R&D projects

- Production Efficiency: Lowering production costs and increasing energy efficiency,
- Reduction of Environmental Impact: Supporting environmental sustainability by minimizing waste and scrap,
- Technological Advancement: Developing innovative solutions through advanced technology adoption,
- Customer Satisfaction: Enhancing customer satisfaction with higher-quality products,
- Economic Gains: Expanding into new markets to accelerate economic and commercial growth.

“ Between 2021 and 2023, we implemented our R&D projects with a total budget of 38,685,757.62 TL. ”



	R&D Employee Count (People)	Number of Developed Products (Units)
2021	21	4
2022	21	1
2023	21	5



## Collaborated Projects

### University

### Collaborated Area

**ERB-ARGE-0038**  
Feasibility Study on Electrolytic Cyanide-Free Silver Plating

Izmir Institute of Technology

University-Industry Collaboration

**ERB-ARGE-0047**  
Investigation of Tribological Properties in CuMg0.5 Alloy Contact Wire Based on Process Variables

Pamukkale University

University-Industry Collaboration

**ERB-ARGE-0042**  
Study on the Effect of Phosphorus Addition on Casting Conditions and Product Properties in Copper-Tin Alloy Products

Pamukkale University

University-Industry Collaboration

**ERB-ARGE-0033**  
Production of Graphene-Coated Copper Wire

Pamukkale University

University-Industry Collaboration

**ERB-ARGE-0036**  
Investigation of the Effects of Different Alloying Elements and Ratios on Continuous Resistive Annealing Parameters

Pamukkale University

University-Industry Collaboration

**ERB-ARGE-0037**  
Statistical Evaluation of the Effects of Multiple Process Parameters on Microstructure and Mechanical Properties in Cold Pressure Welding

Pamukkale University

University-Industry Collaboration

## Sustainable Supply Chain Management

At Er-Bakır, we adopt an approach that prioritizes quality, efficiency, and environmental compliance in our supply chain. We meticulously carry out all steps, from supplier selection to evaluation and development processes, in line with this approach. Our goal is not only to meet our current needs but also to build long-term and sustainable relationships with our suppliers.



**Er-Bakır aims to establish long-term, trust-based, and sustainable business relationships with its suppliers. By maintaining transparent communication with all stakeholders in our supply chain, we focus on growing and improving together.**

In the process of identifying new suppliers, we base our decisions on sustainability criteria such as compliance with quality standards, environmental responsibility, and ethical business practices. We conduct a detailed analysis of suppliers' past performance, operational efficiency, and social responsibility policies.

By improving our supplier evaluation methods, we conduct more accurate assessments, build stronger supplier relationships, and create a more resilient supply chain. We manage our evaluation process within a comprehensive and standardized framework. By assigning weights to criteria based on their importance and using standardized scoring systems for each criterion, we ensure objectivity in our evaluations and enable more accurate comparisons between suppliers. We regularly update our evaluation criteria according to market conditions, industry standards, and internal requirements, ensuring that the criteria remain relevant.

We accelerate our evaluation process by utilizing data analytics and automation. Through supplier management software, we automate data collection, scoring, and reporting processes, allowing us to access real-time information and minimize human errors in our evaluations. By automating performance tracking, we monitor on-time delivery rates, defect rates, and communication response times in real time, quickly identifying and addressing potential issues.

By incorporating cross-functional inputs, we make our evaluation process more comprehensive. We gather insights from different departments such as procurement, quality assurance, finance, and logistics, which interact directly with suppliers, ensuring that each unit conducts its own specialized evaluation and creating a broader assessment framework.

We strengthen our feedback mechanisms by maintaining regular and open communication with our suppliers. We hold periodic evaluation meetings to share performance analyses, develop improvement plans, and initiate enhancement programs for suppliers who fail to meet established targets. In this way, we ensure the long-term sustainability of our supply chain and reinforce our collaboration. We regularly review and update our supplier evaluation methods, ensuring more accurate results in the long run.



## Supplier Selection and Evaluation Process

We conduct a rigorous evaluation process for our critical suppliers to ensure the quality of materials and services used in procurement processes. We expect suppliers that directly impact product quality to meet and maintain high-quality standards.

Our suppliers are evaluated using a scoring system based on importance criteria, covering multiple aspects such as environmental management, quality, flexibility and capacity.

## Documentation and Certification Requirements

Our suppliers are expected to comply with fundamental quality and environmental management standards such as ISO 9001, ISO 14001, and ISO 45001 in their business processes. Supplier documents are recorded in the SAP system, where their validity is automatically tracked. The system we have established contributes to the long-term monitoring of supplier sustainability while enabling the identification of non-compliant suppliers.

## Supplier Development Program

At Er-Bakır, we support our suppliers with a continuous improvement approach. Suppliers with low performance evaluations are included in the Development Program. Within this program, various methods such as on-site audits, training, and certification support are implemented to improve supplier performance.

Our improvement efforts, particularly for low-performing suppliers in Group C and Group D, contribute to building a sustainable supply chain and aim to reduce environmental impacts.

## Auditing and Performance Monitoring

Supplier audits are conducted based on key performance criteria such as quality, delivery performance, and pricing. At the end of each year, performance evaluations are carried out to classify suppliers and establish long-term working groups. Audit and performance evaluation processes enhance supply chain reliability, allowing our company to collaborate with business partners that support sustainability.

## Sustainable Supplier Relations

At Er-Bakır, we prioritize establishing healthy and long-term relationships with our suppliers. Group A suppliers, whose reliability has been certified, are included in long-term business collaborations, where sustainable business models are developed with them.

Collaborations with the Controlled Working Group (Group B) and Development Group (Group C) aim to enhance supplier performance, with the long-term goal of establishing sustainable business relationships.

## Supplier Evaluation Criteria



Quality



Cost and Price Competitiveness



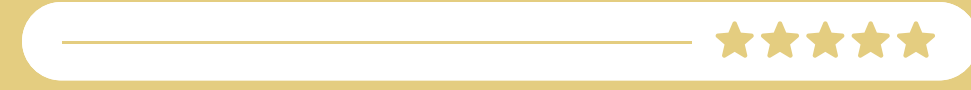
Reliability and Delivery Performance



Financial Stability



Capacity and Capability

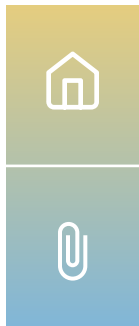


Customer Service and Support



Reputation and Past Performance





# ER-BAKIR'S ROLE IN SUSTAINABLE DEVELOPMENT



## The Essential Connection for a Sustainable Future

Copper is a fundamental element that ensures the continuity of life in humanity's modernization journey. From renewable energy systems to smart city infrastructures, from electric vehicles to communication technologies, copper is not just a conductor but an element that shapes the infrastructure of the modern world, lays the foundation for sustainable development, and serves as an architect of a sustainable future.

At Er-Bakir, we embrace the role of copper in sustainable development and operate with an approach centered on operational sustainability and environmental responsibility. Additionally, factors such as technological advancements, market trends, climate change, and customer expectations play a significant role in managing our economic performance.



The connections we establish with industries leading the transformation of the modern world are not only about generating economic value but also about uniting social development, environmental responsibility, and global innovation under a shared vision.





# Er- Bakır's Position in Sustainable Development

With the increasing demand for electric vehicles and renewable energy systems, we believe that copper's growth potential will gain significant momentum in the future. Acknowledging that recycling copper requires significantly less energy than extracting new ore and reduces the carbon footprint, we aim to contribute to the fight against climate change. With this perspective, we are committed to maintaining our sustainable economic performance in the long term.

In line with our short and long-term objectives, we prepare our annual budget and five-year strategic plan based on fundamental factors such as customer satisfaction, cost management, market share retention, and stakeholder engagement. Our long-term goals include enhancing brand recognition, playing an active role in combating climate change while expanding into new markets, promoting technological innovation, and ensuring financial sustainability.

As an R&D Center approved by the Republic of Türkiye's Ministry of Industry and Technology, we continue to engage in value-added production with a mission of sustainability and continuous improvement. By integrating Industry 4.0 and artificial intelligence technologies, we implement the best practices, take determined steps toward building a sustainable future, and develop innovative solutions and technologies.

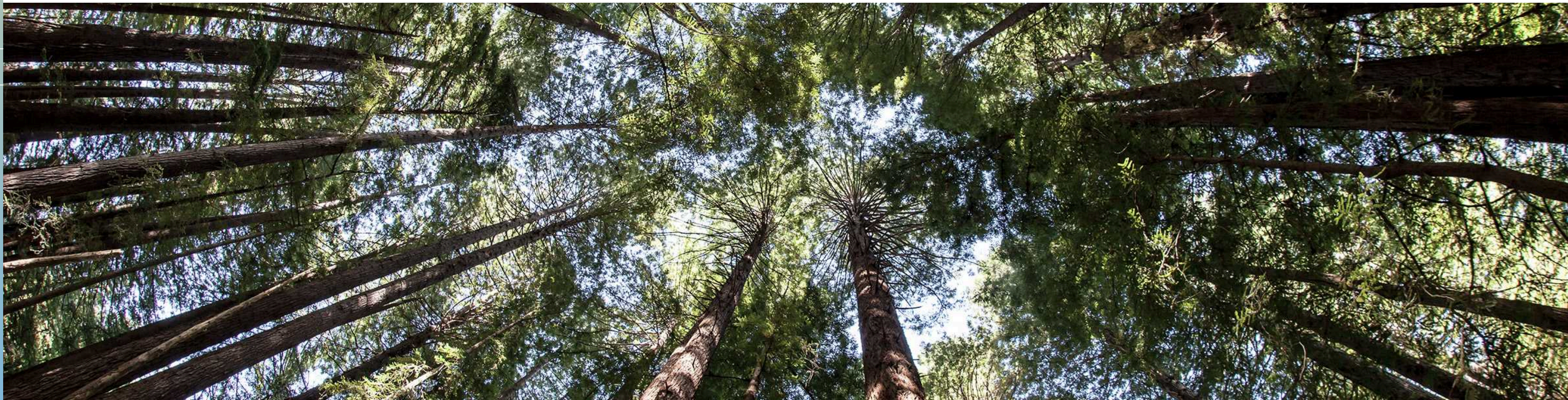
In alignment with our sustainability goals, we invest in energy efficiency and environmental impact reduction initiatives. By utilizing solar energy systems, we reduce fossil fuel consumption, lower greenhouse gas emissions, and minimize energy costs. With the rectifier investment we plan to launch in 2025, we aim to increase the recycling rate of scrap copper, consume less energy, and contribute to sustainability with reduced environmental impact. We believe that this investment will also expand the capacity of our electrolysis plant, making a positive contribution to our economic activities.

To enhance our energy efficiency, we have developed a waste heat recovery project at our factory. Through this initiative, we recover heat generated during machine and equipment operations, optimize energy consumption, and thus reduce both costs and environmental impact.

Since 2007, we have been implementing the SAP ERP system with all its modules. This integrated system enables us to centralize all processes, from production to sales, cost to revenue, and provides real-time data access. As part of our digitalization efforts, we have completed the implementation of E-invoice, E-ledger, E-reconciliation, E-archive, and E-dispatch processes, making our business processes more efficient and reducing error rates. Additionally, we have automated many financial processes through Robotic Process Automation (RPA).

In the field of social responsibility, we have been providing financial and moral support to Er-Bakır Science High School in Denizli since its establishment. Furthermore, we contribute to the education and social development of society by offering scholarships and essential needs support to the school-aged children of our employees.

In a transforming world, we stand as one of the strongest advocates of sustainable development with our innovative products that shape technology. Our work is not only a testament to global leadership in competition but also a reflection of a philosophy that adds value to both society and the planet. Er-Bakır does not just carry the energy of the modern world; it redefines it.



## Sustainability Goals

### Er- Bakır's 2030 Sustainability Vision

In line with its 2030 sustainability vision, Er-Bakır strengthens its goal of being a global market leader with environmental, social, and governance values. On this journey from Denizli to the world, we are laying the foundations for a more sustainable future together with all our stakeholders. While leading the sector with our innovative approach, we work with determination for a better world, considering both our environment and society.



## Circular and Carbon Neutral Production

**Carbon Neutrality Goal:** In this context, we will increase the use of renewable energy sources and meet our energy needs from renewable sources.

**Circular Economy Approach:** By achieving our zero waste goal in waste management, we will maximize recycling in copper production processes. We will optimize resource use by reintegrating by-products from production back into the economy.

**Water Management:** By using innovative technologies to reduce water consumption, we aim to consume less water per production unit.



## Innovation and Leadership

**Global Market Leadership:** In parallel with our goal of becoming a global market leader in the copper conductor industry, we will increase our R&D investments and lead the sector with innovative products.

**Digital Transformation:** By integrating digital technologies and data analytics into our production processes, we will enhance operational efficiency.

**Supply Chain Sustainability:** We will maintain environmental and social responsibility standards in our supply chain, ensuring transparency and adherence to ethical business principles.



## People-Centered and Strong Communities

**Employee Development:** We will organize training programs to enhance our employees' knowledge and competencies in sustainability, fostering an innovation-driven workforce.

**Social Contribution:** We will contribute to social development by increasing education, environmental, and technology-focused social responsibility projects, particularly in Denizli and the regions where we operate.

**Gender Equality:** We will implement policies promoting gender equality in the workplace and aim to increase the employment rate of women.

# Governance Structure

At Er-Bakir, our sustainability governance structure is designed to ensure the implementation of sustainability principles at all levels of the company. From the board of directors to operational teams, every employee who is part of Er-Bakir is encouraged to contribute to our sustainability goals. This structure plays an active role in the determination, implementation, and monitoring of sustainability strategies.

The Sustainability Committee holds the highest level of responsibility in the development and execution of our sustainability strategy. In the meetings conducted by the committee, our sustainability performance is evaluated, and the best practices and innovative solutions are integrated into our business processes with the support of expert consultants in sustainability.

At the operational level, our sustainability governance structure is supported through sustainability coordination teams and project teams. This layered structure ensures the implementation of our sustainability goals and the execution of various sustainability projects. Each department assumes specific responsibilities within its field of expertise to achieve its sustainability objectives.

Stakeholder engagement is a critical component of our sustainability governance structure. We maintain regular communication with our stakeholders, taking their expectations and feedback into account. This approach enhances the effectiveness and success of our sustainability strategies and projects.

# Stakeholder Engagement

We believe in the importance of establishing strong and meaningful relationships with our stakeholders to achieve our sustainability goals. We maintain continuous communication, considering their expectations and feedback. Stakeholder engagement is actively integrated into the implementation of our sustainability strategy and all business processes.

Our communication processes with stakeholders are based on transparency and open communication principles. We gather insights through regular meetings, customer visits, surveys, and feedback mechanisms. By developing solutions aligned with stakeholder expectations, we aim to enhance stakeholder satisfaction.

In our stakeholder engagement processes, we place great emphasis on diversity and inclusiveness. We consider the needs and expectations of different stakeholder groups while shaping our sustainability projects. By collaborating with employees, customers, suppliers, local communities, and non-governmental organizations, we aim to create synergies in sustainability efforts.

At Er-Bakir, we continuously monitor and evaluate the effectiveness of our stakeholder engagement processes. The feedback we receive from our stakeholders allows us to further develop and enhance our sustainability strategies and projects.





# Materiality Analysis

Materiality analysis plays a crucial role in ensuring that our sustainability strategies align with our company's long-term success goals and strategic direction.

To enhance the effectiveness of our sustainability strategies, materiality analysis is of critical importance. When identifying our material sustainability topics and related objectives, we take a holistic approach, considering stakeholder expectations, industry dynamics, global trends, and our company's strategic priorities. The evaluation we conduct not only shapes our sustainability vision but also forms the foundation of our long-term strategies, which we integrate into our business processes. Through this approach, we aim to enhance our company's value creation capacity in the environmental, social and governance domains.

Our materiality analysis has been conducted based on interactions with and feedback from various stakeholder groups. To understand the expectations and priorities of our stakeholders—including our employees, customers, suppliers, and local communities—we regularly conduct surveys and meetings.

During the analysis process, our company's strategic goals and operational priorities were also considered, ensuring that our sustainability objectives are fully aligned with the company's overall strategy.

## Material Topics and Materiality Matrix

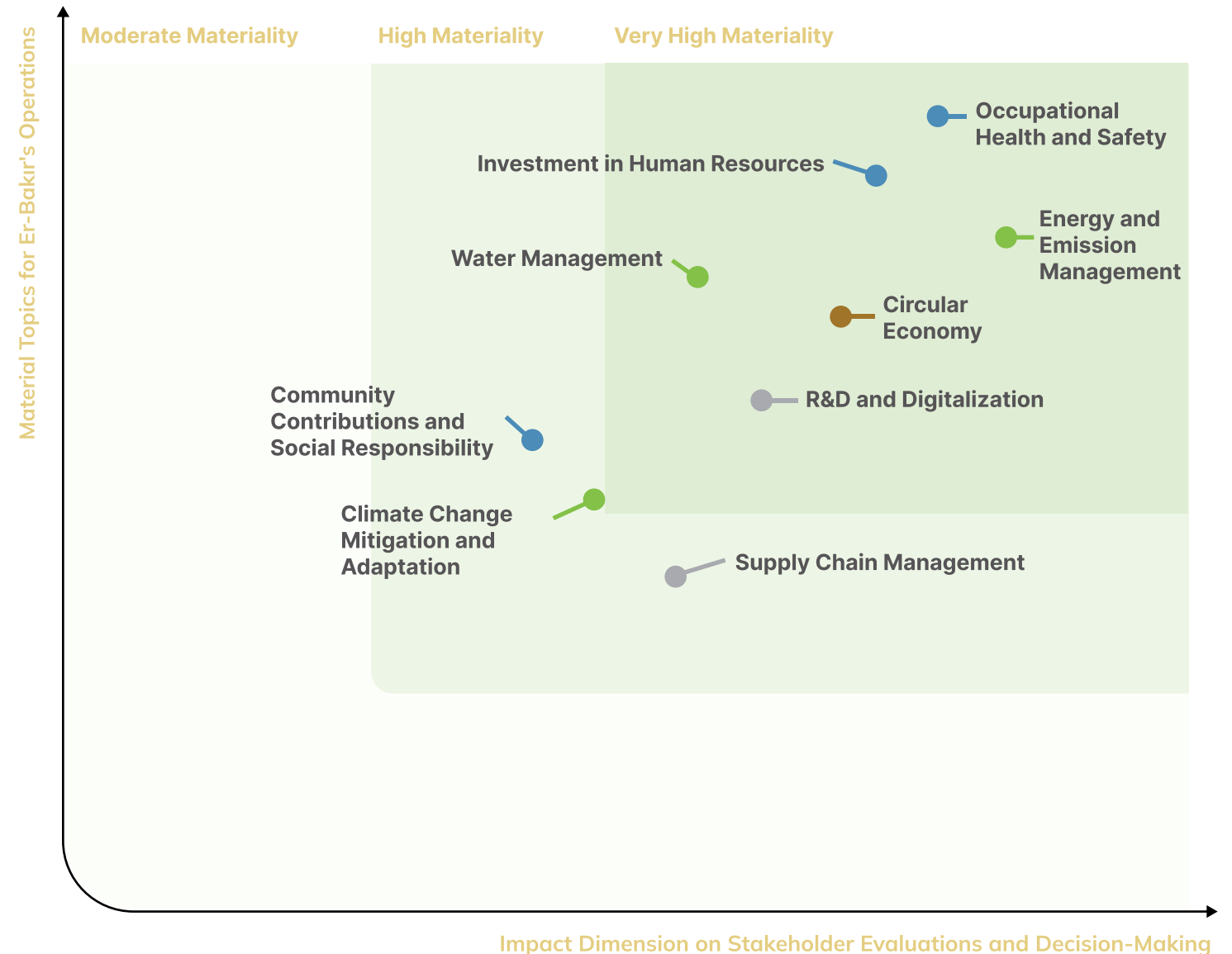
To improve our sustainability performance, we carefully determine our material topics by closely monitoring sectoral, national, and global trends. Based on our 2023 assessments, we identified our material topics by evaluating their impact on our operations and stakeholders, taking into account stakeholder insights and expectations.

In this context, we shared a survey with our stakeholders, presenting nine key material topics, and asked them to evaluate their impacts on Er-Bakir from environmental, social, and governance perspectives. The feedback and responses received were analyzed in detail, and the degree of impact for each topic was determined.

The materiality levels identified were carefully reviewed by the Sustainability Committee and then submitted for final approval to the Sustainability Executive Board.

**Economic** **Social** **Environmental** **Governance**

- 1 Occupational Health and Safety
- 2 Investment in Human Resources
- 3 Energy and Emission Management
- 4 Circular Economy
- 5 Water Management
- 6 R&D and Digitalization
- 7 Community Contributions and Social Responsibility
- 8 Climate Change Mitigation and Adaptation
- 9 Supply Chain Management





# Our Contribution to Sustainable Development Goals

## Er-Bakir's Contribution to Sustainable Development Goals

At Er-Bakır, we ensure a strong alignment with the United Nations Sustainable Development Goals (SDGs) when determining our material sustainability topics. Our key focus areas—including Climate Change Mitigation and Adaptation, Energy and Emission Management, Water Management, R&D and Digitalization, Supply Chain Management, Circular Economy, Occupational Health and Safety, Investment in Human Resources, and Community Contributions and Social Responsibility—are directly linked to the core objectives of the SDGs. In this context, we guide our operations to support sustainable development and aim to contribute to global goals.



SDGs to Which We Directly Contribute / Relevant SDGs

### How Do We Manage It?

### Climate Change Mitigation and Adaptation

Proactive measures are being taken to minimize the impacts of climate change and ensure adaptation through carbon emission reduction and the transition to low-carbon production processes. In this regard, various projects are being implemented, including increasing the use of renewable energy, developing emission reduction initiatives, and measuring the carbon footprint.



### Energy Management

Through energy efficiency and renewable energy investments, we ensure that our energy resources are managed in a more sustainable manner. We increase the use of clean energy in our production processes, optimize energy consumption, and explore areas for efficiency improvements.



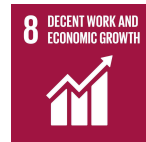
### Water Management

We implement water recovery projects and actively monitor our water consumption to ensure the preservation and sustainable use of water resources.



### R&D and Digitalization

Through our R&D investments and digitalization-focused projects, we are transitioning into Industry 4.0 processes, developing innovative solutions that enhance sustainable production. Digitalized production processes and technological infrastructure improvements support the strengthening of sustainable manufacturing.



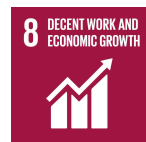
### Supply Chain Management

We prioritize environmental and social responsibility standards within our supply chain, embracing the principles of responsible production and consumption. While strengthening our collaboration with suppliers, we implement responsible sourcing practices based on transparency and ethical principles.



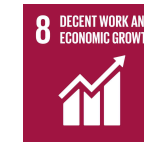
### Circular Economy

By adopting a zero-waste approach in waste management and increasing recycling within our processes, we actively support the circular economy.



### Occupational Health and Safety

Ensuring that our employees work in a safe and healthy environment is one of our top priorities. Through our occupational health and safety policies, we implement projects aimed at securing decent work standards.



### Investment in Human Resources

We invest in our human capital by providing training programs to enhance employee competencies and implementing inclusive employment policies.



### Community Contributions and Social Responsibility

We support social development in the regions where we operate, primarily in Denizli, through social responsibility projects spanning education, environment, and technology.



# Er-Bakır's Strategy for Climate Change Adaptation and Enhancing Competitiveness

The Task Force on Climate-related Financial Disclosures (TCFD) provides a framework that enables companies to identify their climate-related risks and opportunities and integrate them into their financial planning processes. These assessments strengthen strategic decision-making while serving as a critical tool for addressing the impacts of climate change in the global economy. TCFD also supports companies in identifying physical risks (acute and chronic), transition risks, and opportunities, making their strategic decisions more resilient.

As the impacts of climate change on the global economy intensify, TCFD has become not only a risk management tool but also a key mechanism for creating new business opportunities and gaining a competitive advantage.

## Global Sustainability Trends and the Risk and Opportunity Management Approach

Global sustainability trends are guiding companies toward managing climate change impacts and increasing their adaptation capacity. In line with the Paris Agreement goals, the transition to a low-carbon economy and the reduction of carbon emissions play a significant role in financial planning and sustainability strategies.

In this context, risk and opportunity based approaches are gaining importance not only in voluntary sustainability reporting but also in mandatory financial disclosures. Transparent reporting on the financial impacts of climate change enhances investor confidence and strengthens a company's market position..

## Er-Bakır's TCFD-Aligned Efforts: 2023 Strategic Actions

During the reporting period, a climate change assessment was conducted in alignment with the TCFD framework. This study contributed to strengthening Er-Bakır's risk and opportunity-based business model, helping us develop a comprehensive approach to climate and transition risks across multiple areas.



### Enhancing Risk Management and Compliance Capacity

- **Compliance with regulatory changes:** At Er-Bakır, we measure carbon emissions and invest in renewable energy to mitigate the financial impacts of carbon taxes and other regulatory requirements..
- **Resilience to extreme weather events:** Our production facilities have been reinforced against risks such as floods, droughts, and extreme temperatures. Infrastructure modifications, cooling systems, and water management strategies have been implemented.



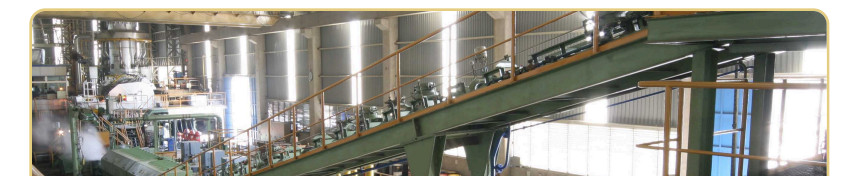
### Market Flexibility and Competitiveness

- **Low-carbon products:** To meet customer demand, we have expanded our recycling capacity and prioritized raw materials with a low carbon footprint.
- **Seizing opportunities:** By adopting innovative technologies and using energy-efficient equipment, we aim to lead the market in the transition to a low-carbon economy.



### Mitigating the Impacts of Climate Change

- **Emission management:** We calculate and report our carbon footprint in accordance with ISO 14064 and the GHG Protocol. Our energy consumption is directed towards low-carbon sources through the use of green electricity certificates.
- **Water resources conservation:** We have implemented water footprint assessments, water consumption monitoring, and recovery projects to mitigate the risks associated with water scarcity.



### Supply Chain Resilience

- **Diversified supply chain:** We have mitigated supply risks through geographical and logistical diversification. Compliance with supplier sustainability standards has been ensured, and local inventory strategies have been developed to maintain supply chain continuity.



Transition



Physical

## Risk Definition

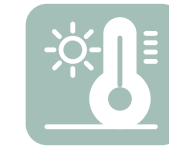
## Risk Area

## TCFD Category

- Er-Bakır may face operational cost increases due to new carbon reduction regulations, carbon pricing mechanisms, and carbon tax implementations. These changes could negatively impact the company's competitiveness and put pressure on its financial sustainability. Additionally, such regulatory changes may impose greater pressure across the supply chain to adopt lower-carbon operations and products.



Regulatory Changes



Policy and Legal

## Management Approach

Er-Bakır has implemented various proactive measures to manage and adapt to risks arising from carbon pricing regulations and other environmental policies.

### 1. Regulatory Monitoring and Industry Participation:

- Regular participation in Chamber of Industry meetings and sectoral union training and information programs is ensured to closely monitor legal regulations and industry developments.
- Collaboration with relevant stakeholders is established to understand and manage the impacts of regulatory changes on the company's operations.

### 2. Energy Diversification and Renewable Energy Utilization:

- A solar power plant investment has been made to reduce carbon emissions and manage energy costs.
- Operational flexibility has been increased through the diversification of energy sources.

### 3. Emissions Calculation and Monitoring:

- Er-Bakır applies internationally recognized methodologies, such as ISO 14064 and the GHG Protocol, to track and report its carbon footprint.
- These processes enable the company to set emission reduction targets and monitor its progress..

### 4. Supply Chain Management:

- Negotiations with key suppliers are conducted on carbon footprint reduction, and collaborative action plans are developed.
- Long-term goals have been established to implement carbon reduction strategies throughout the supply chain.



Transition



Physical

## Risk Definition

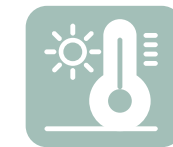
## Risk Area

## TCFD Category

- The transition to a low-carbon economy may lead to significant changes in customer demand. The increasing preference for energy-efficient and low-carbon footprint products could impact Er-Bakır's strategic planning. This shift may cause fluctuations in demand for the company's existing product portfolio and require the development of new business models aligned with customers' expectations for recycled-content products.



Market Changes



Market

## Management Approach

Er-Bakır has implemented strategic measures to effectively manage potential risks arising from market changes and to adapt to evolving customer demands.

### 1. Low-Carbon Raw Materials and Production Approach:

- Opportunities for using low-emission cathodes and similar raw materials in production are being evaluated to align with the low-carbon economy.
- In line with carbon reduction initiatives, new technologies are being monitored, and feasibility studies are conducted to enhance energy efficiency and reduce emissions in production processes.

### 2. Recycling Infrastructure and Capacity:

- Existing recycling facilities are utilized to meet customer demand for recycled-content products.
- The use of recycled copper is promoted to support environmental sustainability goals while meeting customer expectations.

### 3. Customer and Market Analysis:

- Regular market analyses are conducted to anticipate shifts in customer expectations and shape strategic decisions accordingly.
- Considering the increasing demand for low-carbon and energy-efficient products, the company's product portfolio is continuously reviewed and diversified.

### 4. Innovation and Product Development:

- Innovative product design and R&D efforts focus on the development of low-carbon products.



Transition



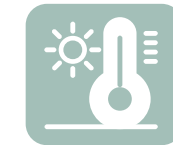
Physical

## Risk Definition

## Risk Area

## TCFD Category

- During the transition to a low-carbon economy, the need to invest in new technologies to make production processes more environmentally friendly and energy-efficient may arise. Transitioning to such technologies could introduce operational risks due to high initial costs and challenges in the adaptation process. Additionally, technical or logistical issues that may occur during the integration of new technologies into existing equipment and systems could lead to disruptions in production processes.

Technology  
Integration

Technology

## Management Approach

Er-Bakır has implemented strategic measures to manage operational risks and leverage opportunities in the transition to low-carbon technologies.

### 1. Technology Monitoring and Feasibility Assessment:

- The company closely monitors advancements and innovations in low-carbon production technologies.
- Comprehensive feasibility assessments are conducted to evaluate the integration of new technologies into existing systems.

### 2. Utilization of Incentive and Support Mechanisms:

- In the investment process for new technologies, public incentives and other financial support mechanisms are utilized.
- These support mechanisms help minimize costs and accelerate the technology adaptation process.

### 3. Selection of Energy-Efficient Equipment:

- Equipment used in production processes is carefully selected based on energy efficiency and carbon emission reduction criteria.
- In procurement processes, priority is given to criteria aimed at reducing the carbon footprint.

### 4. Proactive Adaptation and Training:

- Training programs and technical support are provided to employees to minimize adaptation challenges during the integration of new technologies.
- Pilot trials and test applications are conducted to prevent production disruptions during the technological transition process.



Transition



Physical

## Risk Definition

## Risk Area

## TCFD Category

A perceived low sustainability performance could lead to a loss of reputation for Er-Bakır among investors, customers, and other stakeholders. Particularly in the transition to a low-carbon economy, companies that fail to comply with environmental and social responsibility standards may face weakened competitive strength. If Er-Bakır does not effectively implement its sustainability strategies, it risks losing stakeholder trust.



Reputation Loss



Reputation

## Management Approach

Er-Bakır has implemented communication strategies to ensure effective execution of its sustainability strategies and to build trust-based relationships with stakeholders.

### 1. Data Transparency and Consistency:

- Transparency and consistency are ensured in the sharing of sustainability performance data.
- Environmental and social performance data are regularly reported to provide accurate and up-to-date information to all stakeholders.

### 2. Full Compliance with Regulations:

- The company ensures full compliance with all legal regulations and closely monitors permit processes.
- Regulatory compliance enhances the company's credibility among stakeholders.

### 3. Communication with Customers, Investors, and Suppliers:

- Regular communication and collaboration meetings are held with customers, investors, and suppliers.
- These meetings serve as a platform to share sustainability goals, performance updates, and improvement processes, while also evaluating stakeholder expectations.

### 4. Proactive Reputation Management:

- Innovative projects and investments are implemented to enhance sustainability performance and reduce environmental impact.
- The company aims to foster a positive perception by publicly sharing its achievements in sustainability.



Transition



Physical

## Risk Definition

- Er-Bakır may face legal proceedings, compensation claims, and lawsuits related to environmental non-compliance due to its contribution to climate change. Such legal risks could negatively impact the company's financial stability and lead to reputational damage. Additionally, in an environment where national and international regulations are rapidly evolving, gaps in compliance processes may pose operational risks for the company.

## Risk Area



Legal Impacts

## TCFD Category



Reputation

## Management Approach

A robust legal compliance and regulatory monitoring system has been established to effectively manage legal risks and prevent potential sanctions.

### 1. Full Regulatory Compliance and Proactive Approach:

- The company ensures full compliance with all applicable legal regulations. Environmental compliance processes are closely monitored, and all necessary permits are obtained without exception.
- Beyond compliance, proactive initiatives are undertaken to position Er-Bakır as a leader in environmental sustainability rather than just meeting regulatory requirements.
- Transparent communication is maintained with stakeholders, with regular reports provided on environmental performance and compliance processes.

### 2. Legal Monitoring and Expert Teams:

- Specialized teams have been established to monitor and assess changes in legal regulations in real time.
- These teams ensure that preventive measures are implemented promptly, facilitating smoother compliance processes.

### 3. Past Performance and Audits:

- In previous years, no issues were encountered in Environmental Impact Assessment (EIA) processes, demonstrating the company's commitment to legal compliance.
- Regular audits and internal controls ensure the long-term sustainability of regulatory compliance.



Transition



Physical

## Risk Definition

- Er-Bakir's production facilities may be exposed to extreme weather events (floods, storms, extreme temperatures, droughts), which are becoming more frequent and severe due to climate change. Such events could lead to production disruptions, infrastructure damage, and increased costs, negatively impacting operational sustainability. Additionally, a decline in water resources or damage to infrastructure systems could affect production efficiency and pose long-term risks to business planning.

## Risk Area

Extreme  
Weather  
Events

## TCFD Category



Acute

## Management Approach

Er-Bakir has implemented preventive measures throughout its operations to mitigate the negative effects of extreme weather events and minimize associated risks.

### 1. Infrastructure Strengthening and Improvement Initiatives:

- Wastewater systems have been reviewed, and adjustments have been made to minimize risks.
- Existing building infrastructure has been upgraded to reduce rainwater load on rooftops and enhance resilience to heavy rainfall.
- System modifications have been implemented in cooling towers to reduce water loss.

### 2. Energy Efficiency and Technological Investments:

- Fiber fan systems have been tested in cooling towers to enhance energy efficiency.
- Specialized cooling and air conditioning systems have been installed for equipment protection against extreme heat and to optimize energy consumption.
- New technologies are continuously monitored to modernize infrastructure and equipment.

### 3. Risk Analysis and Preventive Measures:

- Environmental risk assessments, including seismic studies, are conducted regularly to enhance facility resilience.
- Regular evaluations are performed to minimize precipitation-related risks, and preventive measures are continuously updated.

### 4. Water Management and Drought Mitigation:

- Innovative system modifications have been implemented to reduce water consumption in cooling systems.
- Water loss prevention systems have been developed to ensure sustainable water use.

### 5. Long-Term Planning and Proactive Approach:

- Long-term planning is conducted to anticipate the effects of climate change and extreme weather events, continuously enhancing facility resilience.
- Infrastructure upgrades and integration of new technologies have been prioritized in risk management strategies.



Transition



Physical

### Risk Definition

● Dependence on water in production processes may pose operational risks in cases of water scarcity or depletion of water resources. Water shortages could lead to increased water access costs, resulting in higher production costs and a decline in production capacity. Additionally, increasing regulatory pressures regarding water consumption and management may negatively impact operational sustainability.

### Risk Area



Water Access Restrictions

### TCFD Category



Chronic

### Management Approach

Er-Bakır implements the following measures to proactively manage the risk of water scarcity and enhance operational resilience:

**1. Water Usage Measurement and Monitoring:**

- A comprehensive water measurement system has been established to track water consumption in production processes.
- The amount of water used in each process is monitored regularly, and efficiency improvement opportunities are assessed.

**2. Water Footprint Assessments:**

- Water footprint assessments have been conducted for cathode and rod products based on customer demand.
- These studies help better understand and optimize the water consumption and impacts of products throughout their lifecycle.

**3. Water Management and Conservation Strategies:**

- Feasibility studies have been conducted to explore water collection systems and assess their applicability.
- Wastewater recovery projects and the use of alternative water sources are planned to mitigate future water risks.
- Employees participate in regular training programs on water management and water footprint assessment to increase awareness and expertise.



Transition



Physical

### Risk Definition

● Extreme weather events, natural disasters and environmental pressures caused by climate change may disrupt Er-Bakır's raw material supply chain. This could lead to delays and cost increases in the procurement of raw materials, particularly those used in copper production. Such supply chain disruptions may reduce production capacity and negatively impact operational sustainability.

### Risk Area



Supply Chain Disruptions

### TCFD Category



Acute

### Management Approach

To reduce risks arising from supply chain disruptions and maintain operational stability, Er-Bakır has implemented several strategies:

#### 1. Source Diversification:

- A geographic diversification strategy has been adopted to minimize supply chain risks.
- The company sources raw materials from multiple continents and through various supply routes (excluding air transport).
- This practice enhances the resilience of the supply chain against regional risks.

#### 2. Local Storage and Strategic Stocking:

- Agreements with suppliers require maintaining a certain amount of inventory in storage facilities in Türkiye.
- This measure acts as a buffer against sudden disruptions, ensuring production continuity.

#### 3. Supplier Relations and Collaboration:

- Regular meetings with suppliers are conducted to assess potential supply chain risks and develop mutual solutions.
- Joint collaboration projects are implemented to monitor supplier performance and enhance sustainability criteria.

#### 4. Logistics and Transportation Optimization:

- Various transportation methods are used to reduce logistical risks in raw material transport.
- Alternative transportation routes are evaluated to increase supply chain flexibility.

#### 5. Proactive Risk Analysis:

- Potential risks throughout the supply chain are regularly analyzed, and preventive measures are taken to mitigate supply chain disruptions.
- Strategic preparations are made for current and future supply chain risks.



# ENVIRONMENTAL PERFORMANCE



# ENVIRONMENTAL PERFORMANCE

At Er-Bakir, we consider environmental sustainability as an integral part of our business processes. Through our innovative energy projects, efficient water management strategies, and circular economy practices, we continue to create both environmental and economic value.

At Er-Bakir, we embrace an environmentally conscious production approach that not only focuses on today but also considers the future, adding value to both society and the environment. By utilizing cutting-edge technologies and innovative solutions in our production processes, we minimize our environmental impact and take care to preserve our natural resources. In our environmental sustainability journey, we ensure full compliance with all current regulations in every aspect of our operations.

Through our projects in energy management, emissions control, water consumption, and waste management, we use resources efficiently while taking significant steps to reduce our carbon footprint. In this regard, our solar power plant investments strengthen our sustainability goals by enabling us to meet our energy needs from renewable sources.

We prioritize the sustainable use and conservation of water resources by utilizing a comprehensive monitoring system. By regularly tracking the impact of our operations on water, we leverage new technologies to reduce water consumption.

To enhance energy efficiency, we implement a comprehensive energy management strategy in compliance with the ISO 50001 Energy Management System. We continuously improve our energy performance through projects and process optimizations aimed at reducing energy consumption.

By integrating the circular economy model into our production processes, we consider waste as a resource and focus on reuse in manufacturing. We separate all waste at the source, reintegrate recyclable materials into the economy, and dispose of hazardous waste in compliance with environmental regulations.

At Er-Bakir, we place environmental protection and the sustainable use of natural resources at the core of all our business processes. In line with our environmental responsibilities, we not only implement environmentally friendly practices in our daily operations but also invest in long-term projects to leave a more livable world for future generations.



In the past three years, our environmental expenditures have exceeded 2.75 million TL, while we have made a total of 122 million TL in environmental investments.



# Water Management

The concerns regarding the continuous availability of water, access security, and potential water pollution have increased in recent years due to extreme climate events. We are aware of the critical importance of having access to high-quality, safe, and clean water for the continuation of life. We aim to identify and minimize our operational water footprint while managing our activities in a way that protects our shared water resources and the ecosystems we are part of.

In this regard, as a first in both Denizli and our industry, we established a chemical wastewater treatment plant in 1992, solely for social purposes and to support environmentally friendly production processes. This facility, which we commissioned at the time with an awareness of environmental responsibility rather than due to any legal obligation or enforcement, has been operating uninterruptedly since its establishment.

At our chemical treatment plant, all legally required permits have been obtained, and regular compliance monitoring is conducted. The wastewater generated from our production processes is treated in full compliance with legal standards, thereby minimizing environmental impact.

The amount of treated water and the volume of sludge generated at our wastewater treatment plant vary depending on the production volume and electrolyte composition. These data are regularly monitored and analyzed on an annual basis.



## Water Management

### Unit

2021

2022

2023

Total Withdrawn Water Volume  
(Municipal Water)

m<sup>3</sup>

360

380

360

Total Withdrawn Water Volume  
(Groundwater)

m<sup>3</sup>

210,384

255,624

241,140

Wastewater Discharge to  
Sewer System

m<sup>3</sup>

90,500

94,146

93,912

Water Consumption

m<sup>3</sup>

120,144

123,828

115,728

# Waste Management

At Er-Bakır, we implement innovative waste management practices aligned with our environmental sustainability goals. All our waste is processed through reuse, recycling, composting, and energy recovery methods, contributing to the circular economy. We apply a comprehensive waste management system, ensuring that every recyclable material is utilized while aiming for the sustainable use of resources and the reduction of environmental impact.

The waste generated from our production processes is segregated by type, and recycling opportunities are assessed to contribute to the circular economy. Hazardous waste is sent to licensed disposal facilities in full compliance with legal regulations, ensuring that environmental impacts are minimized. The sludge produced at our chemical wastewater treatment plant varies depending on production processes. This sludge is regularly measured and disposed of in accordance with legal regulations.

## Zero Waste Practices

Our company holds the Basic Level Zero Waste Certificate and continuously improves our waste management strategies in line with this certification.

- **Separation at Source and Recovery:** Appropriate waste containers for different types of waste have been placed throughout the entire site, ensuring waste separation at the source and its recovery.
- **Waste Reduction Targets:** Each year, our company sets concrete targets for waste reduction and implements various projects and initiatives to achieve these goals. In particular, reducing the use of single-use products constitutes a significant part of our waste reduction strategy.



### Total Waste by Type

Unit

2021

2022

2023

Hazardous Waste

kg

783,400

963,119

741,655

Non-Hazardous Waste

kg

984,586

297,210

339,745

### By Disposal Method

Unit

2021

2022

2023

Recycling/Recovery

kg

1,767,969

1,260,276

1,081,343

Other Disposal Method

kg

17

53

57

# Energy and Emissions Management

Energy management and emission reduction play a crucial role in achieving our sustainability goals. Various projects have been implemented to enhance energy efficiency, reduce energy costs, and protect the environment. In this regard, measures have been taken to improve energy consumption habits and prevent unnecessary and unconscious energy use, while training programs have been organized to raise awareness among employees.

At Er-Bakir, we prioritize the transition to renewable energy sources in our energy management processes, aligning with our sustainability goals. In this context, we take significant steps to reduce fossil fuel consumption and increase the use of renewable energy sources. Notably, in gasoline consumption, a remarkable reduction of 73.4% was achieved in 2023 compared to 2022.

As a result of our investments in renewable energy sources, 2,166 MWh of solar energy (GES) production was achieved in 2023. This production not only contributed to reducing our carbon emissions but also allowed us to optimize our energy costs and supported our environmental sustainability goals.

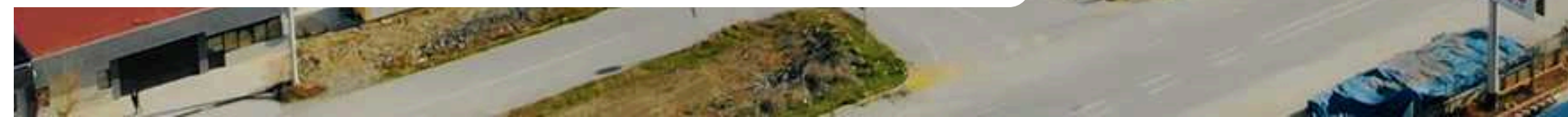
To take a strategic approach to energy management and continuously improve our energy performance, we established the ISO 50001:2018 Energy Management System in 2023.

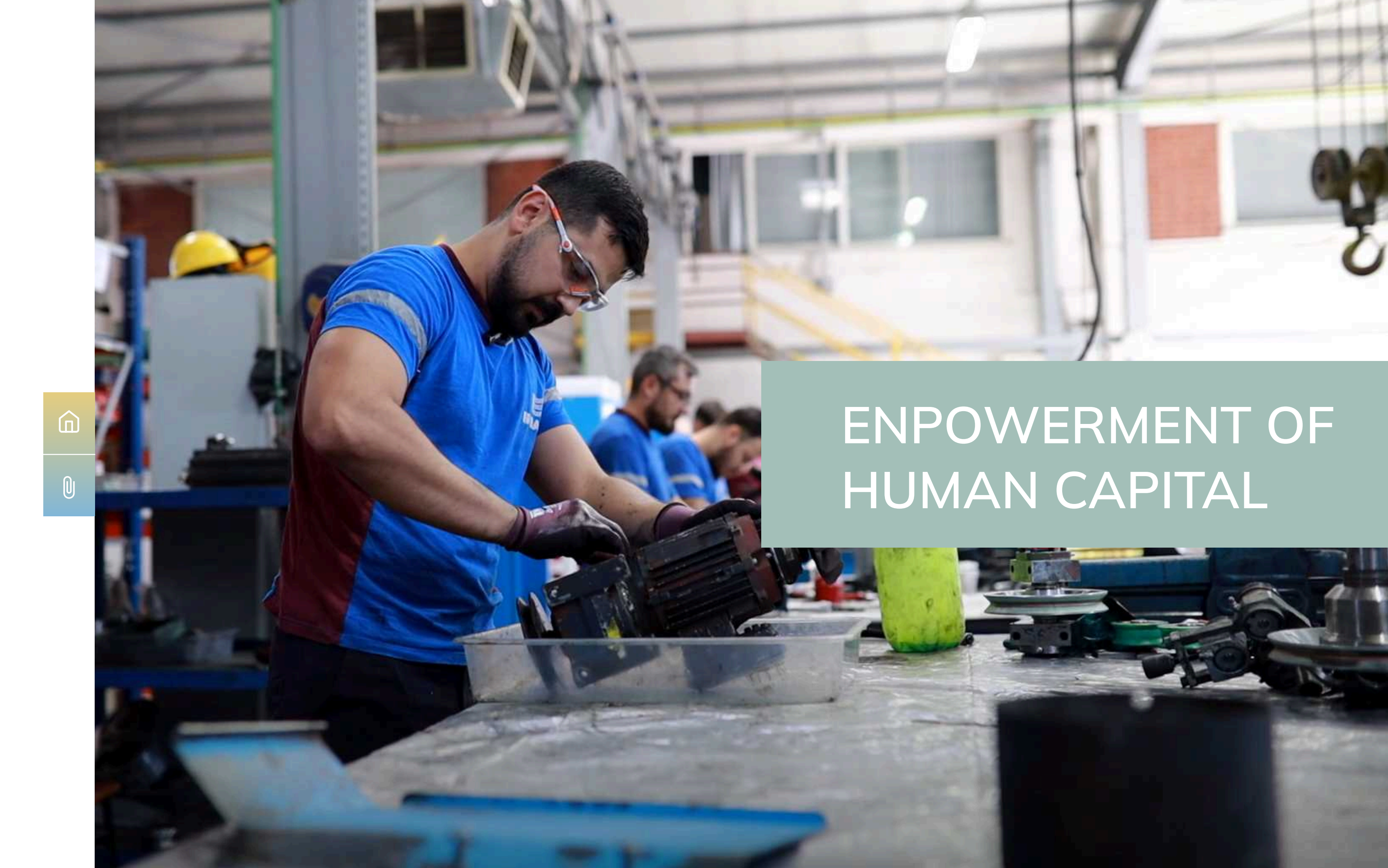
To ensure the regular monitoring of emissions and implement the necessary improvements, we conduct calculations in compliance with ISO 14064-1:2018 Corporate Carbon Footprint Standard and the GHG Protocol.



## GHG Emissions

	Unit	2021	2022	2023
Direct Emissions (Scope 1)	tCO <sub>2</sub> e	15,477	13,928	14,644
Indirect Emissions (Scope 2)	tCO <sub>2</sub> e	34,209	35,728	32,784
Indirect Emissions (Scope 3)	tCO <sub>2</sub> e	1,006,498	1,061,421	927,109





# ENPOWERMENT OF HUMAN CAPITAL



# Human Resources Management



## Our Employees: Our Most Valuable Asset

At Er-Bakir, we believe that human capital plays a key role in achieving our company vision and strategic goals. Accordingly, we design and implement human resources strategies to maximize the potential of each employee.



## Dynamic Organization and Strategic Alignment

We maintain our organizational structure in a dynamic and flexible manner, ensuring that we are prepared for any change that provides a competitive advantage in the market. By developing organizational competencies in line with our business strategies, we support the company in achieving its sustainable growth goals.



## Strong Employer Branding and Qualified Workforce

By building a strong employer brand, we aim to attract qualified professionals who will carry our company into the future and enhance their commitment to the organization. We consider diversity and differences as strengths, fostering a work environment that transforms these differences into opportunities.



## Communication and Collaboration

We establish an open, effective, and collaborative communication environment, ensuring the continuity of a culture based on trust and cooperation among our employees. We value our employees' opinions and suggestions, fostering growth and development together.



## Equality and Diversity

At Er-Bakir, we are committed to providing equal opportunities to all employees. From recruitment to career development, we base all our processes on the principles of equality and diversity. By creating an inclusive and supportive culture, we strive to establish a workplace where everyone can contribute freely.



## Teamwork and Corporate Commitment

In line with our company values and principles, we prioritize the formation of highly engaged, motivated, innovative, and value-driven teams. To make our employees' contributions visible and to reinforce a culture of recognition, we effectively implement recognition and reward mechanisms.





## Healthy And Safe Working Environment

Creating a healthy, safe, and harmonious work environment for our employees is one of our top priorities. Through occupational health and safety practices that comply with industry standards, we enhance employee well-being and job satisfaction.



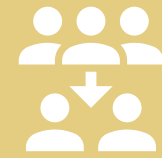
## Access To Training And Skills Development

Training and development are at the core of our Human Resources policies. We offer training programs with equal access to enhance employees' knowledge and skills. Through comprehensive training programs, ranging from technical skills to leadership development, we support our employees' growth both individually and professionally.



## Compensation And Benefits Management

We adopt a fair and competitive compensation policy to enhance employee satisfaction. At Er-Bakir, we consider both the individual and family needs of our employees, continuously improving our benefits to ensure a happier and more fulfilling work environment. We offer various financial and social support packages to contribute to our employees' personal, family, and professional lives. These include supplementary health insurance, marriage and childbirth allowances, educational and stationery support for children, holiday and special occasion allowances, annual paid leave benefits, birthday leave, and fuel assistance, all of which aim to meet both their economic and social needs.



## High Performance And Development-Oriented Approach

We provide the necessary resources to maximize the efficiency of our human capital and support both personal and professional development. We encourage individual development through training programs, conference participation, foreign language support, and access to academic development opportunities such as master's and doctoral studies. Through these opportunities, we help employees enhance their competencies and achieve their career goals.



## Recognition And Appreciation Culture

We foster a culture that enhances motivation and commitment by recognizing and appreciating employees' achievements.



## Performance Management

We implement a comprehensive performance management system that aligns the company's success with individual performances. By evaluating each employee's contributions, we ensure strong alignment between individual and corporate goals. Our performance evaluation processes focus on identifying development areas and supporting employees in their career journeys.



# Occupational Health and Safety



At Er-Bakir, ensuring a safe working environment for our employees is among our top priorities, supported by a strong management infrastructure and a high level of sensitivity towards occupational health and safety (OHS). Our OHS approach, reinforced by continuous improvement, employee participation, and innovative technologies, is an integral part of our legal compliance and sustainability goals.

At Er-Bakir, occupational health and safety management is conducted in full compliance with national and international standards and is supported by a continuous improvement approach. All operational risks are assessed through detailed analyses, and a hierarchy of controls is implemented to reduce risks. All risk analyses are monitored through software systems, allowing necessary improvements and corrective actions to be tracked efficiently.

To monitor existing risks and identify new ones, the QDMS Incident Module is utilized. All risk analyses are carried out under the coordination of Occupational Safety Experts, involving both expert teams and employee participation. Risk analyses are actively maintained and revised from the initiation of new processes and changes until their completion.

As Er-Bakir, we undergo regular audits conducted by internationally accredited organizations and continuously review our processes and actions. Following evaluations, necessary training programs are planned, investments in protective measures are made, and budgets are allocated by management for the renewal or replacement of personal protective equipment.

To ensure the effective operation of our OHS management system, we encourage employee participation, gathering employee opinions through OHS Committee meetings. Feedback is shared with employees via emails or bulletin board announcements. Additionally, all employees can submit their opinions, suggestions, and complaints through the suggestion system and the QDMS Incident Module.

Our company employs two full-time occupational safety professionals with Class A and B expert certifications. Their expertise includes NEBOSH IGC, Fire Instructor Certification, Occupational Safety Instructor Certification, Train-the-Trainer, Root Cause Analysis, First Aid, AKUT Honorary Membership, and Internal Auditor Certification for Management Systems (14001-45001-9001).

We also employ a full-time occupational physician. The health status of our employees is regularly monitored, and for those working in casting and chemical handling units, detailed monitoring processes are conducted at 3, 6 and 12 month intervals. To ensure preparedness for emergencies, all necessary emergency equipment is readily available across the facility. Additionally, we have established a first aid team of approximately 100 employees.

Policies applied equally to all employees are maintained with a fair and inclusive approach, particularly for women and disadvantaged employees. Employees requiring health monitoring are included in regular check-ups and follow-up programs conducted by the occupational health physician. Our infirmary has two separate isolation areas to ensure the confidentiality and privacy of employees' personal health information. Furthermore, specific risk analyses are conducted for disadvantaged and high-risk employees, with their results securely protected under restricted access.



## Training and Awareness Raising

As part of social collaborations with public institutions and non-governmental organizations, awareness programs on topics such as drug abuse prevention, child development, smoking and alcohol cessation, obesity management, stress management, and the prevention of domestic violence are regularly conducted. Additionally, awareness and relief activities related to recent disasters have been successfully completed with the support of our employees.

At Er-Bakır, we place great emphasis on OHS training. These internal training programs, conducted by company executives and expert teams, encourage employees to actively participate in occupational safety processes, helping them identify potential risks and significantly contribute to accident prevention.

In 2023, the number of training sessions increased by 22.6% compared to 2021. Thanks to the continuity and content of the training, the preventive measures implemented in the field have been effectively adopted by employees, resulting in a visible reduction in accident frequency rates.

## OHS Committee Meetings

Occupational Health and Safety Committee meetings are held every two months, led by the Technical Group Manager of the company. During these meetings, incidents, hazard reports, and preventive measures are thoroughly reviewed. In addition to pre-meeting feedback, opinions from participant representatives are also collected, forming the basis for decision-making. One of the main agenda topics of these meetings is "Employee Participation and Needs". All opinions and suggestions shared by participants are recorded, action items and responsibilities are assigned, and progress is tracked in the subsequent meeting. In employee representative elections, all employees can nominate themselves and be elected without any hierarchical restrictions.





OUR  
CONNECTIONS  
WITH SOCIETY



## Social Responsibility at Er-Bakır



We see social responsibility as an integral part of our business strategies and aim to continuously enhance our contribution to society, striving to leave a more livable world for future generations. At Er-Bakır, we are committed not only to our business but also to the sustainability of the community in which we live.

As a company that has played a significant role in both regional and national economic development since its establishment, we aim to add value not only to the business world but also to society. Our company consistently continues its support through social responsibility projects, taking into account societal expectations.

We shape our social responsibility activities primarily in accordance with regional and national needs. Through projects implemented in areas such as education, environment, culture, and arts, we contribute to social development.

### Er-Bakır Responsibility and Activity Club

At Er-Bakır, we continue to create social value with our Responsibility and Activity Club team and proudly support the voluntary efforts of our employees in this process.

Er-Bakır goes beyond being an industrial enterprise, setting one of its core objectives as creating value outside of its commercial activities and contributing to social life as a respected member of society. In line with this vision, various projects are implemented with the voluntary support of our employees to contribute not only to the business world but also to social and cultural spheres.

Er-Bakır Responsibility and Activity Club serves as a platform that supports employees' desire to benefit society and shapes projects through their participation. This voluntary team, composed of our employees, aims to strengthen bonds within the Er-Bakır family while contributing to the social and cultural life of Denizli. In addition to helping employees make the best use of their free time, the team also carries out activities that enhance the company's societal presence.

Through the club, the creativity and energy of our employees are transformed into social benefit, leading to initiatives that add value to Denizli and its surroundings. Activities are carried out across a wide spectrum, including education, environmental initiatives, cultural events, and aid projects.



## Bakirkent: A Project That Enhances the Quality of Life for Er-Bakır Employees

At Er-Bakır, we prioritize the happiness and well-being of our employees not only in their professional but also in their social lives. With this approach, the Bakirkent project, whose foundations were laid in 1998, was initiated to provide employees with healthy, spacious, and comfortable housing. Completed in 2007, Bakirkent was designed as a living space that strengthens social relationships among employees and enhances their quality of life.

Located in one of Denizli's residential development areas, Bakirkent provides modern living conditions for nearly 100 employees. More than just a housing project, it offers a pleasant living environment with spacious playgrounds, gardens, parking lots, shelters, and social facilities for employees and their families. With safe play areas for children, green spaces for families, and social facilities, Bakirkent adds value to the lives of Er-Bakır employees.



## Er-Bakır Science High School: An Investment in the Future

At Er-Bakır, we continue to invest in the youth of our country through education projects, laying the foundation for a brighter future with Er-Bakır Science High School.

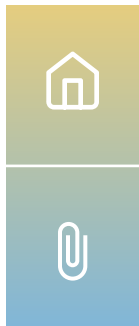
Established in 2004, Er-Bakır Science High School aims to be a center of excellence in science education for high-achieving students from Denizli and surrounding areas. With modern educational facilities and a well-equipped infrastructure, the school provides a high-quality education to students who will shape the future of our country.

With nearly 500 students, Er-Bakır Science High School is one of the leading science high schools in the country, offering an academically focused education. With outstanding performance in university entrance exams, the school consistently ranks among the top science high schools in Türkiye, with its students securing full or partial scholarships at the nation's most prestigious universities.

Beyond academic excellence, Er-Bakır Science High School is committed to fostering scientific thinking skills and social responsibility awareness among students. With laboratories, libraries, sports facilities and social activities, the school provides an environment that supports both academic and personal development.

To encourage academic success and inspire students to set higher goals, Er-Bakır rewards students who rank within the top 1,000 nationally in university entrance exams.





# APPENDICES

# Environmental Performance Indicators



## Energy and Emissions

Non-Renewable Direct Energy	Unit	2021	2022	2023
Gasoline	Liter	10,217	50,758	13,499
Diesel/Fuel Oil	Liter	47,606	48,219	44,282
Natural Gas	Sm <sup>3</sup>	7,862,273.7	7,868,884.1	7,274,105
Oak Coal	kg	11,340	17,946	5,380
Non-Renewable Indirect Energy	Unit	2021	2022	2023
Electricity	kWh	76,136,438.7	77,653,107.5	70,851,224
Steam	kWh	15,096,900	15,980,300	17,910,200
Energy Procured from Renewable Sources	Unit	2021	2022	2023
Solar Power Plant	kWh	0	0	2,166,000

# Environmental Performance Indicators



## Energy and Emissions

GHG Emissions	Unit	2021	2022	2023
Direct Emissions (Scope 1)	tCO <sub>2</sub> e	15,477	13,928	14,644
Indirect Emissions (Scope 2)	tCO <sub>2</sub> e	34,209	35,728	32,784
Indirect Emissions (Scope 3)	tCO <sub>2</sub> e	1,006,498	1,061,421	927,109



## Waste Management

Total Waste by Type	Unit	2021	2022	2023
Hazardous Waste	kg	783,400	963,119	741,655
Non-Hazardous Waste	kg	984,586	297,210	339,745

Waste Disposal by Method	Unit	2021	2022	2023
Recycling/Recovery	kg	1,767,969	1,260,276	1,081,343
Other Disposal Method	kg	17	53	57

# Environmental Performance Indicators



## Water Management

Water Management	Unit	2021	2022	2023
Total Withdrawn Water Volume (Municipal Water)	m <sup>3</sup>	360	380	360
Total Withdrawn Water Volume (Groundwater)	m <sup>3</sup>	210,384	255,624	241,140
Wastewater Discharge to Sewerage	m <sup>3</sup>	90,500	94,146	93,912
Water Consumption	m <sup>3</sup>	120,144	123,828	115,728

# Social Performance Indicators



## Workforce

By Employment Type	Unit	2021	2022	2023
White-Collar - Female	Person	35	43	42
White-Collar - Male	Person	141	155	142
Blue-Collar - Female	Person	0	0	1
Blue-Collar - Male	Person	641	676	705
<b>Total</b>	<b>Person</b>	<b>817</b>	<b>874</b>	<b>890</b>
By Contract Type	Unit	2021	2022	2023
Permanent - Female	Person	35	43	43
Permanent - Male	Person	782	831	847
<b>Total</b>	<b>Person</b>	<b>817</b>	<b>874</b>	<b>890</b>
By Gender	Unit	2021	2022	2023
Male	Person	782	831	847
	Ratio	96%	95%	95%
Female	Person	35	43	43
	Ratio	4%	5%	5%
<b>Total</b>	<b>Person</b>	<b>817</b>	<b>874</b>	<b>890</b>



# Social Performance Indicators

By Age Group	Unit	2021	2022	2023
18-30 Age Group	Female	3	11	14
	Ratio	0,37%	1,26%	1,57%
	Male	141	200	243
	Ratio	17%	23%	27%
31-40 Age Group	Female	22	22	19
	Ratio	3%	3%	2%
	Male	369	374	367
	Ratio	45%	43%	41%
41-50 Age Group	Female	8	8	8
	Ratio	1%	1%	1%
	Male	189	183	173
	Ratio	23%	21%	19%
51-60 Age Group	Female	2	2	2
	Ratio	0%	0%	0%
	Male	69	60	51
	Ratio	8,45%	6,86%	5,73%
Above 60 Age Group	Female	0	0	0
	Ratio	0%	0%	0%
	Male	14	14	13
	Ratio	1,71%	1,60%	1,46%
<b>Total</b>		<b>817</b>	<b>874</b>	<b>890</b>



# Social Performance Indicators

Other Groups	Unit	2021	2022	2023
Disabled Employees	Female	0	0	0
	Ratio	0%	0%	0%
	Male	26	27	21
	Ratio	3,18%	3,09%	2,36%
By Management Category	Unit	2021	2022	2023
Senior Management	Female	2	2	2
	Ratio	0,24%	0,23%	0,21%
	Male	24	25	22
	Ratio	2,94%	2,86%	2,36%
Middle Management	Female	6	8	8
	Ratio	0,73%	0,92%	0,90%
	Male	21	22	20
	Ratio	2,57%	2,52%	2,25%
Other	Female	27	33	33
	Ratio	3,30%	3,78%	3,71%
	Male	737	784	805
	Ratio	90,21%	89,70%	90,45%
<b>Total</b>		<b>817</b>	<b>874</b>	<b>890</b>



# Social Performance Indicators

Employment and Turnover	Unit	2021	2022	2023
New Hires - Total	Person	133	121	105
White-Collar	Person	10	29	17
Blue-Collar	Person	123	92	88
Exits - Total	Person	70	72	107
White-Collar	Person	14	20	16
Blue-Collar	Person	56	52	91
By Gender	Unit	2021	2022	2023
Male - New Hires	Person	130	111	99
	Ratio	97,74%	91,74%	94,29%
Male - Exits	Person	68	68	105
	Ratio	97,14%	94,44%	98,13%
Female - New Hires	Person	3	10	6
	Ratio	2,26%	8,26%	5,71%
Female - Exits	Person	2	4	2
	Ratio	2,86%	5,56%	1,87%



# Social Performance Indicators

By Age Group	Unit	2021	2022	2023
18-30 Age Group - Hired	Person	105	95	80
	Ratio	78,95%	78,51%	76,19%
18-30 Age Group - Exit	Person	32	27	52
	Ratio	45,71%	37,50%	48,60%
31-40 Age Group - Hired	Person	24	25	23
	Ratio	18,05%	20,66%	21,90%
31-40 Age Group - Exit	Person	22	25	15
	Ratio	31,43%	34,72%	14,02%
41-50 Age Group - Hired	Person	0	0	2
	Ratio	0%	0%	1,90%
41-50 Age Group - Exit	Person	7	11	22
	Ratio	10%	15,28%	20,56%
51-60 Age Group - Hired	Person	2	1	0
	Ratio	1,50%	0,83%	0%
51-60 Age Group - Exit	Person	9	8	18
	Ratio	12,86%	11,11%	16,82%
Above 60 Age Group - Hired	Person	2	0	0
	Ratio	1,50%	0%	0%
Above 60 Age Group - Exit	Person	0	1	0
	Ratio	0%	1,39%	0%



# Social Performance Indicators



## Training & Employee Engagement

All Training (By Type)	Unit	2021	2022	2023
Professional Development	Hours	13,090	10,760	16,226
Personal Development	Hours	847	494	467
Other (Leadership)	Hours	1,291	-	-
<b>Total Training Hours</b>	<b>Hours</b>	<b>15,228</b>	<b>11,254</b>	<b>16,694</b>
Employee Engagement	Unit	2021	2022	2023
Employee Engagement & Satisfaction Score (Conducted every 2 years)	Ratio	48.75%	-	58%
Success Rate of Orientation & Retention Program for Newly Hired Employees (0-2 years)	Ratio	66.92	64.46	60

# Social Performance Indicators



## Occupational Health and Safety

Occupational Health and Safety Training	Unit	2021	2022	2023
Number of Company Employees	Person	826	885	918
Number of Subcontractor Employees	Person	23	23	25
<b>Total Participants</b>	<b>Person</b>	<b>849</b>	<b>908</b>	<b>943</b>
Number of Company Employees	Person* Hour	1,181,822	1,259,043	1,269,797
<b>Total OHS Trainings</b>	<b>Person* Hour</b>	<b>4,079</b>	<b>4,372</b>	<b>5,003</b>
Accidents	Unit	2021	2022	2023
<b>Near Miss Cases</b>	Case/Year	9	15	14
<b>Accident Frequency Rate</b>	Rate	33	40.51	35.44
<b>Fatalities</b>	Case/Year	0	0	0
Lost Days	Unit	2021	2022	2023
<b>Lost Days due to Work Accidents</b>	Rate	0.47	0.44	0.71
<b>Absenteeism Rate (AR)</b>	Rate	67.24	72.98	70.11

# Social Performance Indicators



## Supply Chain Management

Supply Chain Management	Unit	2021	2022	2023
Number of Local Suppliers	Count	679	685	729
Ratio of Local Suppliers	Ratio	91%	90%	90%
Number of Copper Suppliers	Count	26	23	21
Number of Non-Copper Suppliers	Count	722	738	789



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	2-3 Reporting period, frequency and contact point	Page:2
	2-4 Restatements of information	Page:2
	2-6 Activities, value chain and other business relationships	Page:8,11
	2-8 Workers who are not employees	Page:45,46
	2-9 Governance structure and composition	Page:6,27
	2-11 Chair of the highest governance body	Page:6,27
	2-12 Role of the highest governance body in overseeing the management of impacts	Page:27
	2-14 Role of the highest governance body in sustainability reporting	Page:27
	2-16 Communication of critical concerns	Page:27
	2-19 Remuneration policies	Page:46
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# GRI Content Index

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Energy		
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Water and Effluents		
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	303-4 Water discharge	Page:41,55
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# GRI Content Index

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	306-2 Management of significant wasterelated impacts	Page:42
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<b>Supplier Environmental Assessment</b>		
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# GRI Content Index

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# GRI Content Index

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Reporting Consultancy and Design



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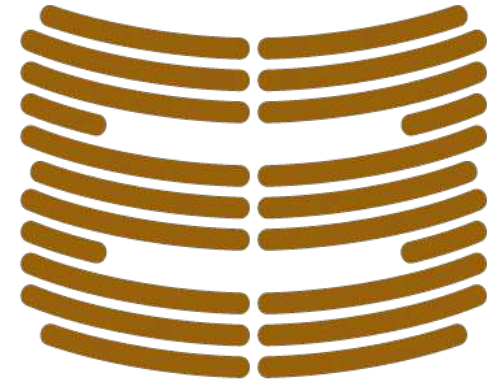
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