

# SUSTAINABILITY REPORT 2014



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1.

# VISION

# 1.1

## Message from the Chairman of Board of Erdemir Group

Having started its production activities in 1965 upon a decision on its establishment during a period of increasing thrust of industrialization and growing need for domestic flat steel, Erdemir Group now celebrates its 50<sup>th</sup> anniversary in the year 2015.

As one of the major industrial corporations of Turkey, we are mindful of our responsibilities on the way to sustainable development. Our efforts to fulfill our responsibilities to the utmost extent are accompanied by our production technology, the perpetual progress we have achieved in energy and source productivity, our activities to minimize our environmental impacts, our innovative solutions, recycling and reproduction needed by user sectors, direct and indirect employment opportunities we provide, and our contribution to the welfare of our employees and the society.



Assuming a significant role to ensure enrichment of existing industrial branches in our country, to contribute to their development, and for the launch of new industrial branches, our Group currently produces 25% of crude steel and 67% of flat steel in Turkey, and supplies 35% of flat steel utilized in Turkey.

In addition to our position as the leading corporation of Turkish steel industry, our Group ranks the 3<sup>rd</sup> among producers of EU-28 countries according to crude steel production figures for the year 2014, remaining as one of the most profitable iron & steel corporations of the world with a new profit of USD 732 million gained in the year 2014. As the only Turkish corporation listed among steel producers assessed by World Steel Dynamics, a prestigious steel research company, according to a number of criteria including capacity, value added production range, cost of production, financial structure and competition, our Group ranks the 10<sup>th</sup> among the 36 companies assessed.

Generating value for a half century in its own adventure from the soil to the final product, and currently providing direct employment opportunities for over 12 thousand people, Erdemir Group is committed to conduct its operations with an awareness of the fact that the quality of life, prosperity, economic competitiveness, sustainability of ecosystem and employment a society all hinge upon a joint natural capital.

To increase the added value we create for our stakeholders and to render it sustainable, we endeavor to achieve our objective to become a “world-class company”. With the support provided by our

main shareholder OYAK for nearly the past two years, we have taken profound and permanent steps towards the aims of becoming a more efficient, more vivid and more active company with the support by our main shareholder OYAK, to build up the image of Erdemir Group and to strengthen our financial power. Placing corporate governance approach and innovation at the heart of our business culture, we have established strong foundations that will lead us to our destination. We have implemented the initiatives, innovations and investments which have had their positive reflections on our financial and operational results in the short term and are expected to maintain our success in the long term. Accordingly, one of the most significant developments in the year 2014 was our establishment of the first R&D Center in Turkish steel industry.

Our objective for the next 5 years is to become a world-class company producing optimal value for all stakeholders as well as solutions for current and future needs, and to be respected, followed and preferred. Having internalized the sustainability approach, we carry on our journey of production as a company respecting economic, social and environmental needs of today and future generations.

Throughout the period until 2050 in which the world’s population is forecasted to reach 9 billion, steel is of critical importance for technologies and sectors building opportunities and power for green economy. We give life to steel, which will continue to be crucial for sustainable development in the next century as the most important engineering and construction material of the future world.

We, as Erdemir Group, have adopted the following main principles of sustainability in this journey:

- *Social development to meet everyone’s needs,*
- *Protection of the environment,*
- *Efficient use of natural resources,*
- *Providing balance between growth and employment.*

Under the light of these principles I would like to present this report of our activities, improving the quality of life for all our stakeholders today and in the future as a company committed to create sustainable value and I would like to thank all of our stakeholders who have always supported us in our journey.

Ali Pandir  
Chairman of the Board of Directors

# 1.2

Our Vision for 2020

# BECOMING A WORLD CLASS COMPANY

- A Valuable Brand
- A Well-Known, Reputable and Admired Company
- Happy and Loyal Employees
- Attracting and Developing Talents
- A Global Point of View
- Shaping the Needs of Customers
- A Unique Production System Leanexible and Agile
- A Strong Financial Basis
- A Strong Commitment to Innovation
- Respecting Society, Humans and the Environment



# 1.3

## Scope of the Report

Enjoying the overall positive results of the restructuring period in which very significant steps have been taken in terms of sustainability, Erdemir has issued a sustainability report again on the occasion of its 50<sup>th</sup> anniversary to announce the economic, environmental and social impacts of its activities.

This report covers the activities of Eregli Demir ve Celik Fabrikaları T.A.S. (Erdemir), the parent company of Erdemir Group, in field of sustainability during the period 1 January - 31 December 2014. The social and environmental data in the report contains non-consolidated information about Erdemir, and economic data includes consolidated information about the Erdemir Group. Aiming at sharing the economic, environmental and social impacts of its activities with stakeholders, Erdemir Group has been planning to issue reports on annual basis, to rely on the guidance of international standards for this purpose, and to incorporate other companies of Erdemir Group in the scope of the report in the coming years.



## ERDEMİR and İSDEMİR MANAGEMENT SYSTEMS POLICY

Erdemir, a large integrated steel producer which adds considerable value to the national economy, produces steel products in compliance with national & international standards.

We maintain all our activities with transparency, in accordance with the international standards and legal rules and with great sensitivity of the stakeholders' requirement and expectations.

Our Occupational health and safety, quality, environment and energy management systems policy is based on management by objectives, creating resources for our objectives, continuous improvement and increasing awareness of our employees.

### The principles of our policy are as follows;

#### Occupational Health and Safety (OHS)

- Producing "accident-free steel" by implementing Risk Management,
- Providing a safe working environment and protecting the health of our employees,
- Increasing the awareness of our employees in accordance with sustainable safety culture.

#### Quality

- Disseminating customer-focus throughout the company with effective communication,
- Establishing innovative and creative corporate culture,
- Increasing our profitability by projects and improvements in which increasing our productivity and saving cost.

#### Environment

- In the frame work of sustainability, using technology in which minimize the negative the impacts on environment and maintaining natural resources by using raw material efficiently and effectively,
- Examining and monitoring the impact of all our activities in order to maximize our environmental performance,
- By promoting waste minimization and recovery, eliminating and disposing wastes.
- Informing, raising awareness and clearly communicating with our whole stakeholders who are composed of our employees, customers, suppliers, society and government about the environmental viewpoint, applications and performance results of Erdemir.

#### Energy

- Implementing technological innovations that provide superior energy efficiency.
- Taking the utmost benefit from by-product gases and waste at temperatures that comes out during the production process.
- Minimizing the energy losses by systematic measurement and monitoring.

As Erdemir Group, we will pursue the aforementioned principles and reflect them on our attitude and business performance.

Released with the announcement dated 18.07.2014.

2.

**CORPORATE  
PROFILE AND  
ECONOMIC  
INDICATORS**



# 2.1

## Steel and Our Sustainability Approach

With its foundations established in 1930s, Turkish iron and steel industry has played an important role in economic development and industrialization. Iron and steel production in Turkey first started in 1928 in Kırıkkale to meet the demands of the defense industry for steel. The initial investments in the steel industry were performed in 1930s in frame of the 1st and the 2nd industrial plans; the industry has displayed a growth, mainly in form of integrated plants, under the monopoly of public sector.

Karabük Iron and Steel Factories (KARDEMİR), the first integrated iron and steel plant in Turkey to produce long products, started its activity in 1937, which was followed by Ereğli Iron and Steel Factories (Erdemir) in 1965, the second integrated facility to meet the demand for flat products. In 1975, Iskenderun Iron and Steel Factories (İsdemir), the third integrated facility of Turkey, was put into operation again to meet the demand for long product and semi finished products.

Privately owned electric arc furnace (EAF) plants began to perform activity in 1960s. With İsdemir and 5 enterprises with privately owned EAFs put into operation in 1970s, iron and steel industry reached up to an annual production capacity of 4,2 million tons of liquid steel in 1980.

Liberalization movements witnessed in the economy in 1980s became a turning point not only in terms of Turkish economy but also the development of iron and steel industry. Iron and steel industry displayed a huge growth in 1980s in parallel to the regulations concerning the establishment of new EAF facilities and the operation of free market mechanism in all aspects.

In 2000, the smelting capacity of Turkey displayed an increase by 5 times compared to the year 1980, reaching up to 20 million tons. The crude steel production capacity of Turkey has increased by 153% percent (30,4 million tons) since 2000, reaching up to 50,2 million tons in 2014.

1,66 billion tons of crude steel production was realized in the world in 2014, with Turkey maintaining its 8<sup>th</sup> rank with a production amount of 34 million tons.

Currently maintaining its activities with 7 companies, Erdemir Group produced 8.5 million tons of crude steel in the year 2014. 25% of the crude steel production in Turkey is performed solely by Erdemir Group, which continued its activities in 2014 in line with the principles of optimum cost and high quality production with maximum productivity. With its crude steel production figures in 2014, Erdemir Group was listed among top steel producers of World Steel Association, ranking the 45<sup>th</sup> in the World, the 8<sup>th</sup> in Europe and the 3<sup>rd</sup> in EU-28 countries.

Erdemir Group plants produce flat products including hot and cold rolled plate, sheet and tin plated, chromium plated and zinc plated sheet at international quality standards, as well as long products including ingot and coil. Providing basic input with their products for industries such as pipes, automobiles, ship-building, durable household appliances, agricultural instruments, pressure vessels, food and packaging materials and office materials, Erdemir has been pioneering development of the national industry. Having carried out the largest investment projects in the history of our Republic, Erdemir Group has recently increased its capacity of crude steel and finished product at its plants from 500 thousand tons up to 9 million tons, which is supported by continuous diversity of its products and investments aiming at the increase of capacity.

Country	2014		2013		Change in Ranking	2014/2013 %
	Production	Rank	Production	Rank		
China	822,7	1	815,4	1.	→	0,9
Japan	110,7	2	110,6	2.	→	0,1
USA	88,3	3	86,9	3.	→	1,7
India	83,2	4	81,3	4.	→	2,3
S. Korea	71,0	5	66,1	6.	↓	7,5
Russia	70,7	6	68,9	5.	↑	2,6
Germany	42,9	7	42,6	7.	→	0,7
<b>TURKEY</b>	<b>34,0</b>	<b>8</b>	<b>34,7</b>	<b>8.</b>	→	<b>-1,8</b>
Brazil	33,9	9	34,2	9.	→	-0,7
Ukraine	27,2	10	32,8	10.	→	-17,1
Italy	23,7	11	24,1	11.	→	-1,4
Taiwan, China	23,3	12	22,3	12.	→	4,3
Mexico	19,0	13	18,2	13.	→	4,2
Iran	16,3	14	15,4	15.	→	5,9
France	16,1	15	15,7	14.	↓	2,9
<b>World</b>	<b>1661,5</b>		<b>1618,4</b>		↑	<b>1,2</b>

Kaynak: worldsteel - World Crude Steel Production - 22.01.2015

Today, over 1.6 billion tons of steel is produced worldwide. Steel industry, which plays a fundamental role in the development of humanity, has implemented a number of practices to meet the global demand for steel in a sustainable manner by fostering green economy, which is defined by the United Nations Environment Programme (UNEP) as a model that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.

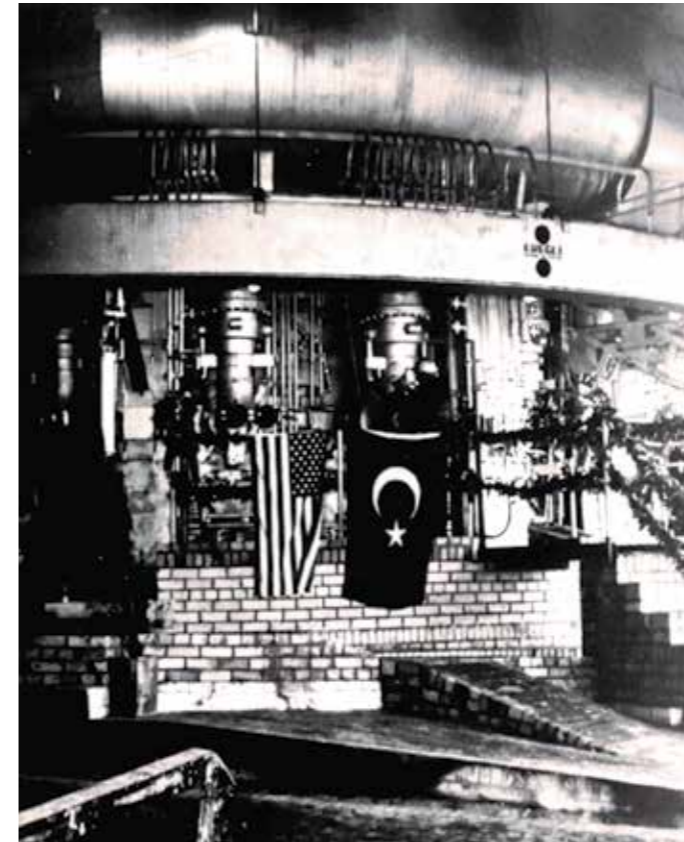


Steel will continue its critical role in the future sustainable development for the technologies and industries which provide opportunities and capabilities for green economy such as renewable energy, resource- efficient and energy- efficient buildings, low carbon transportation, fuel-efficient and clean-energy vehicles, and infrastructure for recycling plants.

Erdemir Group is a member of the World Steel Association, one of the largest and most important global initiatives of steel industry, which has manifested the industry's sensitivity on sustainable development by means of the Sustainable Development Protocol. The protocol consists of the following principles:

- We operate our businesses in an efficient and financially sustainable way in order to supply steel products and solutions that satisfy our customer's needs and provide value to our stakeholders.
- We optimize the eco-efficiency of our products through the product life-cycle. We are committed to the promotion of the recovery, reuse and recycling of steel.
- We foster the well-being of employees in the steel industry and provide them with a safe and healthy working environment.
- We promote values and initiatives that show respect for the people and communities associated with our businesses.
- We conduct our business with high ethical standards in our dealings with employees, customers, suppliers and the community.
- We engage our stakeholders and independent third parties in constructive dialogue to help fulfill our sustainable development commitments.
- We build on our knowledge of sustainability and willingly share it with others. We will help other companies and organizations in the supply chain to implement sustainable practices.

As one of the corporations adopting the protocol, Erdemir Group has been performing its activities to improve its economic, environmental and social performance in parallel to these principles. Maintaining its development with economic performance, environmental awareness, and its sensitive approach towards fulfillment of the expectations of its employees as well as of the society since the date of its establishment, Erdemir Group considers sustainability as a profound component of the corporate governance approach. The controlling shareholder OYAK Group believes that "humans can coexist in harmony with the nature and respect the social, economic and environmental needs of existing and future generations only by ensuring that the concept of sustainability is internalized at every step of human activities", and this very idea is the foundation stone of our Erdemir Group's activities.



## **ERDEMIR, INDUSTRIAL LOCOMOTIVE OF OUR COUNTRY, PRODUCE STEEL WITH EXCITEMENT AND PASSION AND BUILDING THE FUTURE**

The Founders Agreement was signed on 12 February 1960 for establishment of the first flat steel manufacturing facility of Turkey. The Council of Ministers was authorized for foundation of joint stock company under the title of Eregli Demir ve Celik Fabrikaları T.A.S. (Erdemir) under the law no 7462 adopted in 28 February 1960. Erdemir's company was

officially registered on 11 May 1960 both for enhancement of the current industry and, establishment and development of new branches of industry in Turkey which has made a rapid industrialization progress.

Construction and assembly activities which started in 1961 were completed within a short time like 42 months, and Erdemir's journey of production started with a capacity of approximately 0,5 million tons of crude steel and 0,4 million tons of flat steel on 15 May 1965.

The annual crude steel production capacity of Erdemir, which amounted to 470.000 tons in the initial years of activity, increased up to an amount of 2 million ton/ year by the end of 80s.

With the Capacity Expansion and Modernization Project (KAM) as one of the biggest investments of Turkey, Erdemir's crude steel and flat steel production reached 3 million and 3,5 million ton/year, respectively.

## Capital Distribution

# 2.3

In the year 2006, “Blast Furnace No.1 Renewal Project” of Erdemir was realized through design and efforts by Erdemir’s engineers and employees from the project design until commissioning phase. The new Blast Furnace installed almost fully by Erdemir’s own means reflects the company’s 43-year experience, profound knowledge on management, competent labour and trust in employees.

With continuous investments on diversification of products and expansion of capacity, Erdemir has increased its initial crude steel capacity of approximately 500 thousand tons up to 4 million tons, and finished product capacity to over 5 million tons today.

Taking remarkable steps towards its policy involving acquisition of domestic or foreign installed capacities or corporate expansion of new production plants in parallel to its investments, Erdemir has transformed into a large group of companies.

16 Led by Eregli Demir ve Celik Fabrikalari T.A.S., Erdemir Group incorporates Iskenderun Demir ve Celik A.S (Isdemir), Erdemir Madencilik San. ve Tic. A.S (Ermaden), Erdemir Muhendislik Yonetim ve Danismanlik Hizmetleri A.S. (Erenco), Erdemir Celik Servis Merkezi (Ersem), Erdemir Romania S.R.L. and Erdemir Asia Pacific Pte.

Erdemir Group has been carrying on their activity since 27 February 2006 under the light of OYAK’s experience in international markets, financial power and modern management principles as one of the biggest groups of Turkey.

The capital structure as of 31 December 2014 and 31 December 2013 is as follows:

SHAREHOLDERS	(%)	31 DECEMBER 2014	(%)	31 DECEMBER 2013
Ataer Holding A.Ş.	49,29	1.724.982	49,29	1.724.982
Public float	47,63	1.667.181	47,63	1.667.181
Shares held by Erdemir	3,08	107.837	3,08	107.837
Historical share	100,00	3.500.000	100,00	3.500.000

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# 2.4

## Management Structure

The Board of Directors consists of minimum 5 and maximum 9 members in total, to be elected by the General Assembly under the provisions of Turkish Commercial Code and Capital Market Law. Members of the Board of Directors are appointed for three years and independent members for one year; members whose the tenure has expired may be re-elected.

9 members were elected in total at the Ordinary General Meeting dated 31.03.2014, including independent members. The Chairman and the Vice Chairman and a Member of the Board of Directors were authorized as the Executive Directors.

Sedat Orhan, the General Manager of Eregli Demir ve Celik Fabrikalari T.A.S., took office on 16.08.2013.

The type of meeting, the quorum for meeting and the resolution, voting, as well as duties, rights and authorities of the Board of Directors are subject to provisions of Turkish Commercial Code and relevant legislation.

Members of the Board of Directors who hold office as of 31.12.2014:

Board of Directors (*)	Position	Starting Date of Active Duty
OYTAS İç ve Dış Ticaret A.S. (Represented by: Ali Aydın PANDIR)	Chairman of the Board of Directors and Executive Director	27.05.2013
OYAK Girişim Danışmanlığı A.S. (Represented by: Nihat KARADAG)	Vice Chairman of the Board of Directors and Executive Director	12.09.2012
Privatization Administration, Prime Ministry of the Republic of Turkey (Represented by: Ali KABAN)	Member of the Board of Directors	20.09.2012
OMSAN Lojistik A.S. (Represented by: Dinc KIZILDEMİR)	Member of the Board of Directors and Executive Director	11.09.2012
OYKA Kağıt Ambalaj Sanayii ve Ticaret A.S. (Represented by: Ertugrul AYDIN)	Member of the Board of Directors	12.09.2012
OYAK Pazarlama Hizmet ve Turizm A.S. (Represented by: Fatma CANLI)	Member of the Board of Directors	13.09.2012
Nazmi DEMİR	Independent Member of the Board of Directors	29.06.2012
Atilla Tamer ALPTEKİN	Independent Member of the Board of Directors	29.06.2012
Emin Hakan EMİNSOY	Independent Member of the Board of Directors	04.03.2014

## Production

# 2.5

Producing high-quality and reliable steel products at international standards at its plants equipped with the state-of-the-art technology, Erdemir Group has been continuously diversifying its product range in line with the customers' needs and expectations. The Group performs production in compliance with the Quality ISO 9001, the Environmental Management TS EN ISO 14001, the Occupational Health and Safety OHSAS 18001, the Quality ISO TS 16949 for Automobile Industry, and Energy Management TS EN ISO 50001 Standards, offering products conforming to the norms SAE, DIN, EN, TSE, BS, API at domestic and overseas markets.

### Hot Rolled Flat Steel Products



Flat steel obtained through rolling the semi-finished product rectangular in cross section (slab), produced by means of continuous casting, at a certain temperature.

Roll or cut to length sheet: Products with thickness varying from 1.20 to 25.00 mm in roll or cut-to-length sheet forms.

Plate: Products with thickness range of 6.00 - 200.00 mm and width of 1,000-3,600 mm.

These are mainly used for purposes of construction, ship building, automobile industry, and manufacturing of pressure vessels, agricultural instruments, pipes and LPG cylinders.



### Cold-Rolled Flat Steel Products

Flat steel products in roll or sheet forms obtained by cold-rolling of hot-rolled flat steel, with thicknesses ranging from 0.20 to 2.00 mm. In addition to fully meeting the expectations with their properties concerning the surface flatness and the width and thickness variation, the physical properties of the produced materials fully remain homogenous along the roll all made very possible by the very first tandem cold-rolling mill in Turkey.

The products are used in general construction and automobile industry as well as for manufacturing of durable household appliances, office equipment, furniture and kitchen appliances.

### Galvanized / Galvanealed Flat Steel Products

Galvanized flat steel is produced by hot-dipping of cold-rolled metal through a zinc bath where both surfaces are coated with a layer of zinc. Subsequent to the process of zinc coating on the surface of the steel, by converting the interfacial layer into zinc-iron alloy through induction heating galvanealed flat steel is produced. This process is applied in order to enhance material lifespan and prevent corrosion which will eventually occur on the material surfaces in the presence of water or air moisture.

Therefore, galvanized materials produced through this coating process constitute the most significant input for automotive sector as well as sectors engaging in outer surface coating.

Zinc coating is protected through chromating and/ or greasing of the surface. The surface grades of galvanized materials are produced at three different surface types (A, B, C strictly adhering to relevant international standards.

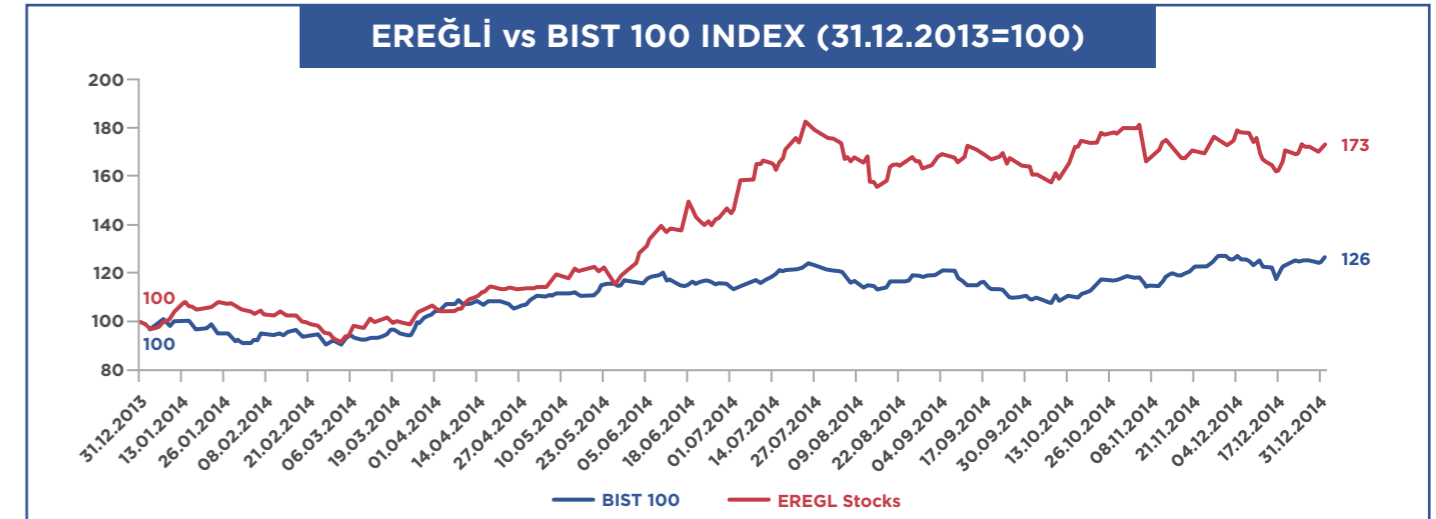
### Tin / Chrome Coated Flat Steel Products (Tinplate)

Cold-rolled mild flat steel, low in carbon is coated with various amount of tin and produced through electrolysis method. This type of flat steel has the thickness ranging from 0.12 to 0.60 mm, being either in roll or sheet forms.

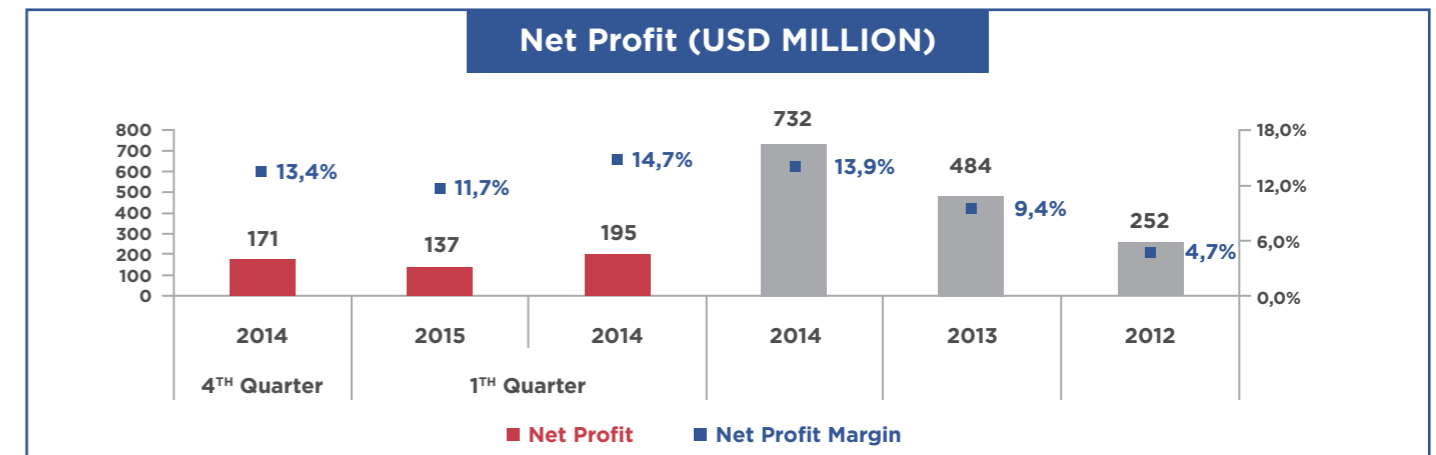
Such products are mostly utilized in metal packaging industry for the manufacturing of diverse industrial goods such as; cans of industrial grease, dyes and other chemicals, tins or cans composed of two to three pieces, cans of tomato paste, butter and cheese, soft drink cans, jars, crown/soft drink lids, ring-pulls, aerosol cans, decorative boxes, toys, and stationary materials.

## Market Value and Net Profit

# 2.6



- Having started the first trading day of the year 2014 with an opening price of 2,58, Ereğli stocks ended the year at a price figure of 4,46, marking a share premium ratio of 73%.
- When compared to the BIST 100 index and based on 31.12.2013=100, the BIST 100 index had posted an increase of 26% during the 2014 full year. Meanwhile, Ereğli stocks yielded a return of 73%. The extent to which Ereğli stocks outperformed the index resulted in an increase in shareholder satisfaction and commitment.
- With parallel movements to the BIST 100 index in the first half of the year, Ereğli stocks outperformed the BIST 100 index as a result of a dramatic decline in global steel industry beginning from the second half of the year, supported by high profitability achieved through operational success of the company.
- Impacted positively by the net dividend payment on May 26, 2014, Ereğli stocks became one of the year's best performers on the Borsa Istanbul, on which it has been listed since the establishment of this exchange in 1986, as well as in the BIST 30 index, which Ereğli is a component of.



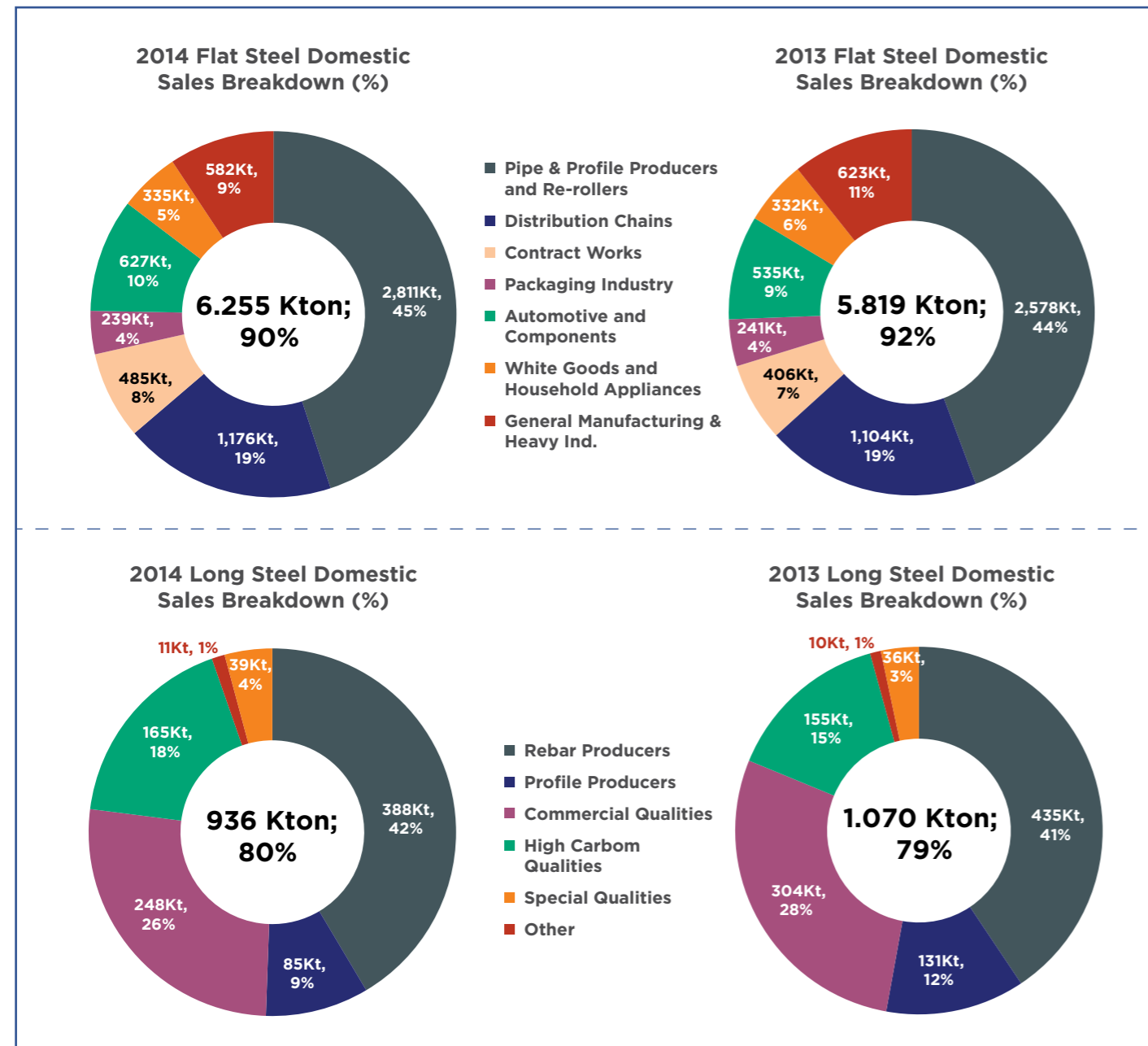
# 2.7

## Customer Sectors

## The Value We Add to Economy

# 2.8

### Sales to automotive and components industry increased in 2014 YoY



Erdemir coming on stream to commence domestic flat steel production in Turkey has been an important milestone for Turkish industry. Having always supported the industrialization thrust of our country, Erdemir Group has accelerated the development of Turkish industry by supplying raw material to all branches of industry in its half-century history, satisfying the ever-increasing domestic demand through continuously improved technology and capacity, paving the way for new branches industry, and giving support to export.

The Modernization and Transformation Investments made by Erdemir Group to İsdemir, as the biggest investment ever made at once in Republican History, made considerable contribution to the elimination of structural imbalance in relation to production of long/flat products in the Turkish iron-steel sector. Continuing its investments non-stop in line with the principle of continuous development, Erdemir Group does plan to invest in 4 major groups, namely modernization, environment, energy recovery, and capacity increase/product diversity, with approximately USD 500 million in 2015 and over USD 1 billion until 2019.

According to data of 2014, Erdemir Group produced 25% of the overall raw steel, and 67% of the flat steel production in Turkey. Erdemir Group's share in flat steel usage in Turkey amounted to 35%. By each ton of flat steel produced, Erdemir Group is contributing to reduce the current deficit of our country. Having carried out 27% of Turkey's flat steel exports on its own in 2014, with exports made to 40 different countries, the Group is making also indirect contribution to national economy through the support it gives to exports made by steel-using sectors.

As one of Turkey's most employment creating corporations, Erdemir Group is offering job opportunity to over 12 thousand employees, while contributing to work life and public finance by satisfying the employees' social security rights at highest level in compliance with applicable law.

The codes of conduct and working principles adopted by Erdemir have been put into practice after being updated in line with the Group's vision "to become a world class company." The fundamental values and principles of Erdemir Group serve as guidelines for the Group's business ethics, and constitute the expectations, standards, and ethical practices which form the basis for all of the Group's principles in relation to any act and action.

The codes of conduct adopted by Erdemir Group are arranged in four major headings: "honesty, avoidance of conflict of interest, protection of business secrets & confidentiality, and responsibilities."

Also addressed are issues such as taking action in favour of relatives or accepting/giving presents. In this context, the principle of "the giving, taking, or offering of bribes and/or commissions is unacceptable under any circumstance whatsoever" is implemented with utmost care.

The heading "responsibilities" does refer to our legal responsibilities as well as the responsibility towards customers, shareholders, employees, suppliers/business partners, competitors, the society, the mankind, and at last but not least, towards Erdemir. To satisfy its responsibility towards employees, it is a priority for Erdemir Group to create a fair and safe work environment. To that end, the codes of conduct point out inter alia that "Discrimination of company employees according to their language, race, colour, gender, political view, belief, religion, sect, age, physical disability, or similar is unacceptable under any circumstance whatsoever".

### 7. AIR SEPARATION PLANT

The testing and commissioning of the 7. Air Separation Plant, the construction of which had started in August 2012, were completed on the 15<sup>th</sup> of January 2015, and the plant commenced production. Making significant contribution to the satisfaction of industrial gas consumption requirements which increase in parallel with investments and capacity increase requirements of Erdemir units, the plant increased the oxygen, gas nitrogen, and liquid argon production capacities of Erdemir Air Separation Plants by 43%, 54%, and 44%, respectively.





### STEEL SERVICE CENTRES

Continuing its productions using state-of-the-art technology equipments with the aim to offer better service to its customers, Erdemir Steel Service Centres (ERSEM) commissioned a hot shearing line with a capacity of 150.000 tons at the Ereğli facilities in August.

The cut-to-length line, which was commissioned in 2014 in order to strengthen Erdemir Group's distribution channels while increasing the sales to various sectors including automotive, white goods etc. and contributing to increased product diversity, is capable to dimension materials of 2 to 8 mm thickness with a processing speed of 60mm per minute.

The hot slitting line, which was procured by ERSEM from the Spanish company FAGOR for its plants in Iskenderun, started productions in August subsequent to completion of weighbridge calibration procedures. Capable to slit rolls in the range of 1,2-10 mm, the line has the ability to provide min. 40 mm slice width and to process coils with a width of max. 2100 mm.

### 3. SLAB FURNACE MODERNIZATION

The modernization of 3. Slab Furnace, which had been put into operation at Erdemir in 1992, was completed on the 8<sup>th</sup> of May 2014.

Within scope of the project, an Evaporative Cooling System (ECS) was installed, in which cooling is carried out by means of closed cycle water cleared of from any corrosive impact through removal of the minerals and gases contained in it, instead of service water which was used to cool the supporting water tubes inside the furnace.

By virtue of the Evaporative Cooling System, it became possible to generate 16 bar process steam, while energy recovery of ca. 40Mcal per ton could be achieved through production of 10 tons/h steam in average.

For the purpose of increased surface quality of finished products, the ceramic firebox bottom was removed; the space gained therefrom was included into the furnace to create a new heating zone. Twisting support tubes were passed through the new zone included into the furnace volume, in order to get rid of skid marks caused by shadow impact. 4 digital burners have been added for the new heating zone. For the ECS and new heating zone digital burner controls, a Level 1 program was written and adapted to the system.

## Erdemir R&D Centre

# 2.11

Having continued its activities as a separate directorate at Erdemir from 1980's until 2006, R&D was merged with the Quality Metallurgy Group in 2006. In 2012, requirements and organization structure of the R&D Centre were identified, and established on 24<sup>th</sup> August 2012 the R&D Directorate was accordingly. On 17 October 2012, start was given to the journey of Erdemir R&D Centre with a cadre of 12 people.

As result of the amendment of law nr: 5746 in 2014, Erdemir Group accelerated its targets to become a R&D Centre, and filed its application to the Ministry of Science, Industry & Technology on 4<sup>th</sup> July. With the application approved on 26<sup>th</sup> August, the Group became the 162nd ministry-approved R&D Centre.



The R&D Centre carries on its research and development activities in 4 major sections with a total of 44 R&D employees, namely Raw Materials and Iron Production, Steel Production and Casting Technologies, Hot Product and Process, Cold Product and Process. Among all researching R&D employees, 7% have a Ph.D. degree or higher, % 5 continue their Ph.D.degree, 32% have a master's degree, 16% have a bachelor's degree, while 23% continue their graduate studies.

Located on a land of 10 decares reserved for R&D with a usage area of almost 1.000 m2, the Centre has sample preparation, metallographic, physical simulation, and metal shaping laboratories on the ground floor, while there is an open office for research staff as well as meeting halls upstairs.



Metallographic Laboratory



Within scope of the Simulation Centre which is intended for commissioning in 2015-2016; 2 comprehensive laboratories will be established, namely “Raw Material R&D Simulation Laboratory” and “Product Development R&D Simulation Laboratory”. Thus, it will be possible to make tests at much lower costs and in much shorter time, without occupying the major production lines and without causing any loss of production, along with the chance to improve all steel qualities and notably to develop Advanced High Strength Steels (AHSS). The Simulation Centre will be equipped with a Vacuum Induction Furnace, Hot Rolling, Cold Rolling, Tempering, Coating, and Sinter Pot Grade Simulators, while each simulator will give the chance to simulate the practises of actual production lines.

**Main targets of the R&D Centre are to:**

- engage in practice- and market-oriented steel research and development activities in order to develop new steel qualities with high added value that will create customer satisfaction and thus contribute to national economy,
- prove itself as an organization which creates value for both our group and the country as an Advanced Steel Research Centre, and
- contribute to the international competitiveness of Erdemir Group.

In 2014, the R&D centre accomplished two projects funded by TÜBİTAK TEYDEB. Having accelerated its new projects with its growing staff in 2015, the Erdemir R&D Centre does and will continue to develop joint projects with scientific institutions in collaboration with universities and the industry, while further reinforcing the R&D infrastructure as a reflection of its vision to become a world class company in the iron-steel sector.

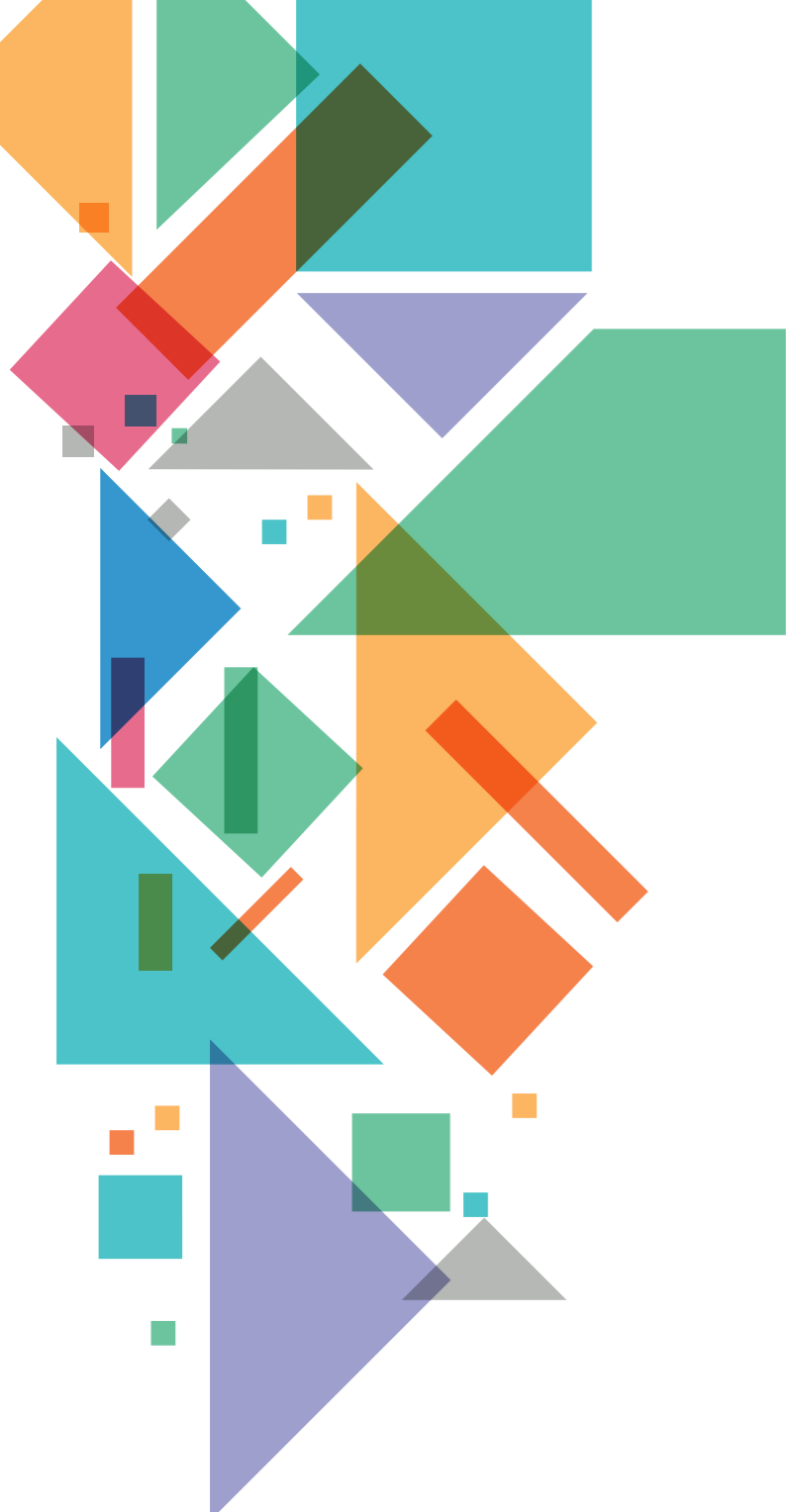


Metal Shaping Laboratory



Physical Simulation Laboratory





3.

**ENVIRONMENTAL  
PERFORMANCE**

# 3.1

## Environmental Management Approach

Respecting the environment; adopting and promoting environmental awareness; using all resources effectively and efficiently; contributing to the awareness and development of our stakeholders by encouraging multidirectional communication, and bequeathing a habitable world to future generations by constantly improving environment management are the integral parts of Erdemir's corporate culture. With its production process mostly relying on the existence and continuity of natural resources, Erdemir aims at utilizing the resources in the most efficient manner without any loss and maintaining waste recovery at the highest possible level. While enhancing our productivity and increasing our profits, our approach towards protecting the nature integrates to all our processes. Our most fundamental principle is to "ensure high quality production in a productive, efficient, accident free, environmentally sensitive and resource-smart manner."

Believing in constant change, Erdemir has been implementing investments and improvement projects to enhance its environment performance since the date of its establishment. Using clean production technologies, keeping recycling at the highest possible level, disposing the least amount of waste to the soil, air and water and constantly enhancing the environment awareness and performance constitute the basis of these investments.

Erdemir attaches great importance to environmental activities and conducts them in line with its short term and long term strategies, designated policies and objectives. The environmental protection approach, which is a part of Erdemir's fundamental management philosophy, has been adopted by its entire staff as well.

To support the environmental protection approach which was initiated by investments, through a systematic structure, the initial efforts were started in 1999 to establish the ISO 14001 Environmental Management System and followed by TS EN ISO 14001 Certificate which was obtained in 2004. In frame of ISO 14001 EMS activities, the operations, functions and processes that have or can potentially have a significant impact on the environment have been defined as environmental processes, and environmental operation procedures and check lists have been created to take such operations, functions and processes under control. The parameters defined in scope of EMS are continuously measured and reported to various organizational units. Feedbacks obtained from internal inspections are discussed at Management Review Meetings to launch the necessary improvement activities for them.

Successfully implementing ISO 14001 Environmental Management System, Erdemir adopts the Environmental Management Process which incorporates the Environmental Management System as an indicator in line with the philosophy of sustainable development.

## From Environmental Management to the Journey of Sustainability

# 3.2

In 2014, the Chief Sustainable Officer was launched to operate in coordination with Environmental Managers of Erdemir Group and to be affiliated to the Chairman of the Board of Directors. The Chief Sustainable Officer reports environmental performance directly to the Chairman of the Board of Directors.

Significant environmental factors and environmental objectives in line with the national legislation and international developments are defined and incorporated in the management strategies.

The primary goals in our Journey of Sustainability include tracing environmental footprints of steel production, supporting its life cycle, promoting the notion of life-cycle and smart product design for widespread reuse, and ensuring recycling of wastes.

To achieve these goals, a Life Cycle Assessment will be initiated in 2015. Life Cycle Assessment is an approach which determines environmental, economic and social dimensions of a product or a production system, starting from the supply of raw material throughout the production and physical life of the product. In this frame, Erdemir believes that such assessment for a sustainable future remains under the responsibility of industrial corporations.

Life Cycle Assessment identifies all environmental impacts during the production phase. The manufacturer performs planning to mitigate and minimize impacts at all these points. What is actually important for the manufacturer is to see the whole picture, taking the entire data to be provided throughout the physical life of the product into account. For ensuring sustainability, it is essential to identify any revisions on designs of products by focusing on the product's purposes of use.

# 3.3

## Environmental Management Process

Environmental Management Process starts with the feasibility reports for the facility and the equipment before the investment and continues throughout the life of the facility. The process also involves the stage in which the facility and the equipment which has completed its economic life are disposed of in accordance with the applicable Environment Regulations.

### Performance indicators measuring the success of the process consist of:

- Environmental Performance Index,
- Material Efficiency,
- Recirculation Water Rate,
- CO<sub>2</sub> Reduction Amounts with the Energy Recovery Projects,
- Conducting TS EN ISO 14001 Environmental Management System Operations,

Efficiency and success of the environmental management process are evaluated during regular meetings chaired by the Environmental Manager with the participation of various units. The process management team which is constituted by different units and disciplines plays an active role in making decisions on the topics, reviewing and assessing the possible outcomes and implementing the determined improvement works and projects.



## Environmental Management Process Performance Indicators

# 3.4

## THE UNIQUE MODEL OF ERDEMIR: ENVIRONMENTAL PERFORMANCE INDEX

The success of environmental performance and environmental management process is monitored by Erdemir's Environmental Performance Index, which has been set forth as a unique model of the Company.

Environmental Performance Index, which is an important indicator for the success of the process, is an internal management process where the past performance and the current environmental performance are compared with a single statistical value. Environmental performance assessment follows the management model of: "Plan (Choosing the Indicator for the Environmental Performance Evaluation) - Implement (Collecting, analyzing and transforming data, assessing the information, reporting and announcement) - Check - Review (Reviewing the Environmental Performance Assessment)".

With this unique model, Erdemir has been awarded with prizes at various platforms. In 2006, Erdemir was chosen the most successful company of Turkey in the Management Systems Category of the EU Environment Awards Turkey Programme. Erdemir representing Turkey with its Environmental Management Process - Environmental Performance Index and Sustainability Activities was listed among the best practices at the "Best Practice in Turkey in Sustainable Development and Green Economy" competition which was organized under the Project to support Turkey's Preparations for the 2012 United Nations (UN) Sustainable Development Conference (Rio+20).

### The environmental performance index has been drafted as a tool that:

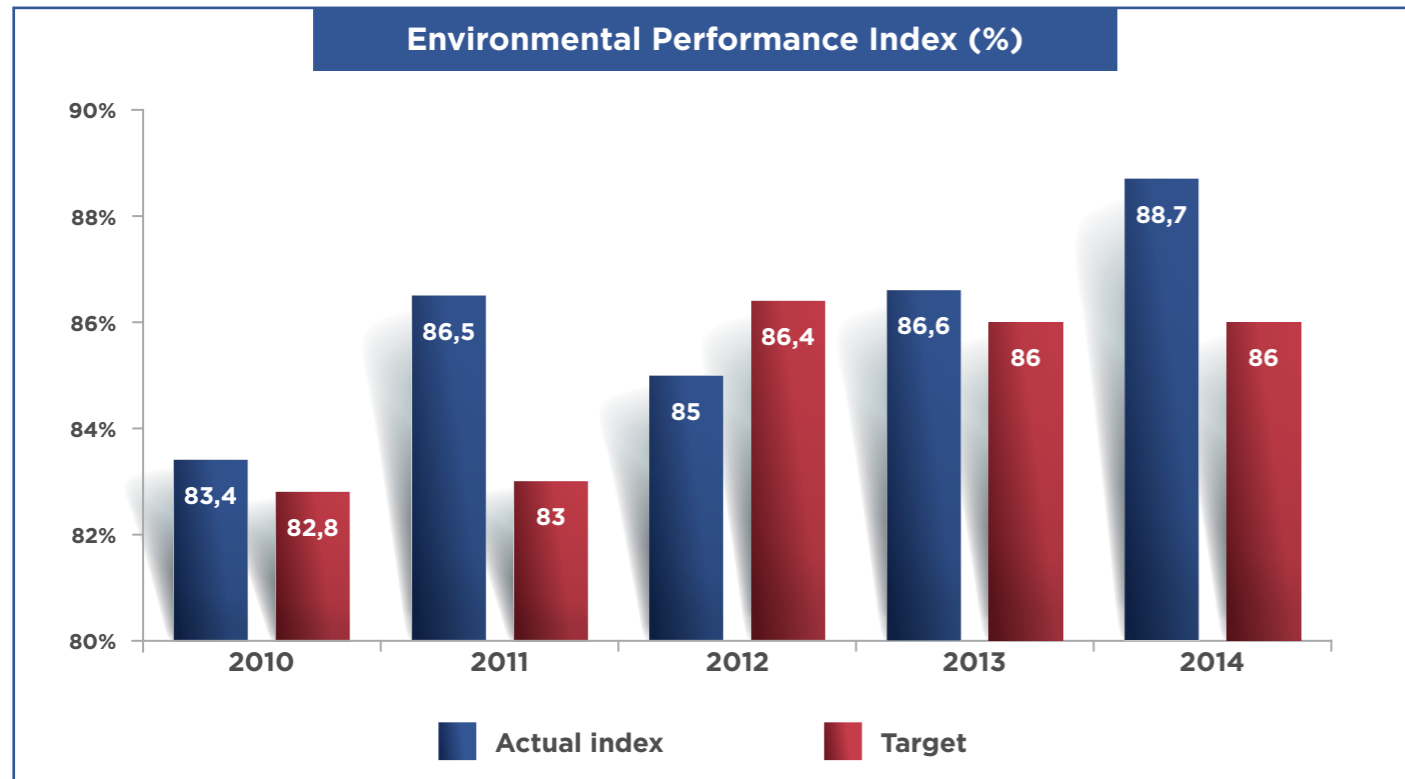
- accurately defines the impacts of production, products and services,
- shows the sustainability of the Environmental Management System,
- reveals the impacts of Erdemir on the host region, and
- is in line with the local, national or international data.

It has also been made sure that these data included our communications with internal and external stakeholders and that they were measurable, correctly definable, guiding and supportive of decision making and proactive processes.

The Environmental Performance Index covers parameters such as water consumption rates,



emission rates, waste recovery rates, ISO 14001 EMS requirements, training - improvement activities, compliance with regulations, environmental accidents, and investments. These parameters, and their sub-diffractions, are constantly monitored, assessed and improved to reduce the environmental impact and natural resource consumption and increase the rate of waste recovery. Additionally, new investments feed in data to the Environmental Impact Assessment reports.

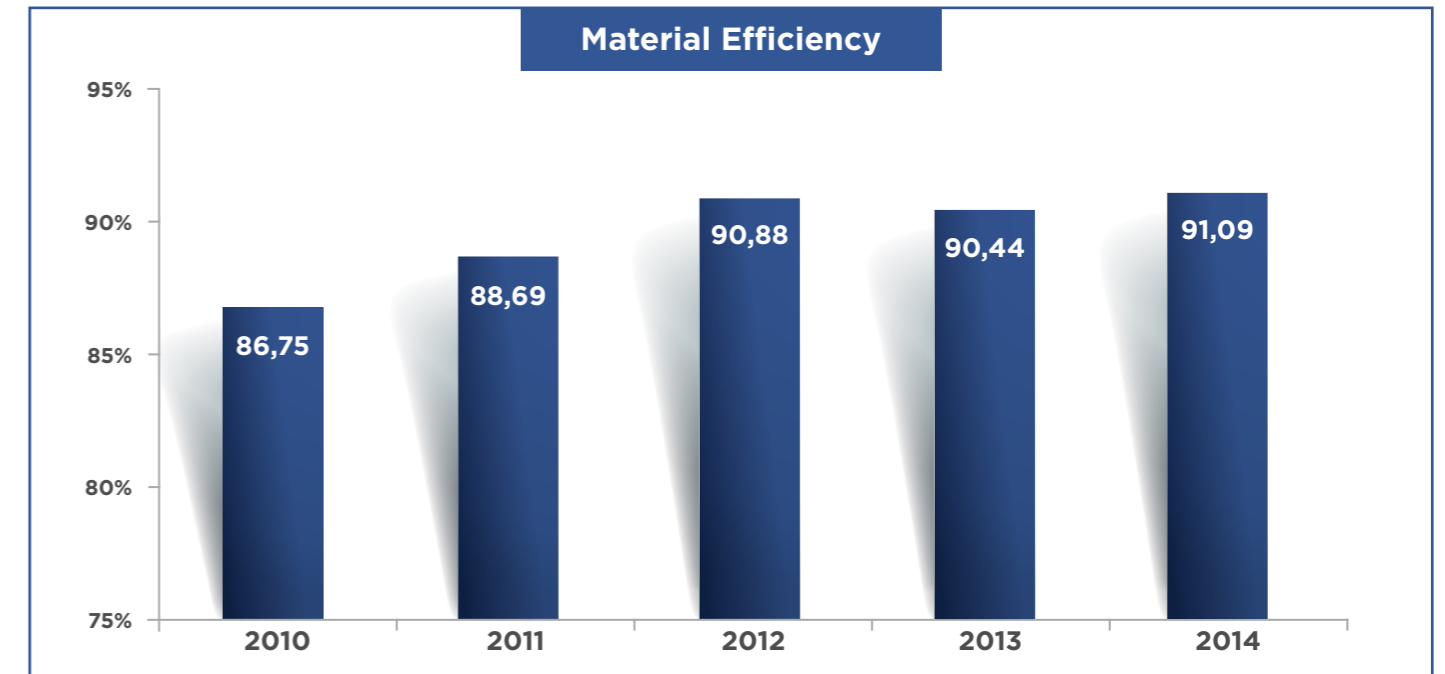


Erdemir compares and evaluates the environmental impacts as a result of production with the applicable laws, rules, regulations, performance standards and voluntary agreements by conducting environmental activities with a process based approach and measuring them according to the index. The environmental impacts are taken under control by using the best methods and technologies at hand, corrected and minimized by using a proactive approach and well balanced data based on measurement and results of analyses.

### Material Efficiency

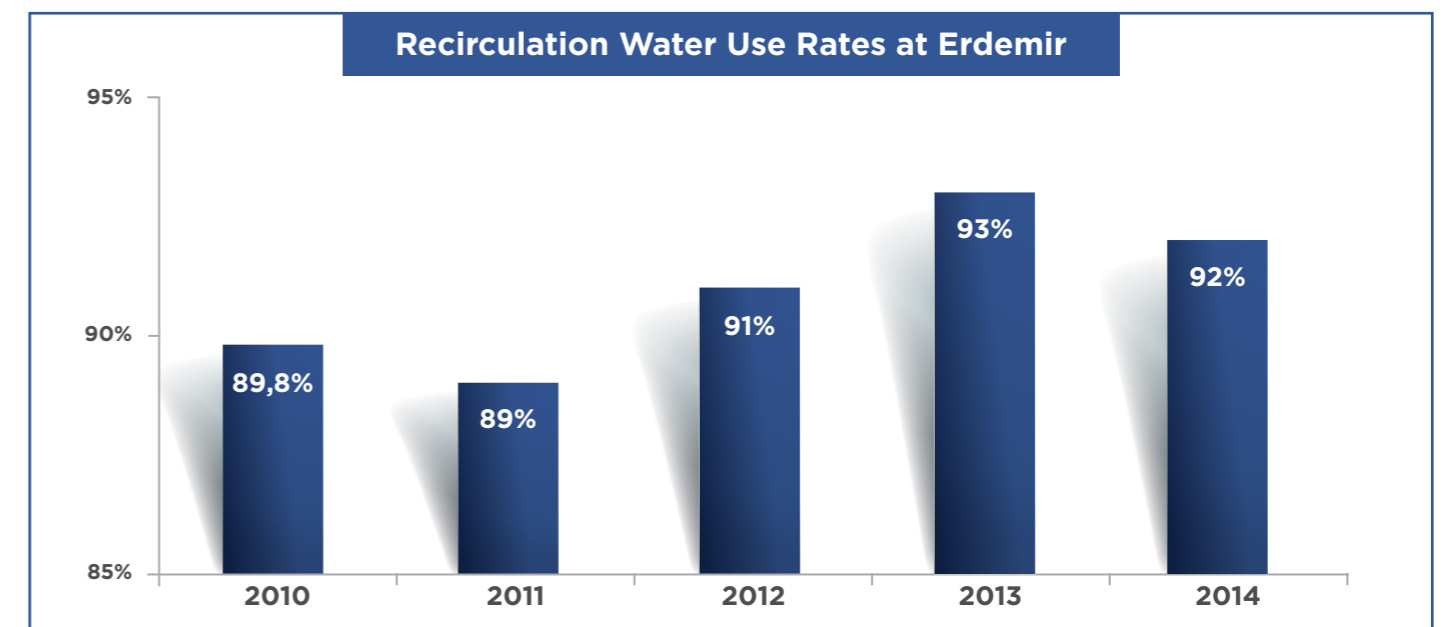
Material Efficiency, which shows the recovery of the waste created during steel production is one of the sustainability indicators defined by the World Steel Association Referring to the rate of total waste material to be disposed of at the stockyard or burned to the economic or physical output, Material Efficiency covers usable and recyclable wastes. The main purpose of Material Efficiency is to identify the quantity of recyclable materials.

With 515.224 tons of ferrous by-products used in the system, Erdemir made savings on raw material amounting to 364.979 tons in total in 2014.



### Recirculation Water Rate

Water is one of the indispensable inputs of iron & steel production. Erdemir attaches great importance to the efficient use of water which is one of our most valuable resources and endeavors to maximize the use of re-circulated water in production processes. Process water is obtained by treatment of river water. 90% of the total amount of water used is subject to treatment for reuse in production. By reducing the rate of service water, Erdemir aims at increasing the amount of recirculated water used in the system.



Note: The rate for the year 2014 is lower than that of 2013 due to the make-up water used during the modernization of the Cooling Tower.



DAFU Plant

DAFU system at a capacity of 25m<sup>3</sup>/h, purifying oily waste water in form of emulsion, was completely dismantled, and replaced by new DAFU system at a capacity of 100m<sup>3</sup>/h. The system was commissioned with full automation, modernized and equipped with automatic dosing systems to minimize operating errors.

**Modernization at Chemical Treatment Plant and DAFU Systems**

**Modernization of DAFU (Dissolved Air Flotation Unit) System:**



DAFU General View

**Modernization of the Chemical Treatment Plant:**

Stabilization ponds at a capacity of 1500m<sup>2</sup> were built in 2014 by having regard to instantaneous load at the chemical treatment system. The system was commissioned with full automation along with stabilization ponds, modernized and equipped with



Chemical Treatment Plant



Continuous Waste Water Monitoring System

automatic dosing systems to minimize operating errors in treatment efficiency.

A Continuous Waste Water Monitoring System was installed at the Chemical Waste Water Treatment Plant to enable 24-hour monitoring of parameters such as pH, dissolved oxygen, temperature, conductivity, etc. by the Ministry of Environment and Urban Planning.

Emissions **3.5**



Dust Measurement Device (Wet Stack)

With the expenditures in 2014, the online NO<sub>x</sub>, SO<sub>2</sub>, dust and CO measuring devices on flues were renewed along with their software and reinforcements were made to measurement platforms and points.

Continuous dust measurement devices, which had been in use at flues of Erdemir Lime Plants No 3 and 4 since 2006, were replaced by new "Wet Stack" type devices conforming to wet stack conditions. The devices are the first dust devices ever used in flues of lime plants in Turkey.

**3.6** Supply Chain Management

Erdemir integrates its philosophy of sustainability and environmental protection approach with all services oriented towards human and environment.

During environmental analyses on the supply chain, plans were made on the more extensive evaluation of the supply chain with the Life Cycle Assessment within environmental objectives for the year 2015.

Material Safety Data Sheets are obtained from suppliers to identify, assess and control the risks related to the use of the chemicals purchased; and the staff is trained accordingly. Along with the inspection of chemicals, the compliance of suppliers with the Environmental Regulation is also assessed.

# 3.7

## Biodiversity

Biodiversity is a field of sustainability, which any company having found a guiding impact area within global economy and possessing the potential to create this area for itself certainly has an impact upon; it is a concern of environmental management which the companies performing activity on the production line should especially focus on.

Any company having environmental impacts has to identify and prioritize the areas with high biodiversity value in protected environments and other areas as well as their impact areas. Also, it is of high importance that notable impacts of activities performed, products manufactured and services provided during the production process on protected environments and other areas with high biodiversity value are identified. Especially the companies having a considerable production volume and utilizing natural resources as raw materials at production phases should focus on the target of protecting the habitats, or animals in the danger of extinction or included in the national or international red list of threatened species, which is of utmost significance in terms of sustainability approaches of companies.

Aiming at underscoring the biodiversity theme at all of its companies as a remarkable concern under the title of sustainability, Erdemir Group primarily targets multidimensional monitoring of its environmental impacts, protection of the environment and organization of remediation schemes through risk assessment and prevention activities to be performed in frame of the environmental management system.

In line with this approach and objective, Erdemir planted 1681 trees in total in 2014 in addition to the 13 thousand trees within the plant site, nearly 14 thousand in Goztepe and Baglik areas and 35 thousand trees in Kizilcapinar area; the plantation included 100 mature trees at a height of 3 meters and 2000 ornamental plants between heights of 30 to 100 cm.



Erdemir has been planning to implement the **Biodiversity Inventory** by 2015, in frame of which it aims at improving living spaces with the main theme of the protection of the regional environment and the focus on the protection of biodiversity. Assuming a role as an **active leader** in environmental activities in habitats where Erdemir facilities are located, the Group has been planning to support current and future practices in parallel to the activities to be developed in collaboration with executives of the enterprises and an academic committee.

Acting from the mission of active leadership, Erdemir Group will contribute to the constitution of **“biodiversity inventory”** in areas where its enterprises are located.

With a view to shape and improve a healthy sense of environment in the society with a number of planned activities, Erdemir Group will continue to attach utmost importance to the environmental management, which is one of the main branches of sustainability approach.

# Climate Change 3.8

Erdemir calculates CO<sub>2</sub> emission rates by taking into account C content of all raw materials and fuel and monitors reductions in CO<sub>2</sub> emissions in line with the energy reduction targets determined every year.

Adopting a proactive approach when preparing the feasibility reports of new investments, Erdemir assesses the amounts of CO<sub>2</sub> that investments will cause or minimize. Erdemir also evaluates all national and international developments on climate change, CO<sub>2</sub> emissions and CO<sub>2</sub> amounts reducing energy efficiency in the context of Environment Management Process Group and Sustainable Chief Officer reports all these subjects to the CEO.

# 3.9

## Energy Management

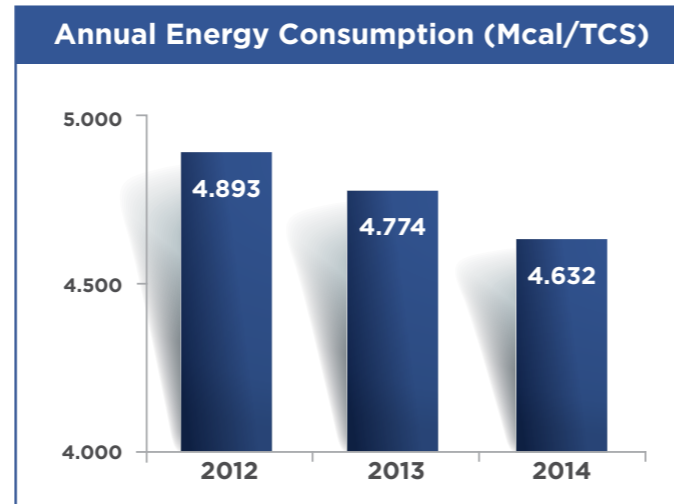
Using the energy consumed per ton of crude steel manufactured (Mcal/ton crude steel) as an indicator of energy efficiency since 1982, Erdemir reduced specific energy consumption by 44% with structural and operational improvements. Implementing Energy Management System activities in a systematic way since the date of its establishment and having launched the Energy Management Unit in 1995, Erdemir easily adapted to the requirements of the "Energy Efficiency Law" issued in 2007.

In this frame, Erdemir became the first company to obtain TS EN 16001 certificate in 2011 and successfully implemented ISO 50001 in 2013.

Increase in production directly affects energy consumption and emission values. Therefore, Erdemir's energy management activities concentrate on performing production with less consumption of energy. All efficiency activities performed mitigate environmental impacts while creating a positive impact on profitability.

Despite having performed a higher level of production by 5,1% in 2014 compared to the previous year, Erdemir reduced the amount of consumed energy by 1.9% according to the tons of oil equivalent.

Moreover, Erdemir itself produces a considerable portion of the energy it consumes. The most important energy item of Erdemir is coke gas, which is the by-product of coal and is also consumed as energy in Blast Furnace and Steel Plant processes where Blast Furnace and OG gases are released. A major portion of these byproduct gases are used in steam production at the Power Station; the steam produced generates electric power through combustion air for the Blast Furnaces. Thus, considerable savings are made on the purchase of electric power and natural gas.



### Energy Efficiency Projects

Energy Efficiency Projects have a significant impact on the financial performance of Erdemir with the savings they provide. While energy consumption constitutes a remarkable portion of the group's expenses, each saving on energy consumption increases profitability.

The fundamental principles of Erdemir's Energy policy are as follows:

- Implementing technological innovations that provide superior energy efficiency.
- Taking the utmost benefit from by-product gases and waste at temperatures that comes out during the production process.
- Minimizing the energy losses by systematic measurement and monitoring.

To meet needs of the fundamentals of our policy, energy targets given in the following graph is defined and monitored systematically.

### Power Plant Waste Heat Boiler External Combustion Plant

The External Combustion Plant, at which the Cogeneration Plant Waste Heat Boiler #1 is planned to continue steam production, was commissioned on the 27<sup>th</sup> of April 2014.

Intended to serve also for the use as fuel of surplus consumption blast-furnace gases, the plant is comprised of combustion and cooling chamber fan, a combustion chamber burner system, hot gas-air mixer, gas channels, and waste heat boiler connections.

The plant, which can be described as an innovation project as it is the first in Turkey and limited in number worldwide, was tailored specific to the project, taking account of existing process conditions. The burner system along with port valves and automation systems were the only components procured from external sources, while the design of all other parts was carried out by Erdemir. Similarly Erdemir's workmanship and local opportunities were employed during production and assembly.

The plant created energy and CO<sub>2</sub> savings.

## Environmental Awareness-Raising Activities

# 3.10

Raising awareness of employees helps them play an active role in improving Erdemir's environmental performance. Employees of any level are provided with trainings on sorting and collection of wastes, training programmes on global warming and climate change, natural disasters induced by global warming, major industrial accidents, etc. and trainings on Erdemir Environmental Management System, recycling of wastes, savings on water and energy, so that they become able to internalize the notion of environmental protection. Waste collection systematics developed for sorting and collection of wastes as a result of such trainings reveal the added value of trainings and the interest of our employees in the subject.

To raise awareness of the public, Erdemir's environmental engineers give environmental trainings at the schools in the district on the occasion of the World Environment Day, which is celebrated every year on 5 June.





4.



# **SOCIAL PERFORMANCE**



On the way to the achievement of its objective to become a world-class company, Erdemir considers its employees as the key asset.

As already indicated in the human resources policy of Erdemir, the key factor beneath the successful performance of Erdemir is a human resources management which allows employment of well qualified employees who are competent to help achieve the corporate vision, fulfills their needs for training beginning from the date when they are employed and throughout their entire professional lives, providing them with the opportunity to reveal their innovative and creative ideas.

The fundamental principles of the Human Resources Policy of Erdemir Group involve:

- adopting the vision, mission and values of Erdemir Group,
- creating an innovative, creative and reliable corporate culture,
- contributing to individual and professional development of its employees and transforming the potential into productivity.

#### Employee Profile

TYPE OF DATA	DATA
<b>Number of Employees</b>	
Total Number of Company Employees	6.454
Total Number of Subcontractor/ Contractor Employees	1.517
Total Labour	7.971
<b>Number of Company Employees by Gender</b>	
Number of Female Employees	417
Female Employee Rate	6.5
Number of Male Employees	6.037
Male Employee Rate	93.5
Number of Executives	348
Number of Female Executives	61
Female Executive Rate	17.5

#### Personnel's Training and Development Activities

Erdemir Group Academy, uniting all training and development functions of 7 group companies, was launched by Erdemir Group. Conforming to the corporate vision and the Group's objective to "become a world-class company" by 2020 and aiming at supporting qualified manpower, the Academy is committed to sustainable achievement and continuity of development.

Believing that one of the key components of change is training, Erdemir Group has been planning to provide its employees with access to its training and development programmes within the body of "Erdemir Group Academy", which will create the difference in business processes and personal development of employees. Implemented to foster managerial, personal and professional development of all employees of the Group, the Academy aspires to transform development into corporate culture. Hosting numerous trainings with varying themes including corporate orientation, career development, leadership and skill development, personal development, technology-based trainings, and project-based special trainings, the Academy will serve to help employees positively welcome changes and work in harmony with each other. Acknowledging that human resource is among the key elements making difference in competition, Erdemir Group will implement projects fostering development of qualified man power by means of the activities of Erdemir Group Academy.

In frame of the "**Executive Development Training**" aiming at improving management and leadership skills of middle level and top level executives, a number of training workshops and Follow-up Programmes were organized in 2014, including Self-Management, Team Management, Opportunity Management, Effective Performance Dialogues, Leadership, Effective Speech Methods, and Professionalization in Business Presentations. These training programmes were attended by 1439 executives in 2014 and organized for 12997 man-hours in total.

"**Talent Group Management Project**" focuses on development of talented employees, establishment of the balance between work and private life and improvement of their performance. A total of 310 employees participated in training sessions in 2014, which were provided on various topics such as Stress Management, Conflict Management, Emotional Management, Motivation of Teams and Individuals, Improvement of Performance, Time Management, and Positive Psychology. The project will be continued in the following years with new training programmes included depending on the need.

Additionally, a 1-day workshop was organized in 2014 for 50 **Internal Trainers** to provide trainings by field of specialization.

Moreover, trainings on **“Code of Ethics”**, which were attended by all white collar employees, were completed.

In scope of the **“Design of Experiments Project”** directly contributing to efficiency efforts, the training on **“Analysis of Statistical Data”** was organized with 65 trainees for 5 periods. Improvement projects were put into practice in line with the information acquired from this training.

As the Regulation on Procedures and Principles of **Occupational Health and Safety Trainings** for Employees under the Labour Code no 6331 stipulated that Occupational Health and Safety Trainings must be arranged for minimum 16 hours at Very Dangerous Workplaces, all employees at Erdemir were provided with trainings on the Main Topics (General Topics, Health and Technical Matters) specified by the Ministry of Labour and Social Security. Occupational Health and Safety Trainings at Erdemir are provided for not only employees but also contractor companies before their operations within the site. In 2014, a total of 188.427 man-hour training was held by experts at Erdemir where 29 Occupational Safety experts are actively employed.

### **Talent Management and Succession Planning**

Determining the talent management strategy for discovering talented employees within the Group, facilitating transfers of position between group companies and supporting development of such employees, Erdemir Group has initiated advanced practices in talent selection, assessment and development processes.

### **Erdemir Improvement Teams**

As one of the most outstanding reflections of Erdemir’s Continuous Improvement culture, Erdemir’s Improvement Teams (ERIT) practice has been successfully ongoing since 2001. In frame of ERIT activities, development and improvement are assured through participation of all employees of Erdemir at any level in various fields such as environment, efficiency, occupational safety, customer satisfaction, quality, and employee satisfaction. Teams consisting of maximum 8 persons are formed by blue and white collar employees. After completing their activities with the coordination of Operational Excellence Directorate, the teams make a presentation to employees and executives of the units on the improvements they have implemented. ERITs which display outstanding performance make their presentations at the platforms attended by the General Manager and top executives in different periods of the year.

The yield which could be estimated on the improvements in scope of ERIT activities for the year 2014 amounted to nearly 7,1 million USD / year. Moreover, a yield of 1,3 million USD/ year was obtained in scope of Design of Experiments activities, which are among the most remarkable techniques of 6 sigma methodology.

Erdemir Group won second award in the Big Enterprise Process Improvement Category among 103 projects with its “Optimization of Formability Parameters in 6513 Grade Steels Project with Design of Experiments (DoE) technique”, within the scope of Productivity Project Awards held by Turkish Ministry of Science, Industry and Technology.



## Social Relations

# 4.2

Since the very date of its establishment, Erdemir has played a role in the solution of local problems while creating value for the national industry and economy with its production, profitability, direct and indirect employment opportunities it has provided and taxes it has paid. In order to enhance the living standards of the society, to contribute to social development and to meet social expectations, Erdemir has been carrying out social contribution activities for the entire country, primarily focusing on its immediate vicinity.

Such activities are determined by having regard to results of research on social perceptions, data obtained from researches on corporate reputation, and social needs. Accordingly, Erdemir carried out a Research on Corporate Reputation in 2014 with a view to identify perceptions of its stakeholders and their improvement areas on basis of managerial criteria, communication and relationship criteria and social responsibility criteria, and to understand their expectations. The research which was performed in Eregli region, the location of Erdemir’s activities, and covered a total of 12 stakeholders addressed opinions and expectations of stakeholders in three categories, which include the Residents of Eregli, Local Governments/ Bureaucrats and Local Media. Other stakeholders in scope of the research comprise Mainstream Media, University Students, Academicians, Non-Governmental Organizations/ Professional Organizations, Erdemir and Isdemir employees, Bureaucrats/ Public Bodies, Business world, General Public in Turkey and Residents of Iskenderun.

Some of the social contribution activities realized by Erdemir so far are listed as follows:

### **4.2.1 Contribution to Education**

Our country has a young population and we give priority to educational activities to help raising our children as self-confident individuals in the modern world who can stand on their own foot and carry the country forward. Students are preparing for the future at the 9 schools Erdemir have built and transferred to the Ministry of National Education for this purpose. Our Group also meets demands of nearby schools for technical equipment, maintenance-repair assistance and educational materials and helps children continue their education in more favorable physical conditions. Erdemir also covers needs for electricity, water and heating at various schools in Eregli. While providing the youth with the opportunity to further develop themselves through annual internship schemes for high school and university level students, Erdemir also supports education in different fields and young skills through miscellaneous competitions. In this frame, Erdemir organizes National Steel Sculpture Competitions themed “Steel and Life” for the students of universities, in collaboration with Mimar Sinan University of Fine Arts, in order to draw attention to the



existence of steel in our life through art, support young sculptors and contribute to art education. The competition will be planned in 2015.

In 2014, priority was given to activities contributing to development of educational opportunities. In this frame, Erdemir met the requirements for electricity, water and heating at various school buildings located near the factory area as well as fulfilling demands of local educational institutions for technical equipment, maintenance & repair and educational materials and supporting children to ensure them to continue their education under better physical conditions. In cooperation with the District Directorate of Education in Kdz. Eregli, Erdemir supplied smart boards, projectors and laptop computers to 10 village schools in the district.



Implementing exemplary practices in field of occupational safety and intending to share its knowledge for the benefit of the society, Erdemir has been sharing its experiences in the field with young individuals preparing for the future business life, with a view to help them raise their awareness on occupational safety in the process of training. Accordingly, 330 students were trained by Class A Occupational Safety Specialists of Erdemir on occupational safety at vocational high schools in Eregli in 2014.

The Mathematics Contests between High Schools, which were organized by OYAK Group companies between the years 2007- 2012 in the provinces where they perform activity, have recently been organized in Zonguldak by Erdemir. Additionally, a photograph

competition themed “Steel and Life” was organized in 2008 and a sculpting competition in 2005, both attended by university students. In 2013, Erdemir organized a trip for about 1000 students of secondary and high schools in Karadeniz Eregli, gathering them together in frame of the “Science in Society Project”, which was implemented by the Center for Science and Society, Middle East Technical University in order to introduce students to the gains of scientific thought and to enhance learning through experiments. With the intention to ensure wider adoption of e-learning and gather students together with new educational materials and learning methods in parallel to technological developments, Erdemir supplied online educational subscription to Erdemir Elementary School in 2008 and supported the Art, Science and Language Days, organized for the last two years by Eregli District Directorate of Education.

#### 4.2.2 Support For Cultural / Artistic Activities

Erdemir has been organizing children’s theatre for 5 years to introduce little children to drama, to support their intellectual and emotional development and to help them develop an aesthetic taste and sense and socialize through art in Eregli, which is actually destitute of theatre facilities. In the year 2014, 1.000 children watched the play “Pinocchio” and met the magic world of drama during the event which was organized for April 23, National Sovereignty and Children’s Day, and which later became a traditional theatre festival.

#### 4.2.3 Support For Raising Healthy Generations

There have been various examples to Erdemir’s efforts in this field, including dental and health screening at village schools in Eregli in scope of the project carried out under the motto of “sturdy as steel”, improvement of the physical conditions and medical equipment of the existing healthcare institutions in the vicinity of Eregli, installation of an automation system at the hospitals in the region, construction of 2 infirmaries in the vicinity of Eregli, and donations to our disabled citizens to enable them to play an active role in the social life, including battery wheelchairs, hearing aids, etc.. In order to enhance living standards of disabled individuals, to reduce elements isolating them from an active social life and to create positive changes in their lives, Erdemir also supports non-governmental organizations performing activity for the disabled. For this purpose, 10 battery-powered wheelchairs were purchased in 2014, and they were donated to Kdz Eregli Association of the Physically Disabled so as to be delivered to individuals in need.



Acting on basis of the principle that every accident is preventable, Erdemir operates with the objective of accident-free production, ensures a healthy and safe working environment for its personnel and provides them with personal protective equipment that meets world standards. Being well aware of the importance of employee participation in creating and maintaining a culture of safety that will realize accident-free production, Erdemir has been supporting its employees continually and systematically through OHS trainings, spending efforts to boost awareness in this field. One of the main factors behind the Erdemir's success as a whole is the importance it assigns to its employees' health and safety and its successful performance consistently improving in the field of OHS.

The fundamental principles of Erdemir's OHS policy, which involves the objective of accident-free production, are as follows:

- To eliminate accidents in the production of steel by implementing risk management,
- To protect the health of employees by providing them with safe work environments,
- To ensure that the employees are devoted to a culture of sustainable safety.

19 Engineers, who are specially selected for purpose of improving Occupational Safety performance at the operating units and adopting the systematic work as "business philosophy", perform duty with the title of "Unit Occupational Safety Engineers" in the operational departments.

With the mentioned personnel, 27 engineers having Class A Certified Occupational Safety Specialists in Erdemir according to the Regulation.

OHS committee meetings as well as unit OHS committee and sub-committee meetings organized periodically at Erdemir in frame of the legislation address OHS performance, improvement requirements and opportunities in a systematic manner.

#### **An OHS approach based on systematic and continual improvement**

As the first company in Turkish steel sector to hold the OHSAS 18001 Occupational Health and Safety Management System Certificate, Erdemir ensures the continuity and development of the systems with the activities it has been carrying out since 2004, and continuing to document its success through the annual audits carried out by Turkish Standards Institute.

In 2014, a total of 22.578 trainees including employees and interns of Erdemir and the Subcontractor were trained on various topics including "general, medical and technical matters", "certified first aid", "protection against radiation", "manual load lifting and handling", "personal protective equipment" and "rigging".

Erdemir, being a member of Worldsteel Safety and Health Committee (SHCO), shared the improvement study titled "Disciplining of Works by Impact on Hard Surfaces" at the committee meeting held in Spain between 8-10 September 2014

#### **4.2.4 Cooperation With Public Institutions And Organizations**

Erdemir Group companies cooperate with public institutions and organizations to help solving local problems and improving local opportunities, also providing the support that eases the delivery of services for these institutions. Additionally, they organize conferences and seminars in cooperation with various Foundations, Chambers and Associations, contribute to university events, organize vocational training courses in cooperation with various associations, and; provide educational materials for the Public Education Centre.

#### **4.2.5 Voluntary Participation Of Employees And Other Social Responsibility Activities**

Erdemir has been carrying out numerous activities to support education, culture/art and healthcare in addition to activities that help improving the quality of social life and charities. The employees have shown record breaking attendance in blood donation campaigns and there are ongoing activities for the supply of food, clothing and fuel aid to those who are in need. Erdemir provided food packages to 2.600 families in 2014. The number of families supplied with food packages within the last 5 years by Erdemir has reached nearly 10 thousand. Erdemir also organizes Circumcision Feast for the children of disadvantaged families as well as the children of its own personnel every year in Eregli. A total of 85 children benefited from the Traditional Circumcision Feast in 2014, bringing the number of children to have benefited from the feast in the last five years to 696.

Erdemir Group encourages employees to take active duty in associations working for the benefit of the society while contributing to social development through corporate social responsibility activities.

# 4.4

## Awards

Erdemir won the third place in the “Large Scale Company Energy Efficiency Application Project” category at the 14th Environment and Energy Awards organized by İstanbul Chamber of Industry (İCOI) in 2014. Erdemir was awarded with prizes with 3 energy efficiency projects at Environment and Energy Awards, organized every year by İCOI to promote good environmental practices and any beneficial steps to be taken by our industry.



## Sharing our Knowledge and Experience

Mr. Ali PANDIR, the Chairman of BoD of Erdemir, gave information about the protective environmental investments and corporate vision of Erdemir at II. İstanbul Carbon Summit, which was organized by the Sustainable Production and Consumption Association (SPCA) and the Energy Efficiency Association (EEA) with the support by Ministries of Environment and Urban Planning, Energy and Natural Resources, and Science, Industry and Technology as well as miscellaneous public institutions and organizations.



