

EPTA SUSTAINABILITY REPORT

Eskişehir-2023

Effective, Environmental and
Sustainable Manufacturing

Personnel Focused Protective Work
Security

Technical Capacity

Active Marketing and Sales

-ABOUT THE REPORT

3

-A MESSAGE FROM THE GENERAL MANAGER

4

-ABOUT EPTA

5

-MISSION,VISION AND QUALITY POLICY	5-6
-INSTITUTIONAL STRUCTURE AND MANAGEMENT.....	7
-HISTORY	8-9
-BUSINESS FIELDS AND PRODUCTS.....	10-11-12
-NATIONAL AND INTERNATIONAL STAKEHOLDERS.....	13
-ECONOMICAL CONTRIBUTION AND PERFORMANCE.....	14

-CORPORATE GOVERNANCE

15

-ETHICAL PRINCIPLES.....	15
-COMPATIBILITY TO LAW AND COMPANY POLICIES.....	16

-EPTA'S ENVIRONMENTAL SUSTAINABILITY ACTIVITIES

17

-EFFECTIVE, ENVIRONMENTAL AND SUSTAINABLE MANUFACTURING.....	18-19
-EPTA'S SUSTAINABILITY BRANCH.....	20-21-22-23
-SOCIAL RESPONSIBILITY PROJECTS.....	24-25-26
-SUSTAINABILITY GOALS.....	27-28-29
-RESPONSIBLE ENVIRONMENT MANAGEMENT.....	30
-EPTA'S STRUGGLE AND COMPATIBILITY WITH CLIMATE CHANGE.....	31-32-33-34
-CORPORATE CARBON FOOTPRINT MANAGEMENT.....	35-36-37-38-39
-RENEWABLE ENERGY (SES).....	40-41
-ENERGY EFFICIENCY.....	42-43-44
-WASTE REDUCTION AND RECYCLING.....	45-46-47-48
-SUSTAINABLE SUPPLY CHAIN.....	49
-WATER CONSUMPTION.....	50-51-52
-PRODUCT LIFE CYCLE VALUES.....	53

- EPTA'S SOCIAL SUSTAINABILITY ACTIVITES

54

-SOCIAL SUSTAINABILITY.....	55
-EMPLOYMENT POLICY.....	56
-EMPLOYEE PROFILE.....	57-58
-WORK FORCE AND WORK ETHICS.....	59
-DEVELOPING SOCIAL RELATIONS.....	60

-EPTA'S ECONOMICAL SUSTAINABILITY ACTIVITIES

61

-EPTA'S ECONOMICAL SUSTAINABILITY ACTIVITY CYCLE	62
-BASIC PRACTICES FOR ECONOMICAL SUSTAINABILITY	63
-PLANNING OF FINANCE AND INVESTMENT	64
-CYCLICAL ECONOMICS SUITABILITY	65

- RESOURCE EFFICIENCY

66

-GREEN PRODUCT DESIGN.....	67
-INNOVATION AND R&D	68
-CUSTOMER SATISFACTION.....	69-70
-NATIONAL AND INTERNATIONAL STAKEHOLDERS.....	71
-DATA SAFETY.....	72
-GRI STANDARDS.....	73-74-75-76-77-78-79-80
-CLOSURE.....	81

CONTENTS



Dear Stakeholders,

EPTA has been continuously developing since 1980, has achieved significant success in the businesses where it has been operating. It provides a variety of products and services to important companies in our country and in the world, especially in the cooling and automotive businesses. Our company has been continuing to operate with a business-oriented approach from the day it was founded, while also continuing to contribute to the country's economy by taking care of nature and human rights.

Many problems that arise globally today affect all countries. The contamination of nature due to malpractices and the cons it brings have reached a level that threatens people's lives, especially climate change. Thus, the necessity for sustainable use of limited world resources arises. Therefore, all activities need to take place in an environmentally conscious way to transmit a sustainable world to future generations.

Within this scope, sustainable development aims have been set out by the United Nations. Our company has also aimed to put forward a management approach that is compatible with these objectives. Thus, our company will take responsibility by carrying out various activities to protect our world and nature; strengthen society and transform life; intend to use all its experience and competence for sustainable development in all areas.

This report provides a summary of the activities planned and realized for all these purposes. As a result, both we are trying to fulfill our responsibilities and share developments in this field. We wish our activities would be useful for sustainable development; thank to everyone who has contributed to this process.

İlke AYDIN

EPTA Sustainability Branch Leader

INTRODUCTION

Dear Our Precious Stakeholders,

Today, It is understood that no further route can be taken with the current model of economics being implemented across the globe. Issues such as the global energy crisis, the supply of raw materials, global climate change warn us that we need to review our way of doing business.

For this reason, we should see the sustainability efforts as an opportunity to create value that have been on the agenda in recent years. Thus, we need to develop a model of life and economy built on reducing, reusing and recycling rather than taking, using and throwing away. By integrating this new model into our lifestyle, the way we do business, we need to ensure that our planet is a much more livable and sustainable place.

In this scope, EPTA has begun developing and implementing projects aimed at reducing carbon emissions beginning in 2023, by taking into account the values related to the institutional carbon footprint it began tracking in 2021-2022 by creating a Sustainability Unit. The 400-kW SES (Solar Energy System) project which was first set up in 2023, will continue its sustainability-based applications without interruption by implementing the Green Hydrogen Project of which its feasibility studies continue.

Based on data from the technical observation report at the beginning of 2023 on energy efficiency; in the same year, the energy efficiency of our electric motors, air compressors and electric source furnaces in our company was increased and reductions in both cost and carbon release amounts were achieved as a part of the KOSGEB Energy Efficiency Support Project. EPTA will continue its work towards green production alongside its employees, addressing issues of social and economic sustainability from a holistic perspective as well as environmental sustainability.

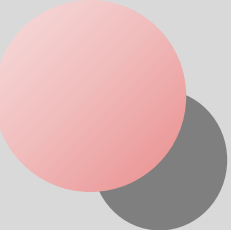
We will continue to serve the proliferation of awareness that the world is not only created for humans and that polar bears should not perish.

Best Regards...

A Message from the General Manager



Güven TERZİOĞLU
General Manager



MISSION, VISION AND OUR QUALITY POLICY

OUR MISSION

“To meet products that add value to people's lives with sustainable, innovative manufacturing technologies without compromising on high quality, performance and efficiency.”

OUR VISION

“Our goal is to be a leading organization in the metal and cable manufacturing industry by continuously improving the quality of our products using advanced technologies, our qualified human resource and environmentally sustainable manufacturing processes.”

OUR QUALITY POLICY

"EPTA, whose principles are honesty, trust, quality and discipline; with the principle of sustainable and environmentally friendly manufacturing that it holds, with the training and contribution of its employees, with lean manufacturing and continuous remediation practices, is to be a firm that "meets the needs and expectations of its customers with the highest quality products, respecting the community and the future."





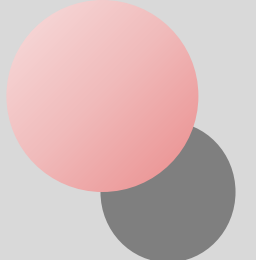
INSTITUTIONAL STRUCTURE AND MANAGEMENT

- ✓ Our understanding of corporate structure and management which is critical to the effectiveness and success of our company, provides a framework for how to manage the company, how to make decisions, and who carries which responsibilities.
- ✓ Working within this framework, our corporate structure and management ensure that our economic, social and environmental responsibilities are fulfilled while making the decisions necessary for our company to achieve its economic goals.
- ✓ Thus, our dynamic enterprise structure and management understanding can enhance the company's risk management and financial success while meeting our customers' sustainability-based quality product expectations.



ABOUT EPTA

EPTA's foundations were laid in 1980 in Eskişehir as the Arı Engineering Company. Our founding purpose is; raising the well-being and consciousness of our employees to levels of developed countries, being a model for our employees for having the awareness that they have a debt to contribute to the environment and the society in which they live, contributing to the economy of Eskişehir and our country, developing and implementing production models that do not harm the world we live on.

- 
- ✓ EPTA was officially established in 1986 as a two-partner limited liability company. However, the company has a history dating back to 1980. ARI engineering, which was established as a commitment and project firm this year, started with housing projects in Eskişehir.
 - ✓ A year later, EPTA made mid-tension and low-voltage projects of the ETI Biscuit plants, which were laid in the Eskişehir organised industrial zone, and also took the undertaking job. As a result, EPTA was introduced to industry through its experiences.
 - ✓ Besides this, ARI engineering has been involved in the high voltage line construction project of the Eczacıbaşı Karo Bozüyük facilities. In 1982, 4 transformer buildings and factory lighting jobs were taken and completed in the expansion project of the Arçelik refrigerator factory.
 - ✓ The acquisition of this work marked an important milestone for the founding of EPTA; it entered the industrial sector beginning from this year.
 - ✓ EPTA Electric Ltd. Şti. has developed his business with Arçelik since 1983. EPTA, which initiated and implemented the project for the production of lead cables used in compressor engines which had been imported at that time; then began to the production of shock loops used in the compressor engine, by delivering these products both to Turkey and the world and became a manufacturer.
 - ✓ EPTA realized its first export to the United States in 1994. In 2006, EPTA won a tender from EMERSON, a US global firm, and began exporting to the United States. EPTA, which moved to the Eskişehir Organised Industrial Zone (EOSB) in 2007, met EMBRACO which is also a global firm, in 2010 and has began exporting to its facilities in Europe beginning from 2011.
 - ✓ As a result of the development of its operations in 2019, EPTA moved to a large facility located in İmşehir, Eskişehir. EPTA continues to serve our country with a total of 192 white and blue collar personnel as of 2023.

HISTORY AND MILESTONES

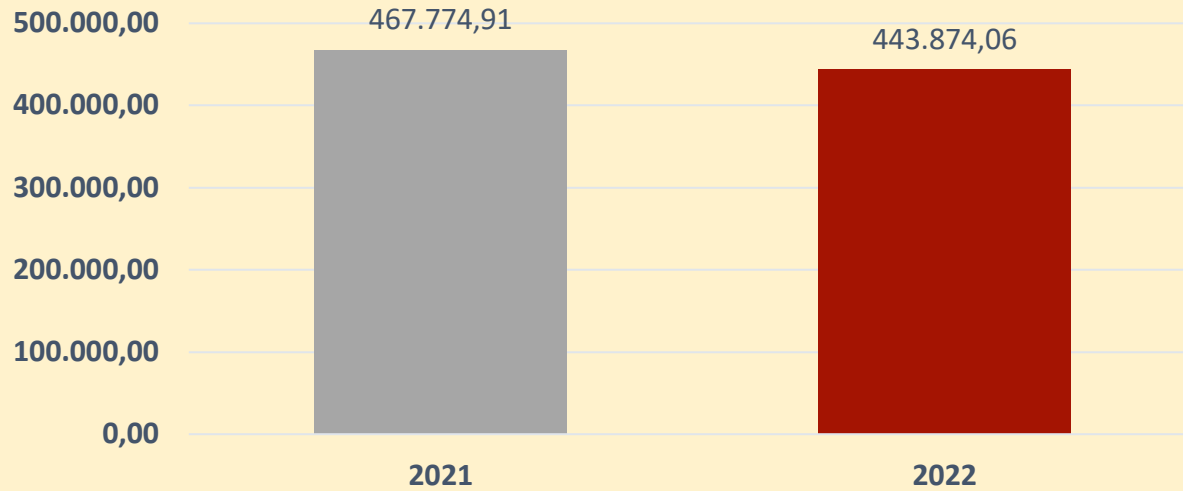
OUR BUSINESS FIELDS AND PRODUCTS 1

- ✓ As EPTA began its operation, it considered performing value-added production in the industry. Starting with this goal, it is to produce the parts imported by industry domestically in our country. EPTA's business fields are the production of lead cables and cooling pipes in cooling industry compressor engines.
- ✓ During the historical timeline, EPTA first began production of lead cables used in the compressor engines of the Arçelik compressor factory in 1983.

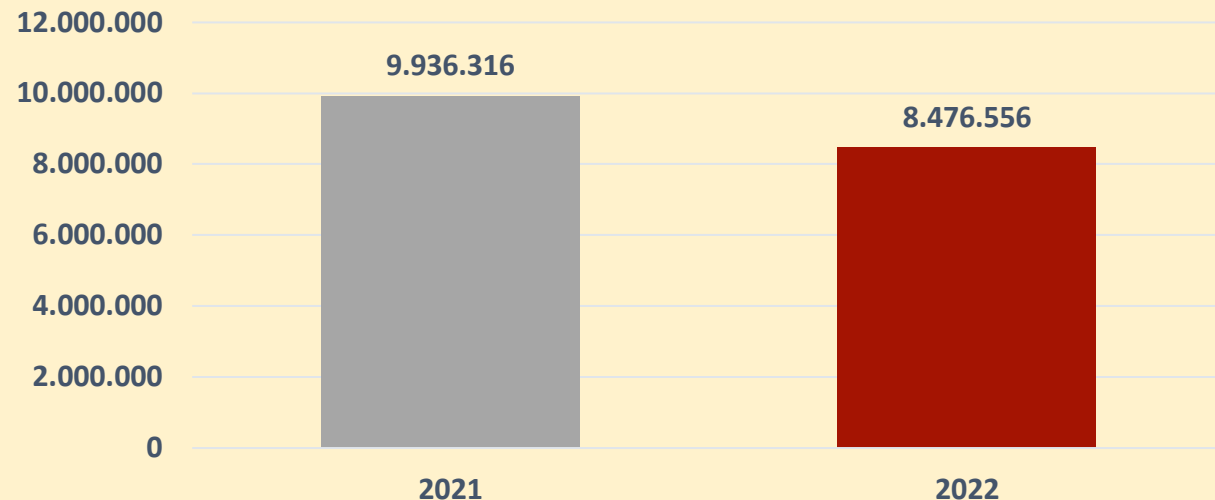
OUR BUSINESS FIELDS AND PRODUCTS 3

- ✓ Thanks to the brazing furnaces that are our own production, the contracted manufacturing began to be served to the automotive industry.
- ✓ EPTA had been the only company in Turkey that can do this brazing process in its own manufactured furnaces which can be done by a very small number of companies.
- ✓ The total amount of products produced in kg and in pieces per year is seen in Graph 1 and 2.
- ✓ Exports of our company, continues to grow.

Graph 1-Total Weight of Products Produced (kg)

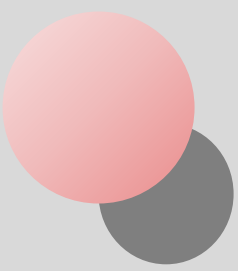


Graph 2-Total Quantity of Products Produced (piece)



OUR BUSINESS FIELDS AND PRODUCTS 2

- ✓ Our production process, which began in this way, has evolved over time; 100% of the cables used in the Arçelik compressor engines have begun to be manufactured at EPTA. After that, with the growth of this cooperation, the production process has continued with the products with tube which are used in compressor engines.
- ✓ Furthermore, EPTA began to manufacture special brazing furnaces for its plant, which are required in brazing processes technically used in cooling tubes from 1990 onwards. This non-sale furnaces were built to meet EPTA's own needs.



NATIONAL AND INTERNATIONAL STAKEHOLDERS

- ✓ EPTA is cooperating with its national and international stakeholders on sustainability while carrying out its activities. While our company has been trying to meet the expectations of the main industries on sustainability which our company works; also has been assisting our suppliers on sustainability, as well and has been expecting them to meet specific targets in this scope. Thus, our company has been contributing to the increase of awareness of sustainability within the supply chain.
- ✓ In this scope, it carefully evaluates customers' expectations and goals for sustainability and incorporates them into its internal processes. Customers with regard to sustainability-related activities are informed where necessary. The works about sustainability are also being conducted in partnership with customers.
- ✓ Suppliers are required to meet certain relevant requirements by closely monitoring their activities on sustainability. In this process, suppliers are not evaluated just within classic criteria; at the same time, its activities on sustainability are evaluated.
- ✓ In addition, the cooperation with public institutions is consolidated. The Ministry of Environment and Urbanization, Ministry of Industry, KOSGEB, Eskişehir Chamber of Industry, Eskişehir Metropolitan Municipality, Eskişehir Tepebaşı Municipality are contacted and our company has been benefited from various supports provided by Eskişehir Chamber of Industry on sustainability (counseling, education, information, etc.).

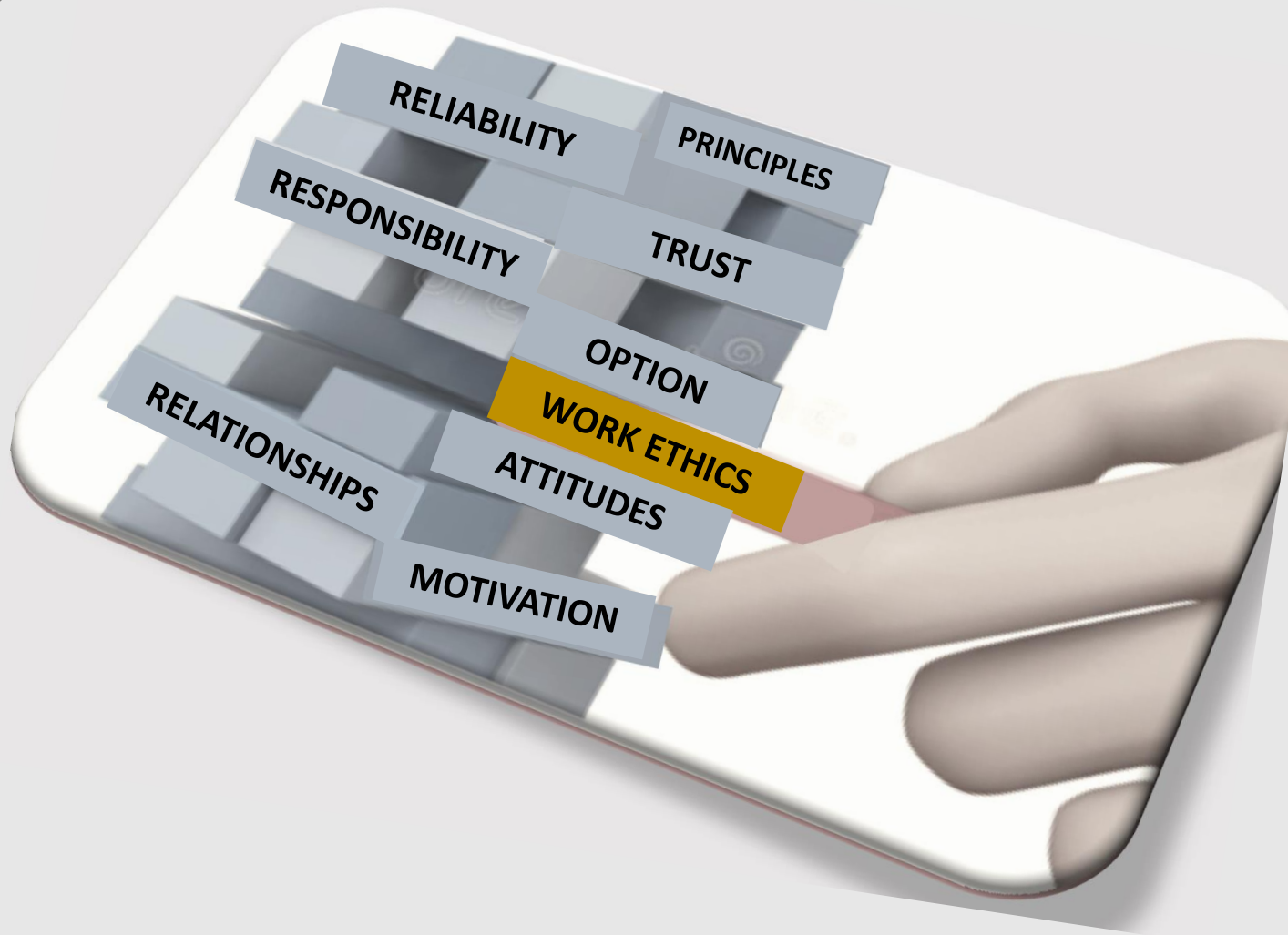
ECONOMICAL CONTRIBUTION AND PERFORMANCE

- ✓ EPTA contributes to the country's economy through its products and services to domestic and foreign companies as part of its activities. Our company's activities and economic contribution have increased over the years. Our company has worked in a number of ways, particularly in efficient use of resources, preventing waste.
- ✓ While sustainable development processes were not yet available, our company had become practicing its lean philosophy in the whole company. Although the philosophy of lean thought is one aspect of production; in other ways it aims to reduce the waste of resources (muda) and to use resources efficiently. In this respect, it also comes across as an important application for sustainable development.
- ✓ Our company's performance will not reveal no longer solely with classic indicators; will also reveal it in terms of sustainability. This will enable our company to move in a direction aimed at sustainable development. The introduction of sustainability as a benchmark in the performance of management processes also demonstrates our company's importance to sustainability.



ETHICAL PRINCIPLES

- ✓ EPTA has made it its principle to work in accordance with the ethical principles universally accepted within its activities.
- ✓ Within this scope, our company has added its ethical principles to contribute to sustainable development objectives.
- ✓ Especially, our company has taken an ethical approach to efficient use of resources and preventing waste.



COMPATIBILITY TO LAW AND COMPANY POLICIES

- ✓ Having established the principle of compliance with laws and company policies to itself, our company has achieved the purpose of fulfilling its responsibilities within the framework laid down by law by following current legislation while conducting all its operations.
- ✓ The company policies laid out play an important role while conducting our activities. For this reason, every employee is conscious that they have to work by taking into account the company policies.
- ✓ Company policies are being updated and developed in accordance with the new terms that will emerge. In this framework, contributions are made to sustainable development objectives and policies are also carried out in accordance with the European Green Deal.





Figure 1. The Cycle of Ecological ve Environmental Problems

EPTA'S ENVIRONMENTAL SUSTAINABILITY ACTIVITIES

- ***Effective, Environmental and Sustainable Manufacturing***

Today, because of the production, consumption and waste activities carried out as if the world's resources are unlimited which had been exceeding the planet's capacity; the effects of increasing and triggering global environmental problems on nature and human health/wellbeing are becoming unsustainable (Figure 1).

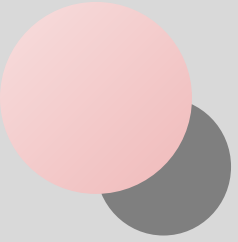


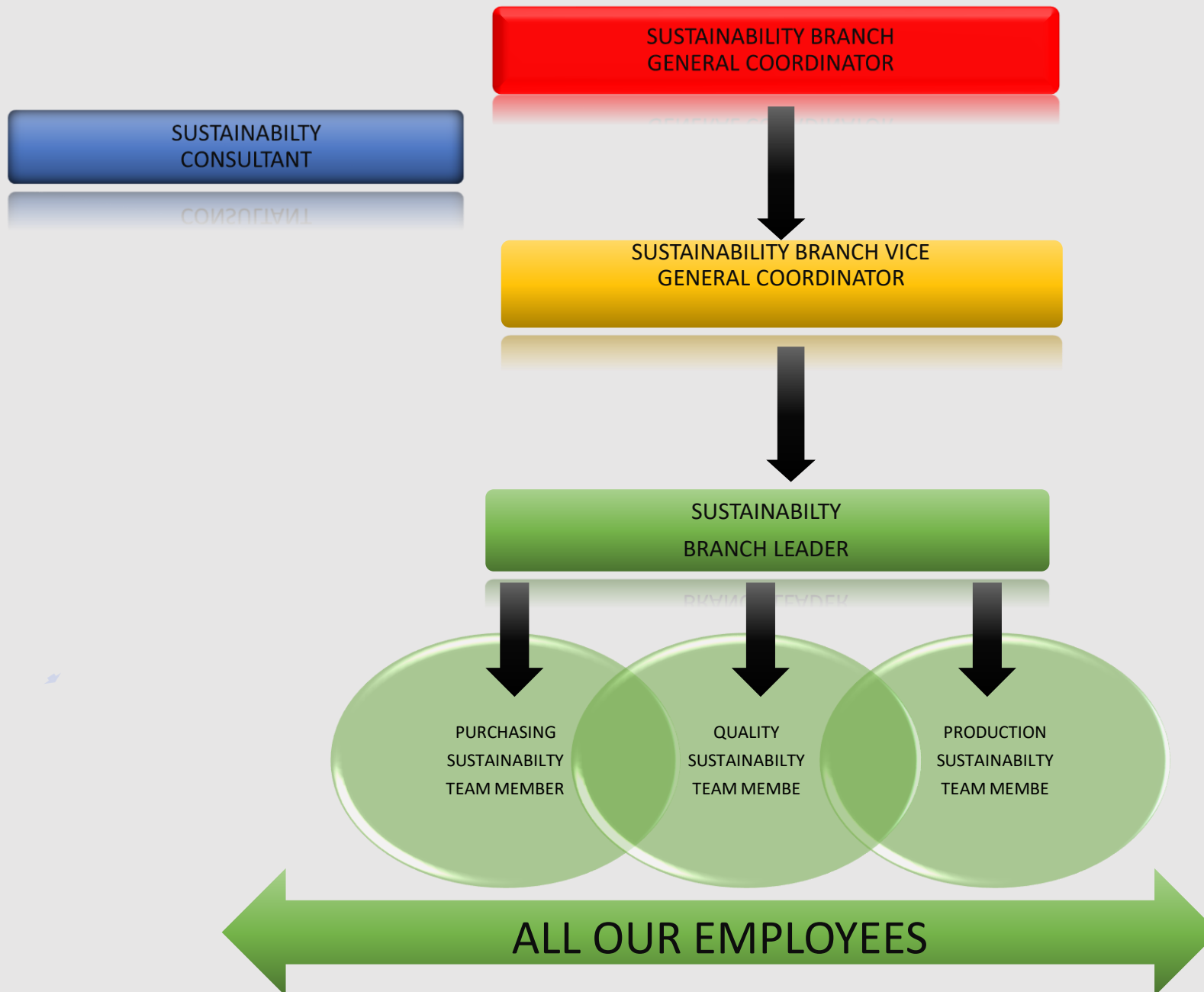
Figure 2. United Nations Global Sustainable Development Goals



Figure 3. Goals of EU Green Deal

○ **Effective, Environmental and Sustainable Manufacturing**

- ✓ Therefore, with the concept of sustainable development which was put forward by the United Nations, it is intended to be restored and gained to a healthy functioning the relationships that have reached a devastating extent between human culture and the living planet which are the world's two most complex systems.
- ✓ In accordance with all these developments; EPTA has adopted the United Nations strategies for the objectives of "Global Sustainability" and "EU Green Consensus" as a corporate policy for ensuring the continuity of society and nature (Figure 2 and 3).



- *EPTA Sustainability Branch*

- ✓ The necessary sustainable production steps are being taken depending on the decisions made by the **EPTA Sustainability Branch**, which have been established within the company to manage and carry out relevant activities for this process.



Figure 4. EPTA Sustainability Branch Meeting

- **EPTA Sustainability Branch**

- ✓ The necessary sustainable production steps are being taken depending on the decisions made by the **EPTA Sustainability Branch**, which have been established within the company to manage and carry out relevant activities for this process (Figure 4).



Figure 5. Work Safety Training for Our Employees



Figure 6. Sustainability Training for Our Employees

- **EPTA Sustainability and Work Safety Training**

- ✓ Additionally, it is aimed to provide an informed and responsive workforce by organizing awareness training programs for our employees for the work safety and sustainability practices that our company has adopted (Figures 5 and 6).

○ EPTA Sustainability and Work Safety Training

Subject: EPTA-Climate Friendly and Sustainable Manufacturing Blue Collar Information Meeting Assessment Report

TAG OF THE TRAINING

Training Coordinator: İlke AYDIN
(Sustainability Branch Leader-Industrial Engineer)

Lecturer: Prof. Dr. Cengiz TÜRE
(Sustainable Green Industry Consultant)

Place: EPTA Meeting Room

Date ve Time: 14th of February, 2023-
Tuesday- 9.30-11.00 (1-2-3-4-5-6. Groups as a whole)

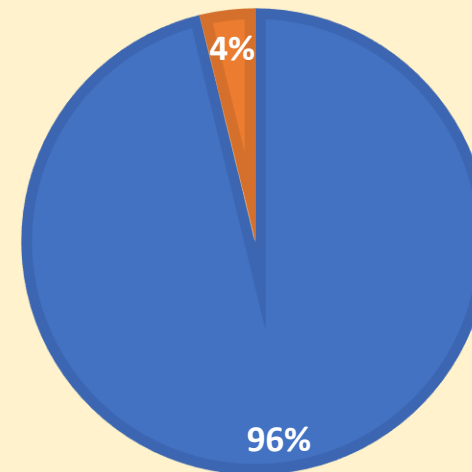
Attendance to the Meeting: 110

Attendance to the Test: 86

Content of the Training and Number of Questions: 20 right/wrong choice questions addressing the concept of sustainability, global environmental issues, the importance of understanding and tackling global warming/climate change, corporate carbon footprint and mitigation methods, and corporate sustainability.

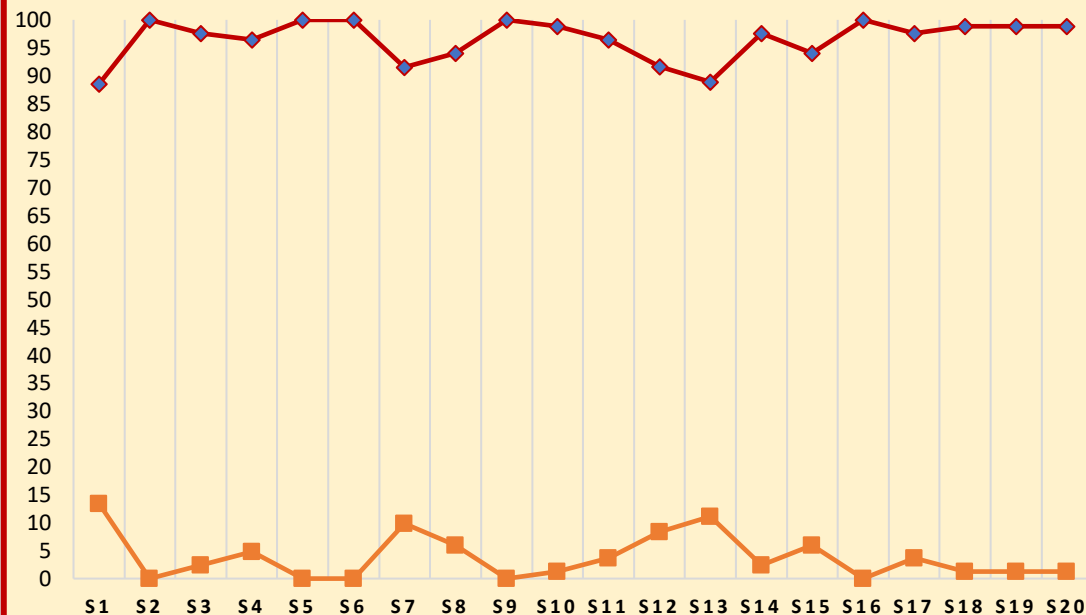
GRAPH 3- EPTA-CLIMATE FRIENDLY AND SUSTAINABLE MANUFACTURING BLUE COLLAR 1.,2.,3., 4.,5., 6TH GROUPS INFORMATION MEETING TOTAL ASSESSMENT / RIGHT-WRONG ANSWERS RATE PER QUESTION

■ Correctness Rate for Each Question
■ Wrong Rate for Each Question



GRAPH 4- EPTA-CLIMATE FRIENDLY AND SUSTAINABLE MANUFACTURING BLUE COLLAR 1,2,3,4,5,6TH GROUPS INFORMATION MEETING TOTAL ASSESSMENT/RIGHT-WRONG ANSWERS RATE

◆ Correctness Rate for Each Question ■ Wrong Rate for Each Question





○ *Social Responsibility Projects*

- ✓ Beside this, we continue to contribute to social sustainability through our social responsibility projects with various organizations as a company (Figure 7) .

Figure 7. *Business World Social Responsibility Project Against Domestic Violence*

- *Social Responsibility Projects*



Figure 8. *Business World 23rd of April Project*



Figure 9. Business World 29th of October Project

- *Social Responsibility Projects*

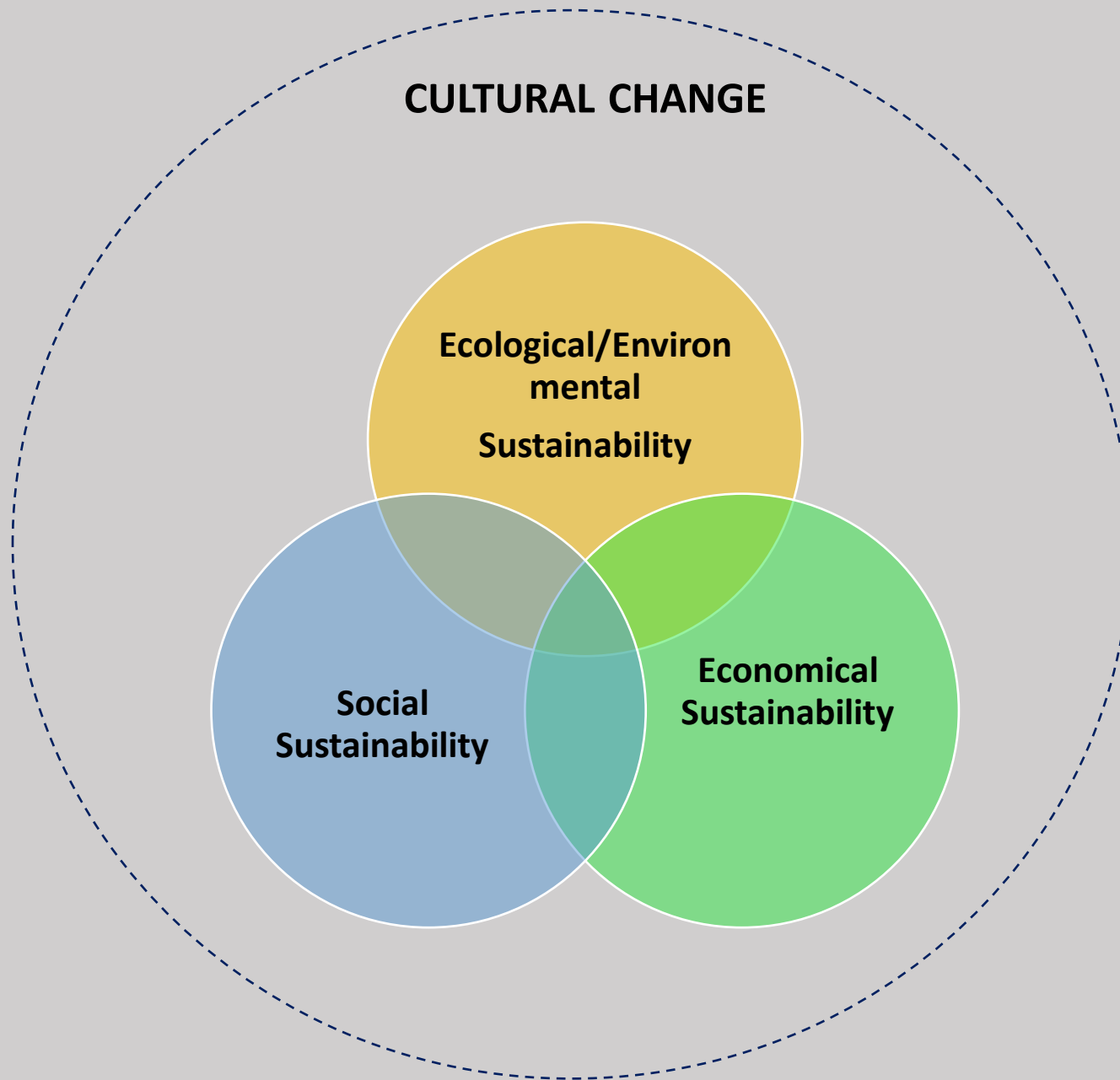


Figure 10. *The Basic Components of Global Sustainable Development*

○ **SUSTAINABILITY GOALS**

- ✓ In line with the principle of sustainability to "**leave no one behind**", necessary efforts are also being made for all our partners involved in our supply chain to commit and act on this issue.
- ✓ Also, high quality reliable product options based on continuous improvements are also provided for our customers who are sensitive and conscious of products manufactured in sustainable processes.
- ✓ EPTA, which gives necessary consideration to sustainable production from its employees to its suppliers, from its customers to society, not just today's needs; continues to adhere to the principles of "ecological, economic and social sustainability" with an understanding of production that also considers the needs of future generations for the livable world (Figure 10).

Table 1. EPTA Corporate Sustainability Targets



EPTA Corporate Sustainability Targets

Our company is committed to meet all expectations on the issues shown in Table 1 based on evidence, by implementing all universally accepted sustainability strategies.



Tedarikçi Adı:

EPTA ESKİŞEHİR METAL VE KABLO

Beyan Sonucu:

87.872 **MÜKEMMEL**

 **Denetim Sonucu ve Uygunsuzluklar:**

89.292 **MÜKEMMEL**

Denetleme Tamamlandı.

- **SUSTAINABILITY TARGETS**
- **DQS Assessment Results**

In this process, our enterprise capacity and practices for the sustainability goals set forth in Table 1 have been evaluated in the **PERFECT** category, with evidence-based auditing by **DQS**, an internationally accredited organization (Figure 11).

Figure 11. DQS Corporate Sustainability Assesment Result



RESPONSIBLE ENVIRONMENT MANAGEMENT

Under this title, activities in the areas of tackling climate change, energy management, water management and waste management under responsible environmental management were evaluated primarily. Our company has obtained the ISO 140001 Environmental Management System certificate by fulfilling these requirements (Figure 12).

Figure 12. ISO 140001 Environmental Management System Certificate

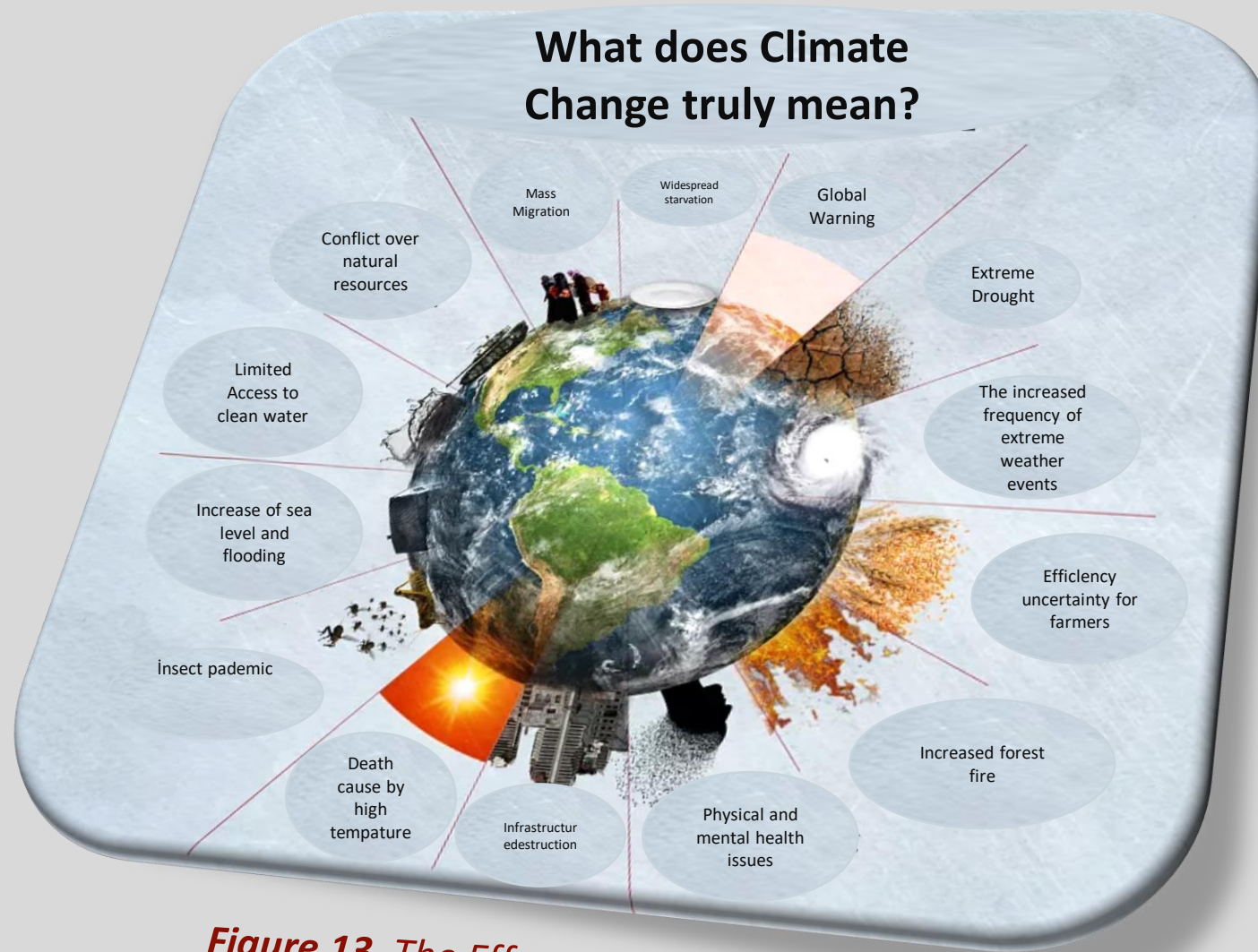


Figure 13. *The Effects of Climate Change*

○ **STRUGGLE AND COMPATIBILITY WITH CLIMATE CHANGE**

Today, one of the events affecting our world negatively is climate change. Climate change is not limited with changing some climatic characteristics; beyond that, it directly affects everyone's life (Figure 13). 'Climate change' or 'climate crisis' is a term used to describe global warming and climate change due to changes in the world's average temperature.

*Resource:

<https://tr.euronews.com/green/2022/11/06/iklim-degisikligi-nedir-etkileri-neler>.



Figure 14. Our Basic Strategy for Struggling with the Climate Crisis

STRUGGLE AND COMPATIBILITY WITH CLIMATE CHANGE

For climate-friendly and sustainable production, our company will struggle with climate-changing emission sources on one hand and also adapt to the effects of the climate crisis in a holistic way (Figure 14).

Table 2. Our Sustainability Based Corporate Activities and Targets



**STRUGGLE AND
COMPATIBILITY WITH
CLIMATE CHANGE**

The issues and aims of our company to support environmental sustainability and reduce its environmental impacts are outlined in Table 2.




TEŞEKKÜR BELGESİ

Epta Eskişehir Metal ve Kablo San. ve Tic. Ltd. Şti.

Firmanın "2021 Yılı Kurumsal Karbon Ayakizi",
Eskişehir Sanayi Odası Sürdürülebilir Yeşil Sanayi Birimi tarafından hesaplanmıştır.

Karbon emisyonunu azaltmaya yönelik çalışmalar yaparak; sanayimiz ve ülkemiz adına daha temiz bir doğa,
daha iyi bir gelecek oluşturmakta pay sahibi olduğunuz için teşekkür ederiz.


Celalettin KESİKBAŞ
Yönetim Kurulu Başkanı


Ömer BENLİ
Sürdürülebilir Yeşil Sanayi
Birim Koordinatörü



○ Corporate Carbon Footprint and Its Management

- ✓ The carbon footprint is a unit of measurement used to measure the amount of greenhouse gases an organization releases into the atmosphere as a result of its activities. These greenhouse gases cause global warming due to the greenhouse effect in the atmosphere, while also leading to climate change.
- ✓ Our company is committed to carrying out its work for a sustainable future, fulfilling its environmental responsibilities in calculating and reducing its carbon footprint. In this context, in collaboration with the Sustainable Green Industry Unit (ESO-SSIU) of Eskişehir Chamber of Industry and EPTA , the "Corporate Carbon Footprint Report" was prepared in accordance with the standards of 14064-1: 2006 for 2021.
- ✓ For this purpose, ESO-SSIU has issued a certificate of appreciation for its pioneering and cooperation (Figure 15).

Figure 15. The Certificate of Appreciation Presented by ESO-SSIU

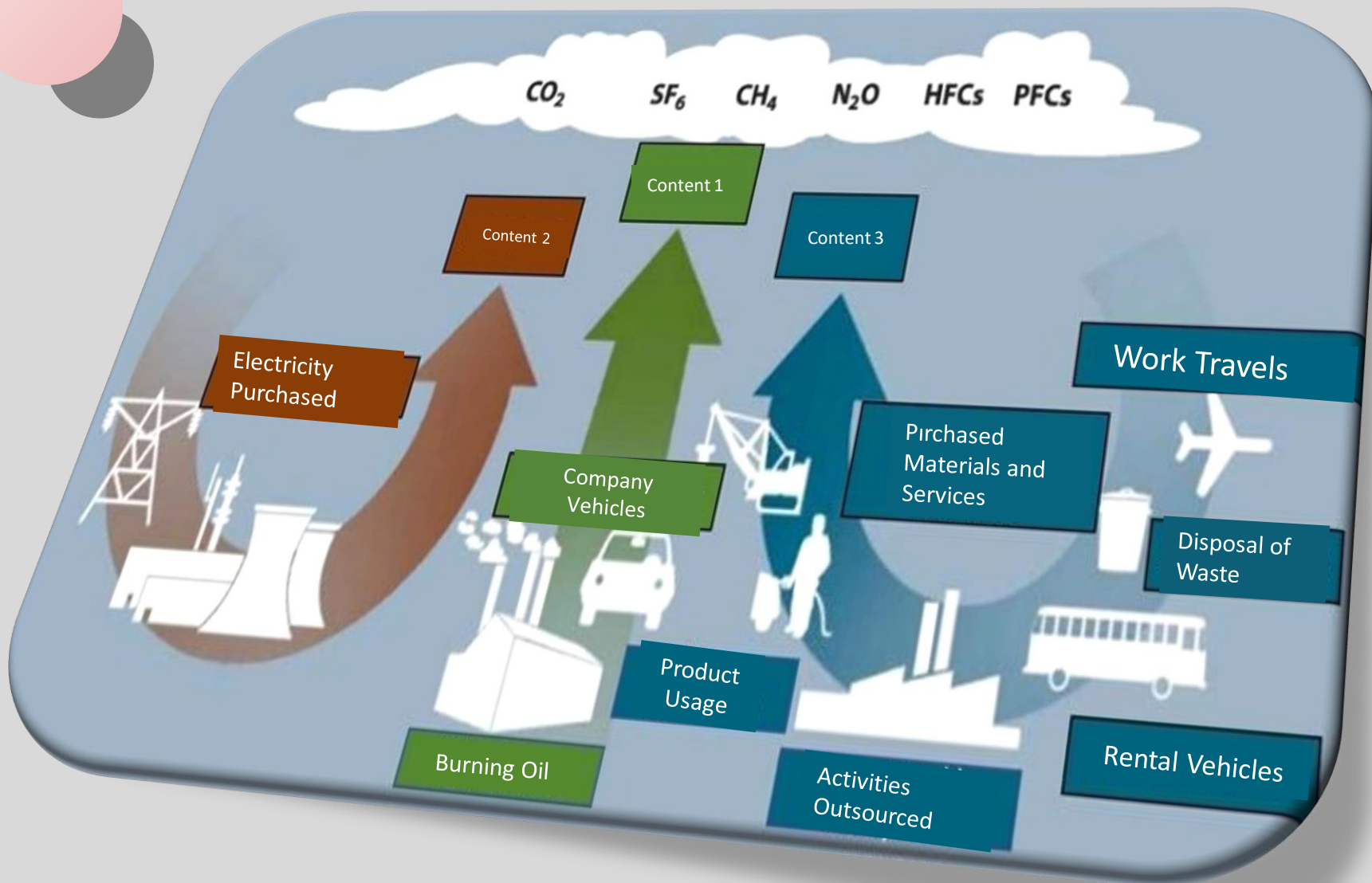


Figure 16. Overview of the Scope of Emissions

- **Corporate Carbon Footprint and Its Management**

Within this framework, organization-level emission sources for corporate carbon footprint calculations were performed within 3 scopes (Figure 16).



2022 Our
Corporate
Carbon Footprint

2021 Our
Corporate
Carbon Footprint

- *Corporate Carbon Footprint and Its Management*

Our corporate carbon footprint results prepared by our EPTA sustainability branch have been added to the report in full transparency.

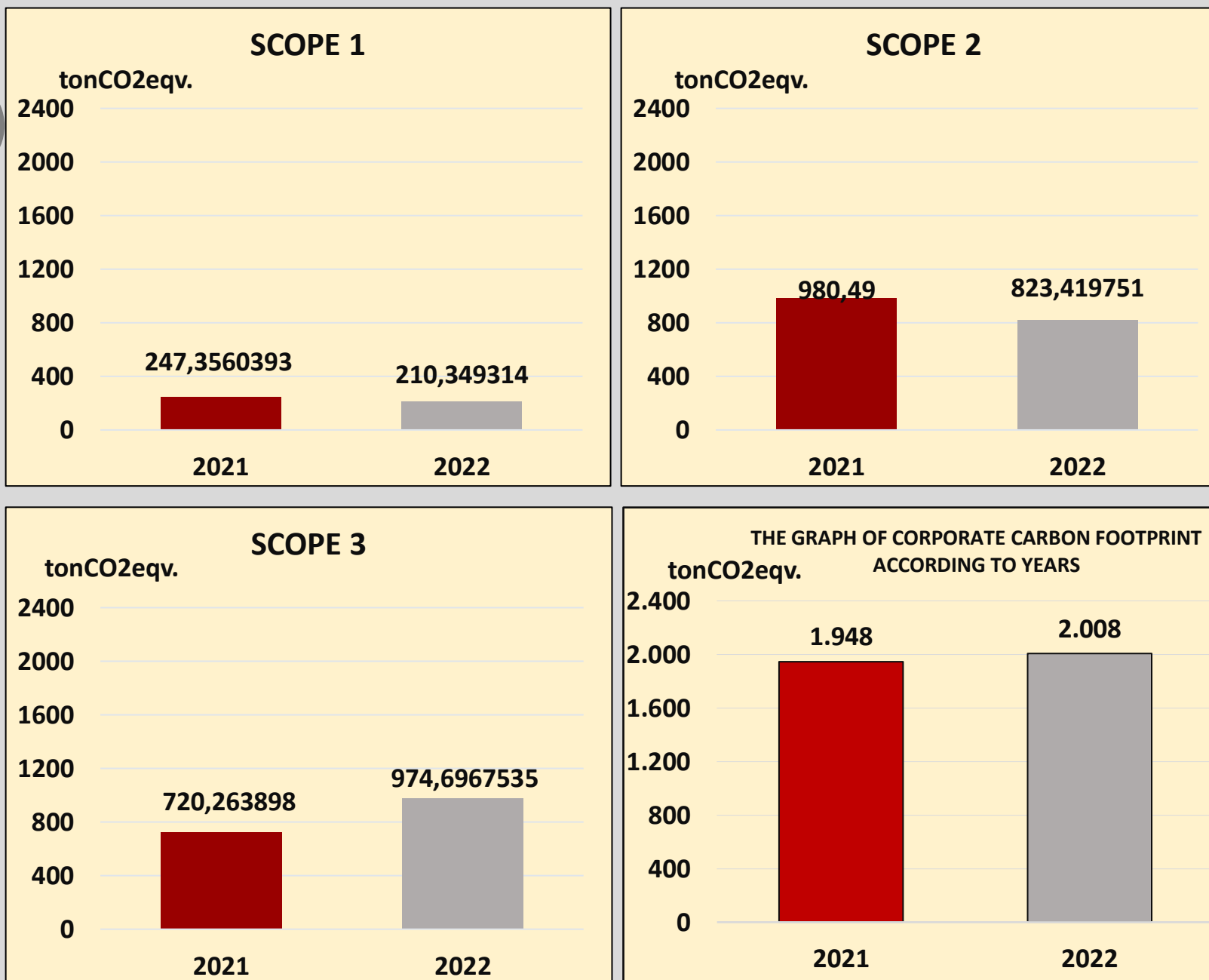
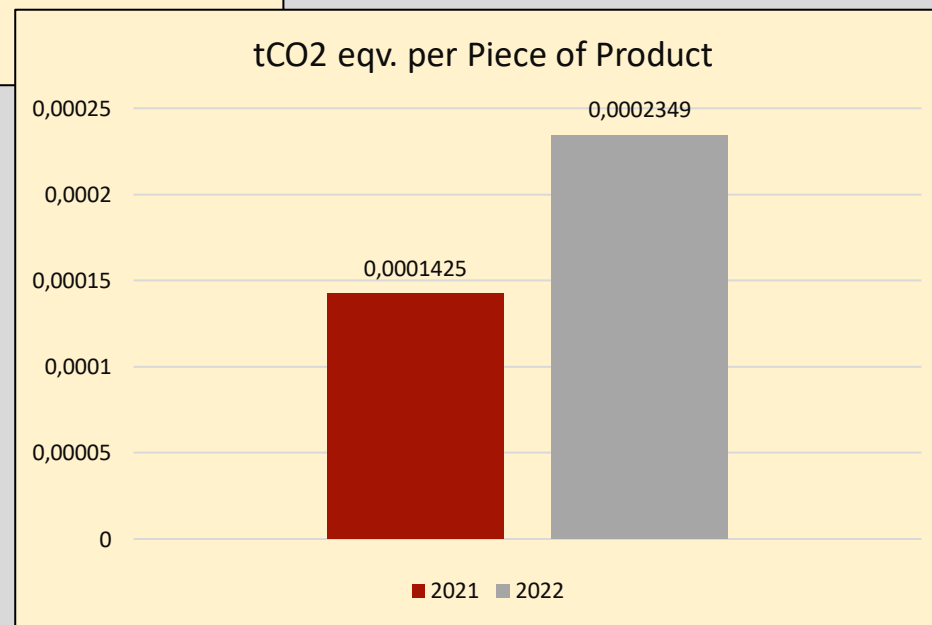
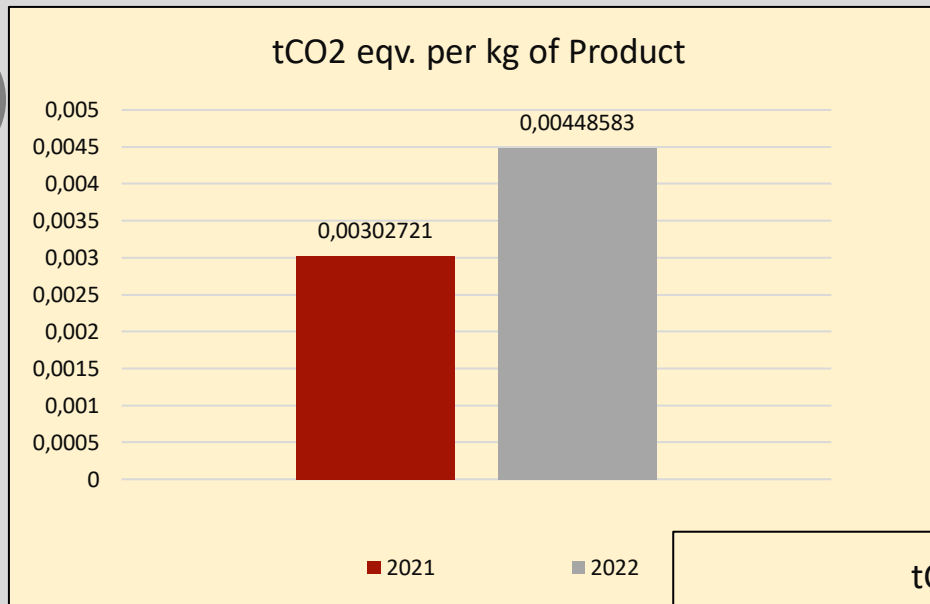


Figure 17. Distributions of Greenhouse Gas Emissions by Scope

- *Our Inventory of Corporate Footprint and Our Reduction Targets*

Our goal is to reduce our corporate carbon footprint by 35% till 2025 with the SES and energy efficiency investments.





- *Our Inventory of Corporate Footprint and Our Reduction Targets*

Our (Normalized) Carbon Footprint Per Product (Figure 18).

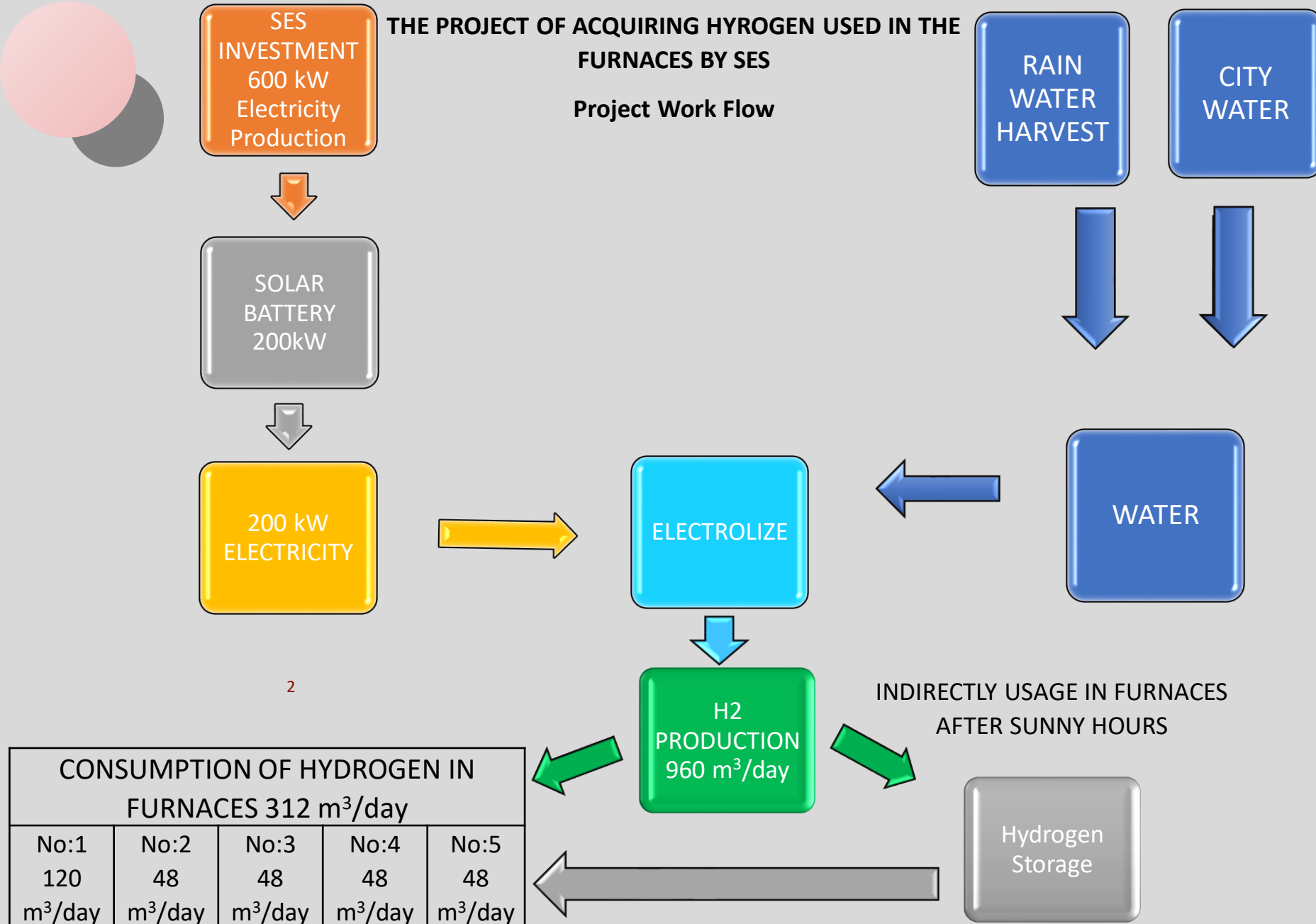
Figure 18. Carbon Footprint Per Piece of Product



Figure 19. Satellite Photo of Roof Panel of the Company

○ *Solar Energy (SES)*

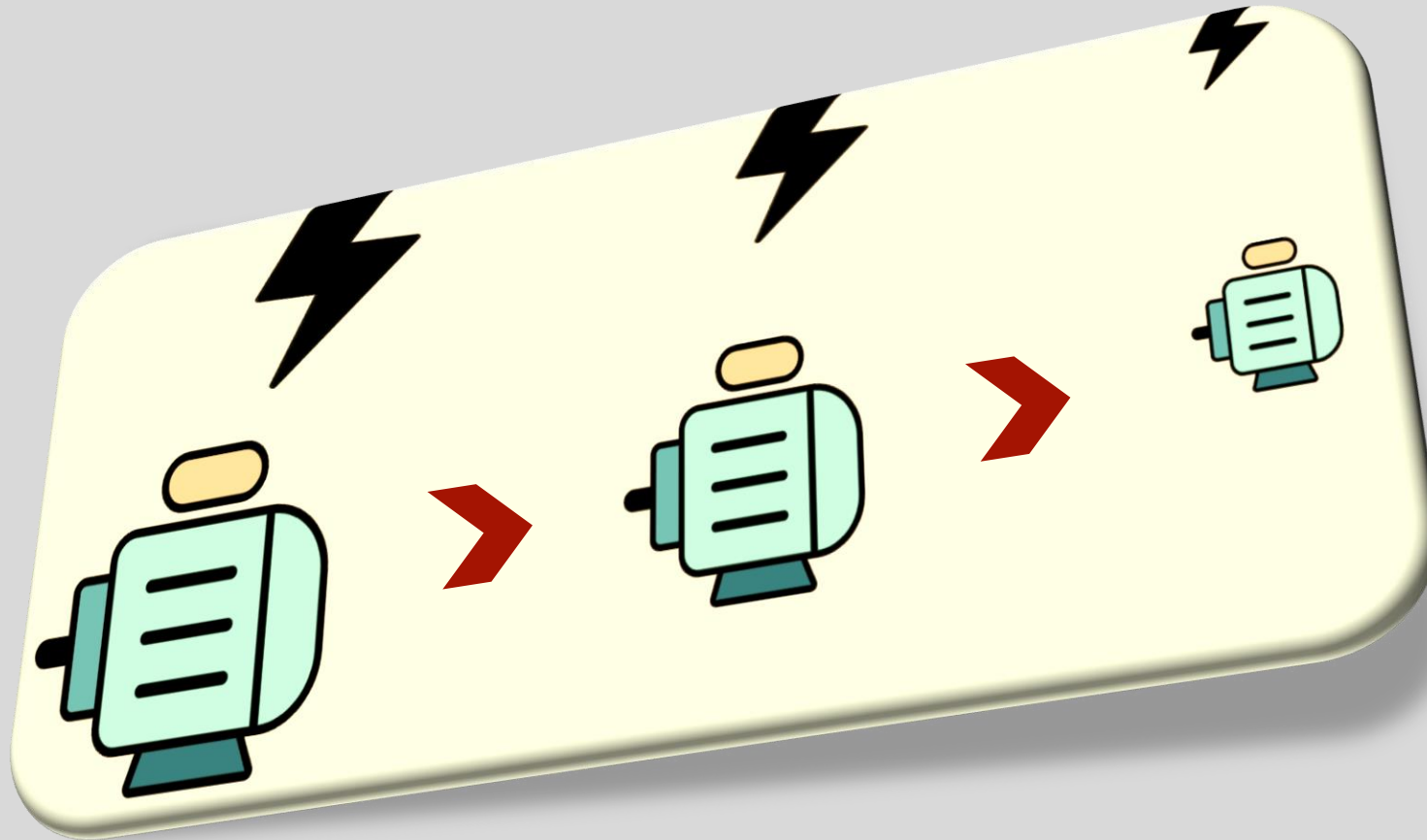
- ✓ The use of renewable energy sources in the production processes of industrial plants makes the greatest contribution to their becoming more environmentally friendly and sustainable. Also, it has a key role in reducing energy costs while having a more independent and reliable energy source when regarding the energy supply.
- ✓ With this awareness, EPTA has implemented a 400 kW GES project starting in 2023, covering an average of 40% of its annual energy consumption and expenses from solar panels. This means that our corporate carbon footprint is reduced at the same rate (Figure 19).



○ *Integrated SES and Rain Water Hydrogen Production*

Also, by acquiring hydrogen which will be used in our ovens instead of natural gas from using the clean energy we provide with SES investment and the rainwater we harvest, we will provide about 222.67 tCO2eq./year reduction in our greenhouse gas release amount with our new project, which we will be implemented very soon (Figure 20).

Figure 20. Green Hydrojen Production Project



○ *Energy Efficiency*

- ✓ Energy efficiency is reducing energy consumption, utilizing more efficient resources, enhanced industrial processes, energy recovery without reducing the amount of gas, heat, air and electrical energy loss, recovery and reconsideration of resources removed from the system as waste, or reassessment or production.
- ✓ The essential issue in energy efficiency is reducing consumption by using energy effectively without going to any savings or restrictions. Efficient utilization of energy in industries with high production capacity and excess energy consumption reduces costs and severely reduces the consumption of resources needed for the energy acquisition.



EPTA METAL VE KABLO SAN. VE TİC. LTD. ŞTİ.

DETAYLI ENERJİ ETÜT RAPORU

Hazırlayanlar

Dr. Cem KARABAL (Makine Mühendisi, SEP Uzmanı, CMVP)

Serkan ODABAŞI (Makine Mühendisi, SEP Uzmanı, CMVP)

Aykut GÜRKAN (Makine Mühendisi, SEP Uzmanı)

Şubat 2023

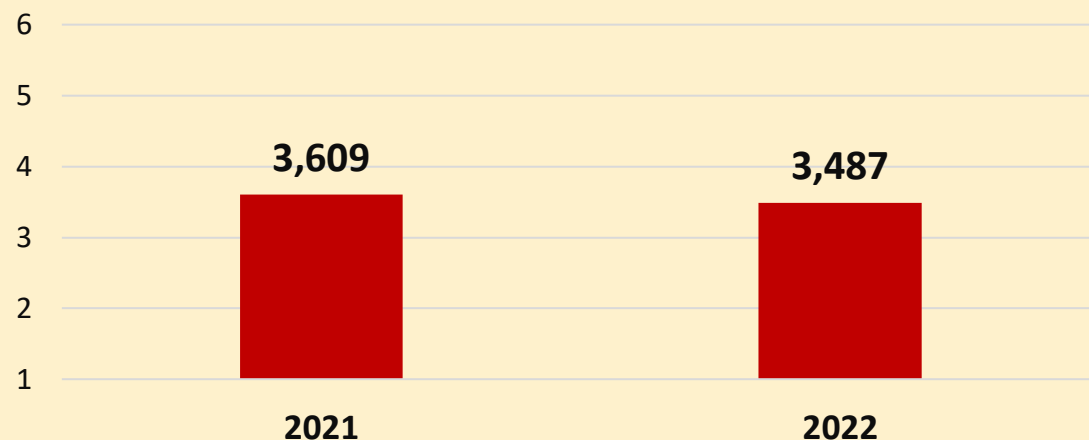
1

○ Energy Efficiency Audit Report

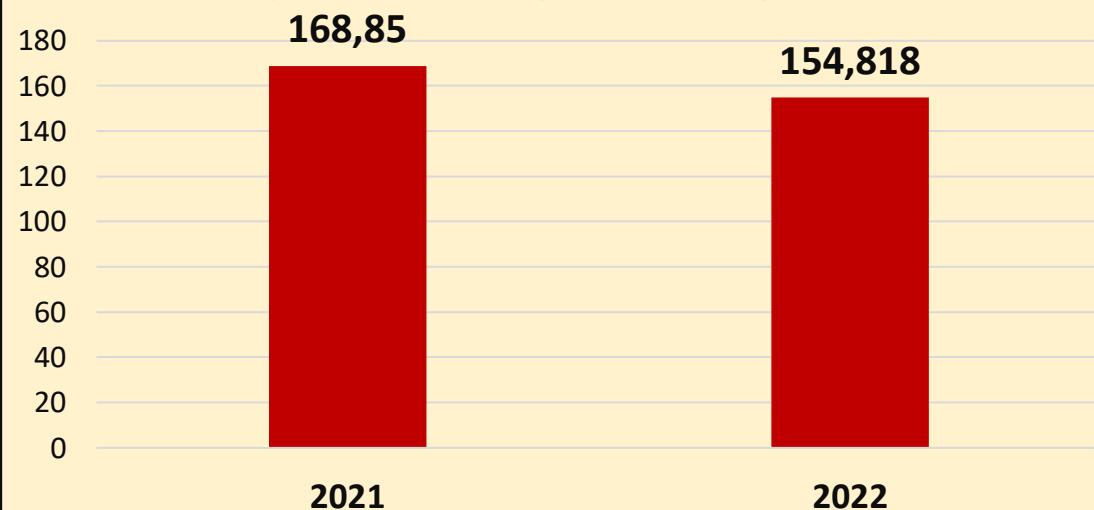
- ✓ In the context of this work; systems that could have potential to save energy such as heating, cooling, ventilation systems, lighting system, electric motors, insulation status of mechanical equipment, automation system, transformers have been studied.
- ✓ Measurements were taken, detailed examinations were carried out, particularly on electric motors with high energy savings potential. Various measurements were made through the power analyzer to determine the performance of electric motors. Debit and strength measurements have been made so that the efficiencies of boilers, fans and circulation pumps can be determined. Various measurements have been made specific to these units, which have a direct impact on production in the business, and quantities of savings have been determined.
- ✓ Units with other savings potential have also been examined in detail and detailed in the report in later sections. EPTA, in reference to KOSGEB's "Efficient Engine Project," aims to prevent a 30% energy loss and prevent the release of 141 tons of CO₂ equivalent carbon dioxide by converting all engines within the factory, particularly compressor engines, to

Figure 21. Energy Efficiency Audit Report

**Graph 5- Energy Consumption Per Unit of Product
(TEP/Production Piece) x10⁻⁴**



Graph 6- TEP Changes According to Years

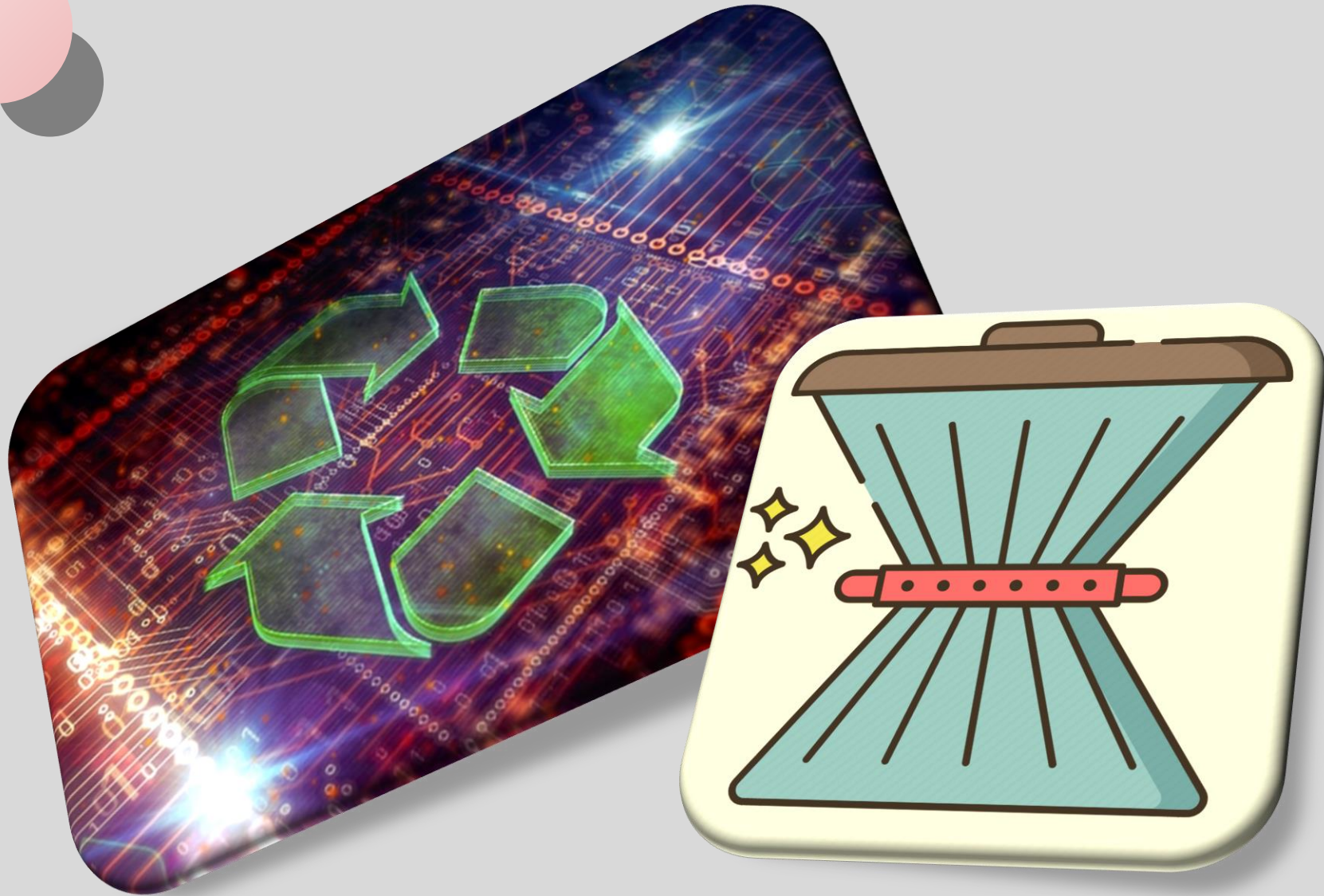


○ *Energy Efficiency
Audit Report*

In our company, energy consumption per unit product (TEP/production period) was 0,0003609642 in production processes for 2021, and 0,0034878812 for 2022 (Graph 5).

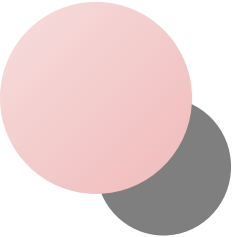
This amount is estimated to decrease with our SES and energy efficiency applications in our company.





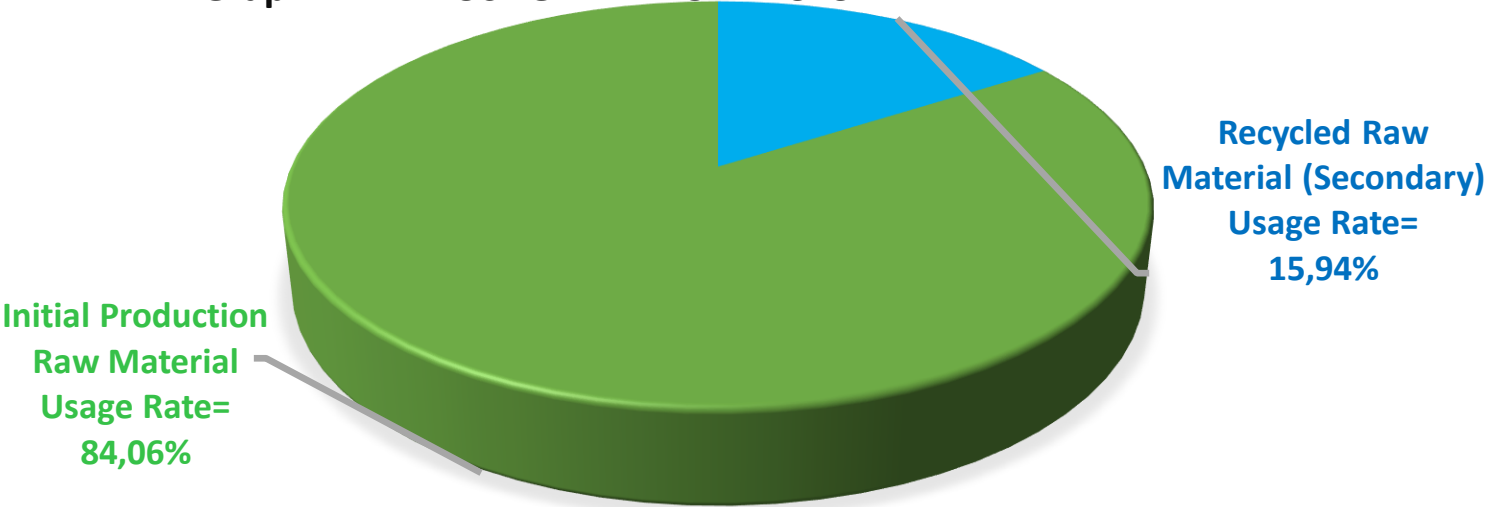
- *Waste Reduction and Recycling*

Our firm considers the use of recycled materials to improve environmental sustainability extremely important for natural resource conservation and waste reduction. This is because we believe that opting for recycled materials in the supply of raw materials required in the production processes is important for an environmentally friendly production. Thus, we aim to further increase our contribution to this process by setting a roadmap with our suppliers and customers to increase the use of recycled materials in the products we produce.

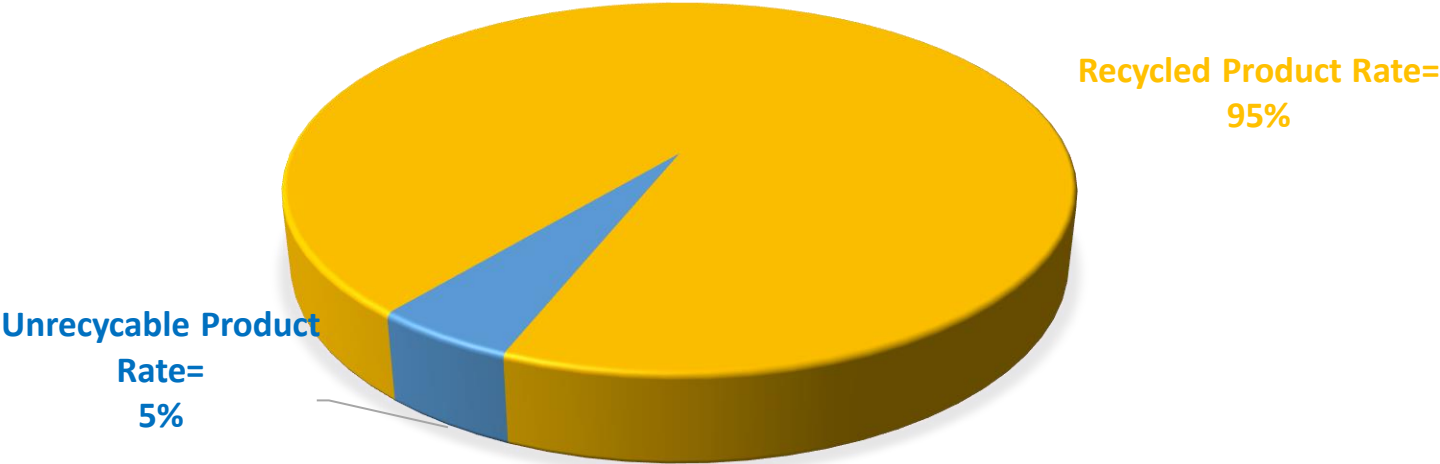


5640221300

Graph 7.- THE USAGE RATE OF RECYCLED RAW MATERIAL



Graph 8.- RECYCLABILITY RATE

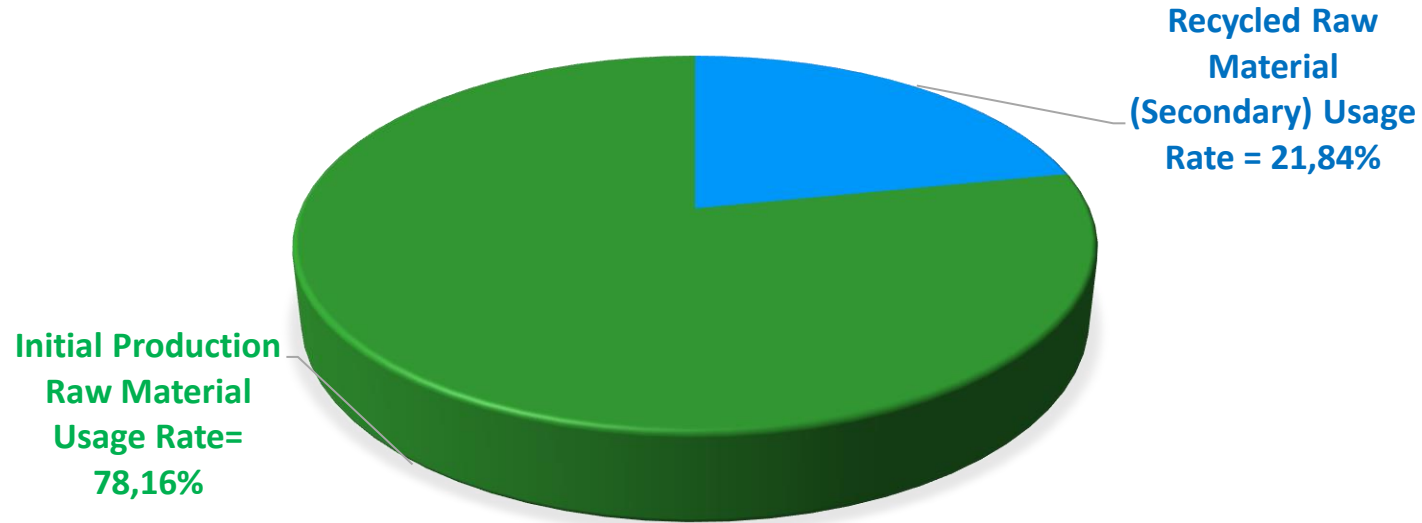


○ *Waste Reduction and Recycling Product Profile*

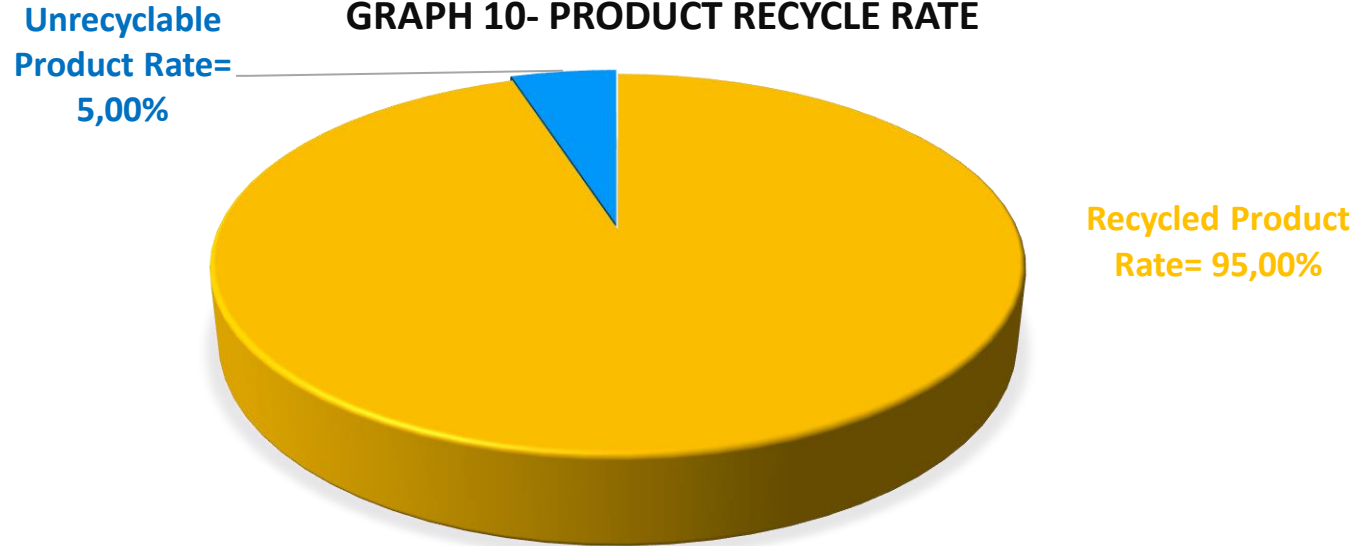
- ✓ In this scope, EPTA implemented waste reduction/recycling programmes for Sustainable Development Purposes and the EU Green Deal; it shares the rates of recycled raw materials and the rates of product recyclability in the components of the products it produces transparently and evidence-based to ensure both minimizing waste generation and the requirements for recycling to save raw materials and energy..
- ✓ Accordingly; we aim to take our rate of use of recycled raw materials to at least 25% by 2023, which is approximately 16% in our cable products and 22% in metals processing. We will also increase the proportion of recycled content used in our packaging (Graph 7-8 and Graph 9-10) also contribute to the fight against climate change.).

1014109

GRAPH 9- RECYCLED RAW MATERIAL USAGE RATE

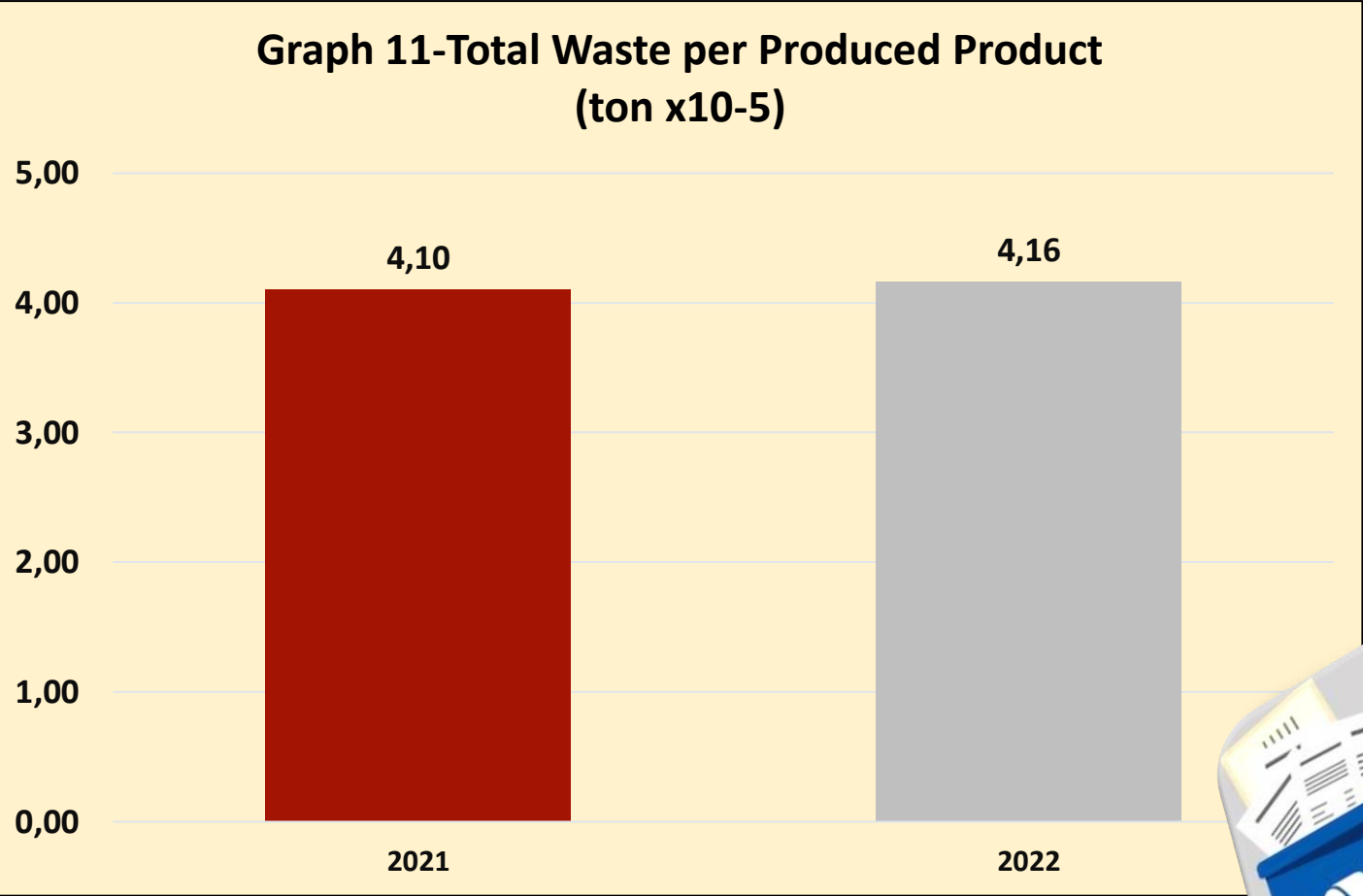
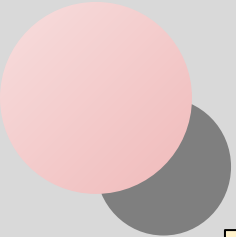


GRAPH 10- PRODUCT RECYCLE RATE



○ *Waste Reduction and Recycling Product Profile*

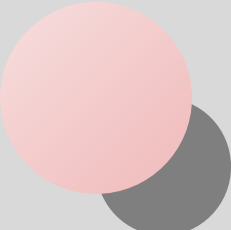
- ✓ In this scope, EPTA implemented waste reduction/recycling programmes for Sustainable Development Purposes and the EU Green Deal; it shares the rates of recycled raw materials and the rates of product recyclability in the components of the products it produces transparently and evidence-based to ensure both minimizing waste generation and the requirements for recycling to save raw materials and energy..
- ✓ Accordingly; we aim to take our rate of use of recycled raw materials to at least 25% by 2023, which is approximately 16% in our cable products and 22% in metals processing. We will also increase the proportion of recycled content used in our packaging (Graph 7-8 and Graph 9-10) also contribute to the fight against climate change.).



○ *Waste Reduction
and Recycling*

**Total Waste per kg Product Produced
(Graph 11)**





Dear Our Supplier,

As you know, waste and recycling waste have become an increasingly important practice in the world and in our country. Recycling as a way of protecting nature is a positive practice that reduces recourse to resources in nature. That's why we also find and support our suppliers' use of recycled materials positive.

Our preference is to use recycled materials such as glass, metals, plastic, waste papers and protect natural resources, rather than cutting down a tree for paper production. Furthermore, such practices will no longer be voluntary practices, along with decisions taken by the European Union and the United Nations; the use of recycled material will be obligatory.

Therefore, we ask you to increase the use of recycled materials in your products as much as possible and to give us the information about the recycled material usage according to the details that we will share with you about this, later.

EPTA

○ Sustainable Supply Chain

- ✓ EPTA aims to ensure that all products holistically from the supply chain are manufactured in sustainability principles and environmentally friendly processes, not just in its own manufacturing processes.
- ✓ This is because today, when the transition from linear production to cyclical green manufacturing processes becomes important, it will be possible for all firms to maintain competitiveness but adapt to this process in their businesses, which are located in supply chains.
- ✓ In this scope, carbon footprint information of each component is required to be provided over the product lifecycle with the type and quantities (%) of recycled substances used in the contents of all input materials that make up the components of all our products (which make up the product tree) provided by our suppliers.
- ✓ For the success of this process, we have sent the following letters of intent to all our suppliers, including our wishes for cooperation.



Figure 22. EPTA Sustainable Water Consumption Cycle

○ *Water Consumption*

- ✓ While protecting water resources is a fundamental requirement for sustainable activities of industrial enterprises, water shortages are becoming a serious problem in many regions while water supplies are steadily decreasing as a result of the climate crisis.
- ✓ In this context, we are not only being an environment friendly company by doing the activities as water saving, rain water harvesting and central water purification but also we have been working towards a more sustainable future while reducing our costs and fulfilling our economic and social responsibility (Figure 22).
- ✓ Besides this, our company will use the water from the system it installed for harvesting rainwater (green water) from the roof with sustainable water management understanding, as a source of water for green hydrogen production in the near future, while using garden irrigation with SES-sourced electricity powered pumps for cleaning (Figure 23).

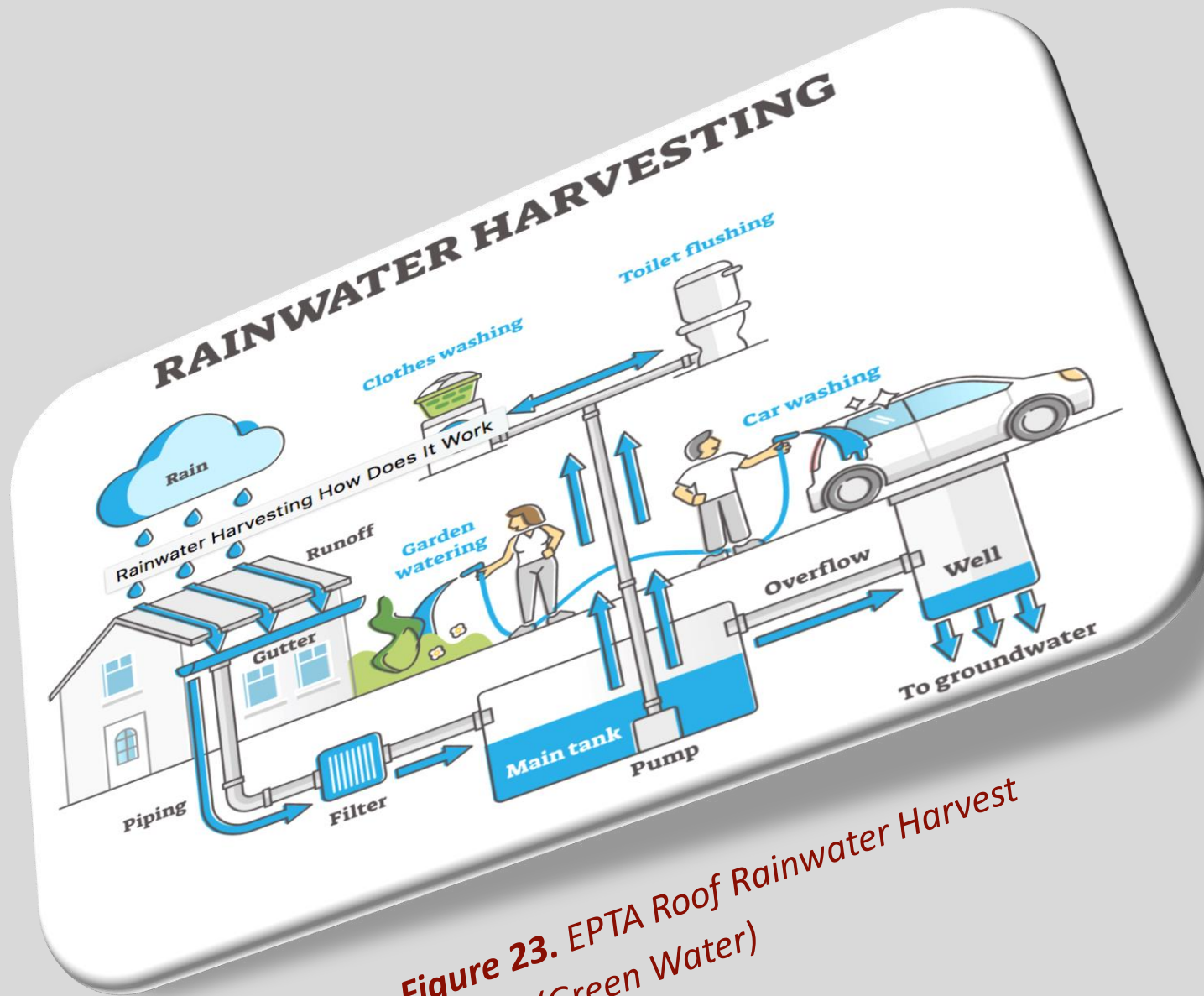


Figure 23. EPTA Roof Rainwater Harvest System (Green Water)

○ Water Consumption

- ✓ While protecting water resources is a fundamental requirement for sustainable activities of industrial enterprises, water shortages are becoming a serious problem in many regions while water supplies are steadily decreasing as a result of the climate crisis.
- ✓ In this context, we are not only being an environment friendly company by doing the activities as water saving, rain water harvesting and central water purification but also we have been working towards a more sustainable future while reducing our costs and fulfilling our economic and social responsibility (Figure 22).
- ✓ Besides this, our company will use the water from the system it installed for harvesting rainwater (green water) from the roof with sustainable water management understanding, as a source of water for green hydrogen production in the near future, while using garden irrigation with SES-sourced electricity powered pumps for cleaning (Figure 23).

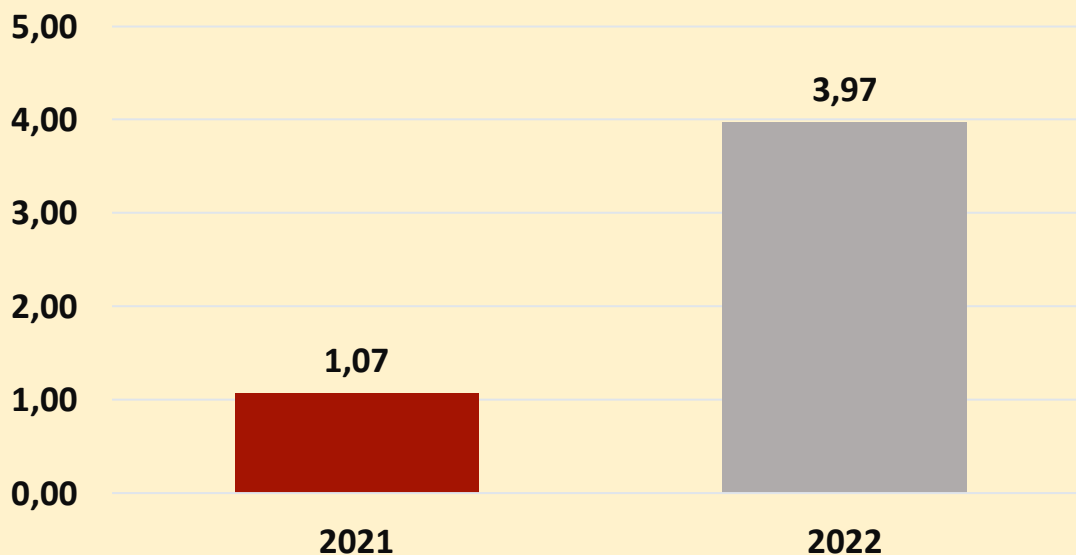


Figure 24. EOSB Waste Water Treatment Plants

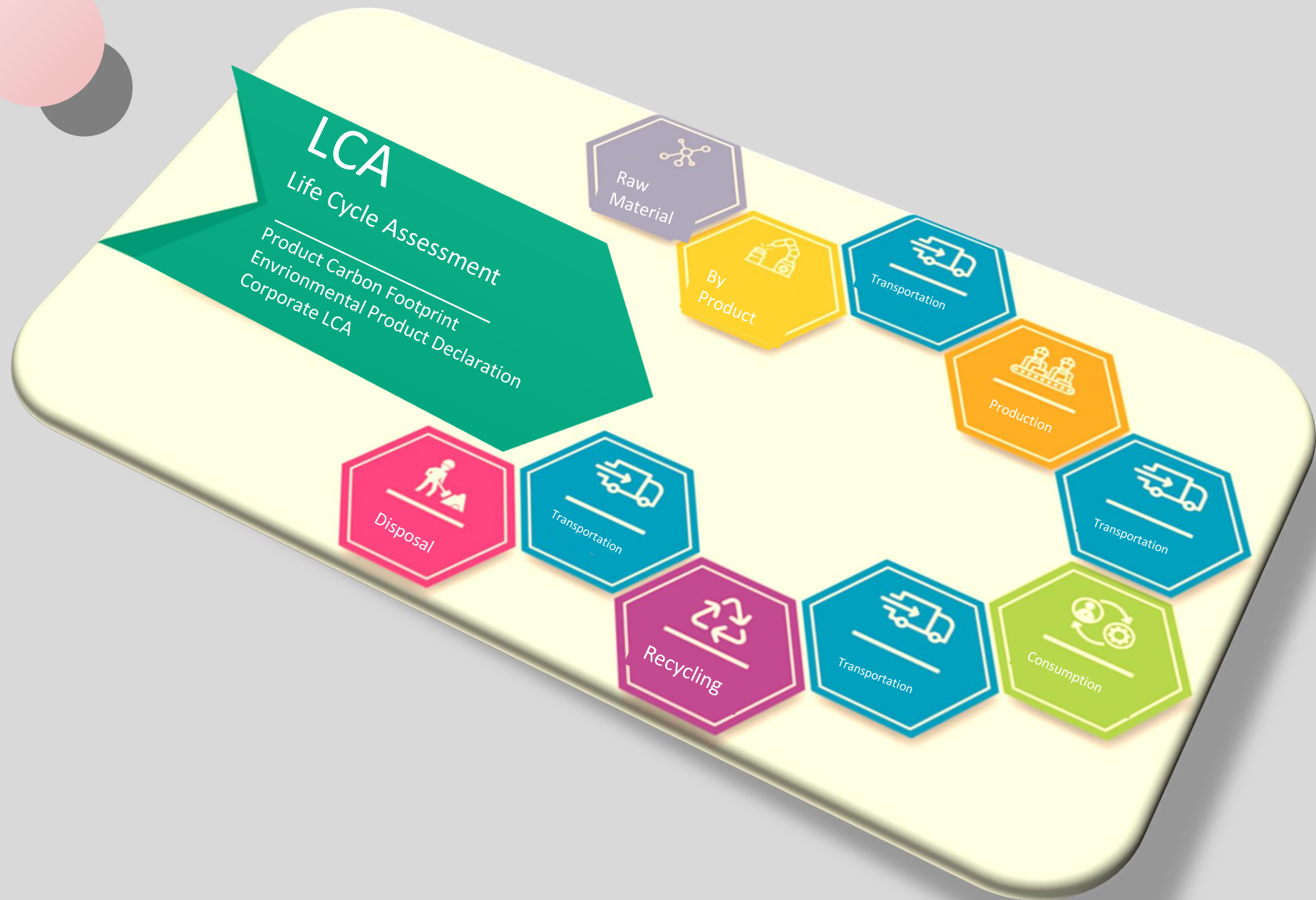
○ Water Consumption

- ✓ Waste water discharges from our company are documented to be under legal limits by analyzing them with certain periods, and then waste water is treated by the EOSB wastewater treatment plants (Figure 24).
- ✓ The total amount of water drawn from the EOSB network for the 2021 operations of our business was 2,400 m³ and the amount of (blue) water drawn per product was 5x10-5m³/kg product (Graph 12).

Graph 12- The Total Water Drawn per kg Product Produced (m³/kg x10⁻³)



Note: The increase in the amount of water was due to the replacement of our company into its new building in 2021.



○ *Product Life Cycle Assessment*

- ✓ We are monitoring and making improvements to the environmental impacts at every stage of the life cycle, from the extraction of raw materials we use to the production, distribution, use and recycling or disposal of the product with life cycle analyses.
- ✓ Because the results from these analyses are of paramount importance in identifying and monitoring how effective all sustainability-based practices are.



EPTA SOCIAL SUSTAINABILITY ACTIVITIES

Table 3. Our Basic Principles for Social Sustainability

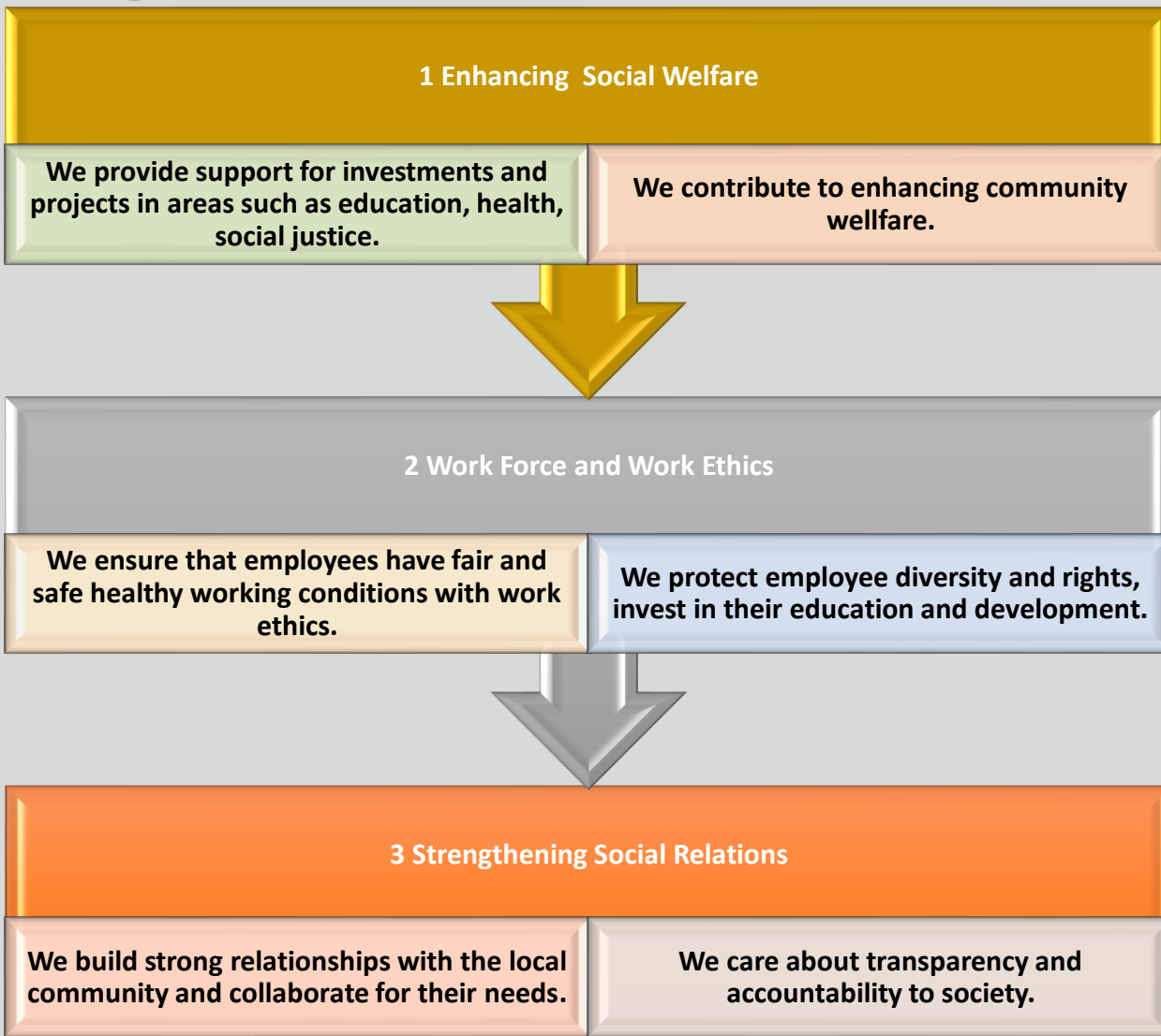


Figure 25. Our Basic Fields for Social Responsibility

○ **Social Sustainability**

- ✓ With a focus on developing sustainable business models and production, EPTA is rapidly implementing social sustainability practices that focus not only on economic success but on enhancing social welfare through its human rights, community and environmentally friendly practices and leaving a more livable world to future generations (Table 3).
- ✓ With our understanding of social responsibility, one of the most important components of social sustainability, we engage in activities that take into account the needs of society and our employees (Figure 25).

Table 4. Our Employment Policies



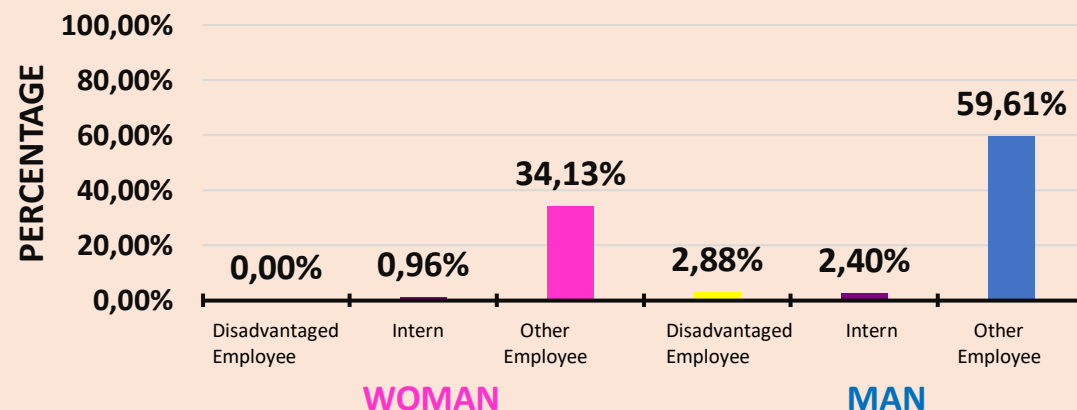
Equitable Recruitment Policies	
Wage Balance	
Employee Diversification and Inclusivity	
Struggling with Discrimination	
Training and Skill Development	
Career Advancement and Promotion Opportunities	
Peaceful Business Environment	

○ ***Our Employment Policy:
Diversity, Gender
Equality and
Disadvantaged Groups***

- ✓ Ensuring equal opportunity for diversity of human resources and gender and disadvantaged groups in business is vital not only for the creation of a just society but also for economic development and sustainability.
- ✓ With this understanding, EPTA sees gender equality and employment of disadvantaged groups as an indispensable part of taking steps towards solving a societal problem and creating a fairer world.
- ✓ Thus, by looking after diversity and gender equality among our employees as much as possible, we are bringing a wider and efficient talent pool into our business ecosystem, enabling new ideas to emerge and innovative solutions to be built through the inclusion of women and disadvantaged groups in the workforce (Table 4).



GRAPH 13-2021 EPTA EMPLOYEE DISTRIBUTION



Our Employee Profile

With our resources of people from diverse backgrounds, experiences and cultures, we contribute to reducing and integrating social inequalities with the employment of these groups while giving us the corporate capacity to operate creative thinking at work, successfully dealing with diversity and addressing issues from different aspects (Graph 13 & 14).

GRAPH 14-2022 EPTA EMPLOYEE DISTRIBUTION

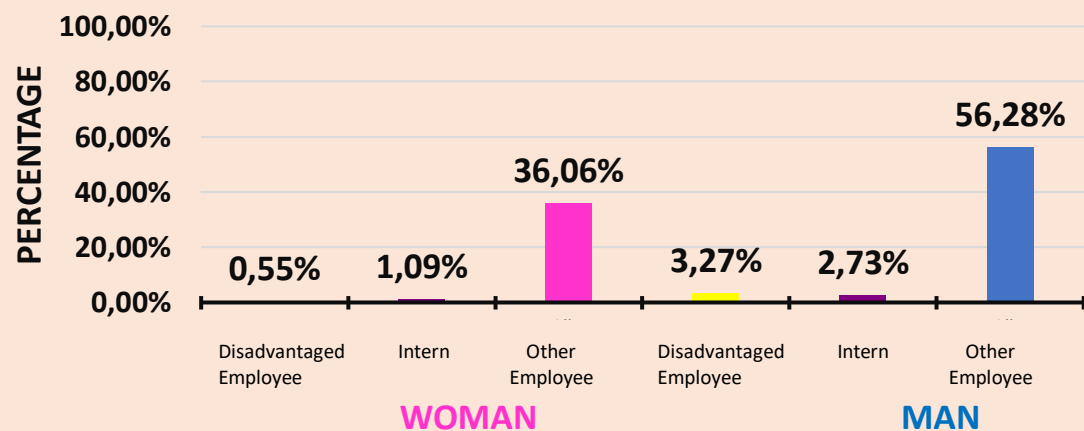
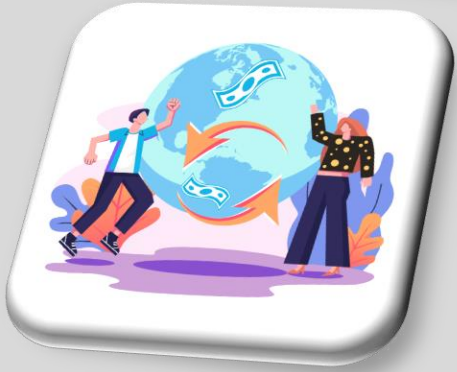


Table 5. Contents for Improving the Social Welfare



Economical

- Increasing the income level of society, reducing unemployment, addressing economic inequalities and developing a healthy workforce



Social

- Ensuring everyone has equal rights and job opportunities, making education and healthcare accessible, upholding the values of social justice and human rights



Environmental

- On sustainable use of natural resources, tackling the climate crisis, reducing environmental pollution and protecting ecosystems

○ Improving the Social Welfare

- ✓ Improving the social welfare aims to ensure that a society has a better standard of living, a fairer social structure and greater equality of opportunity.
- ✓ Achieving these goals requires all public institutions, businesses and social stakeholders such as the NGO to work together to improve people's quality of life, reduce inequalities, ensure social justice and build a sustainable future.
- ✓ Companies are able to contribute to the development of social prosperity through their economic activities, as well as through business ethics, sustainability, social responsibility projects and fair business practices, as well as through their innovations and technological development.
- ✓ Believing in the importance of industrial organizations, EPTA attaches great importance to its efforts to contribute not only to its own enterprise success but also to societal prosperity through its economic, environmental and social comprehensive practices that also look after local needs.
- ✓ Thus, we contribute directly and indirectly to the following fundamental issues with the integral sustainability-based production understanding we prioritize for the promotion of social prosperity (Table 5).

○ *Workforce and Work Ethics*

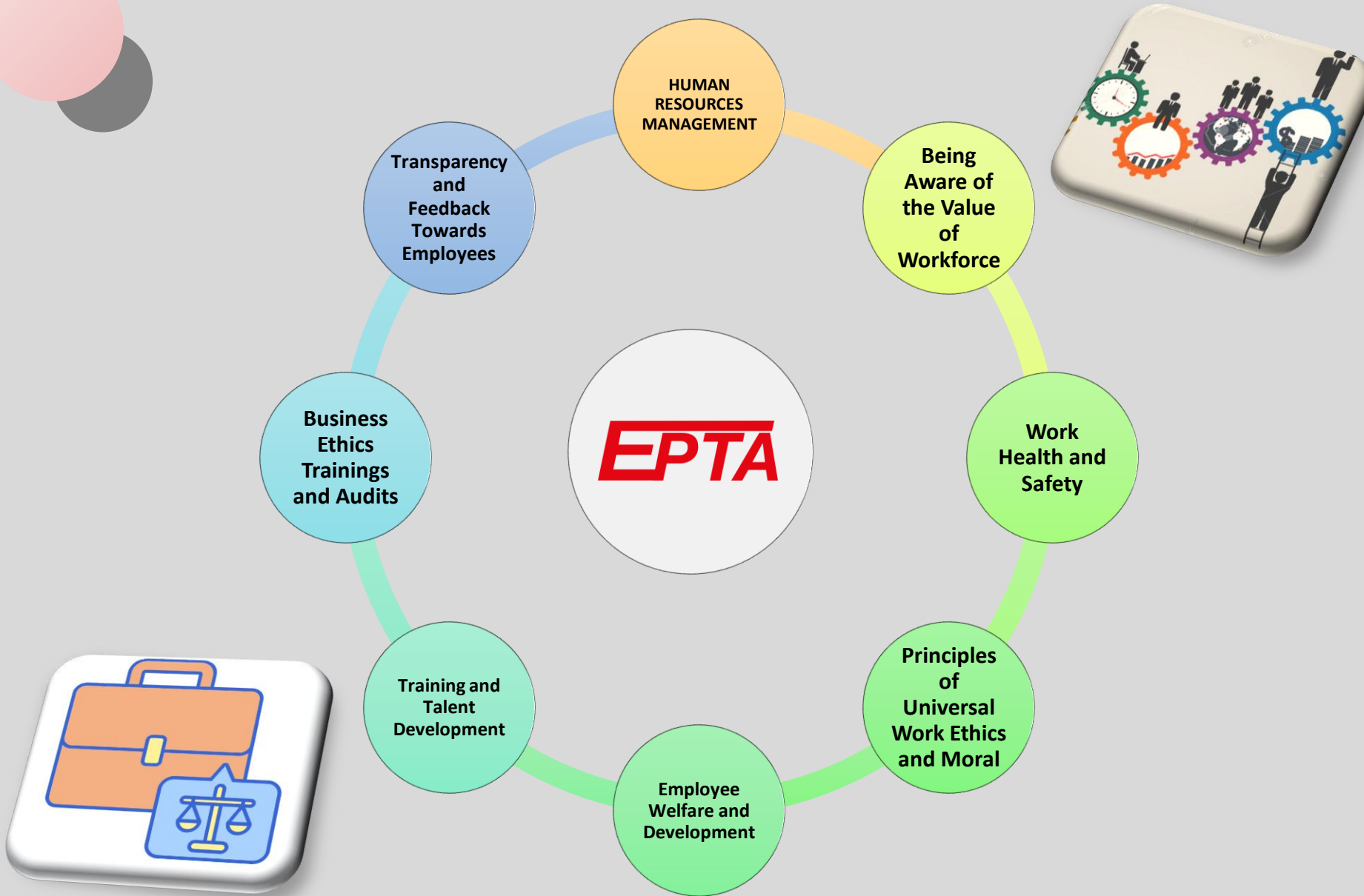
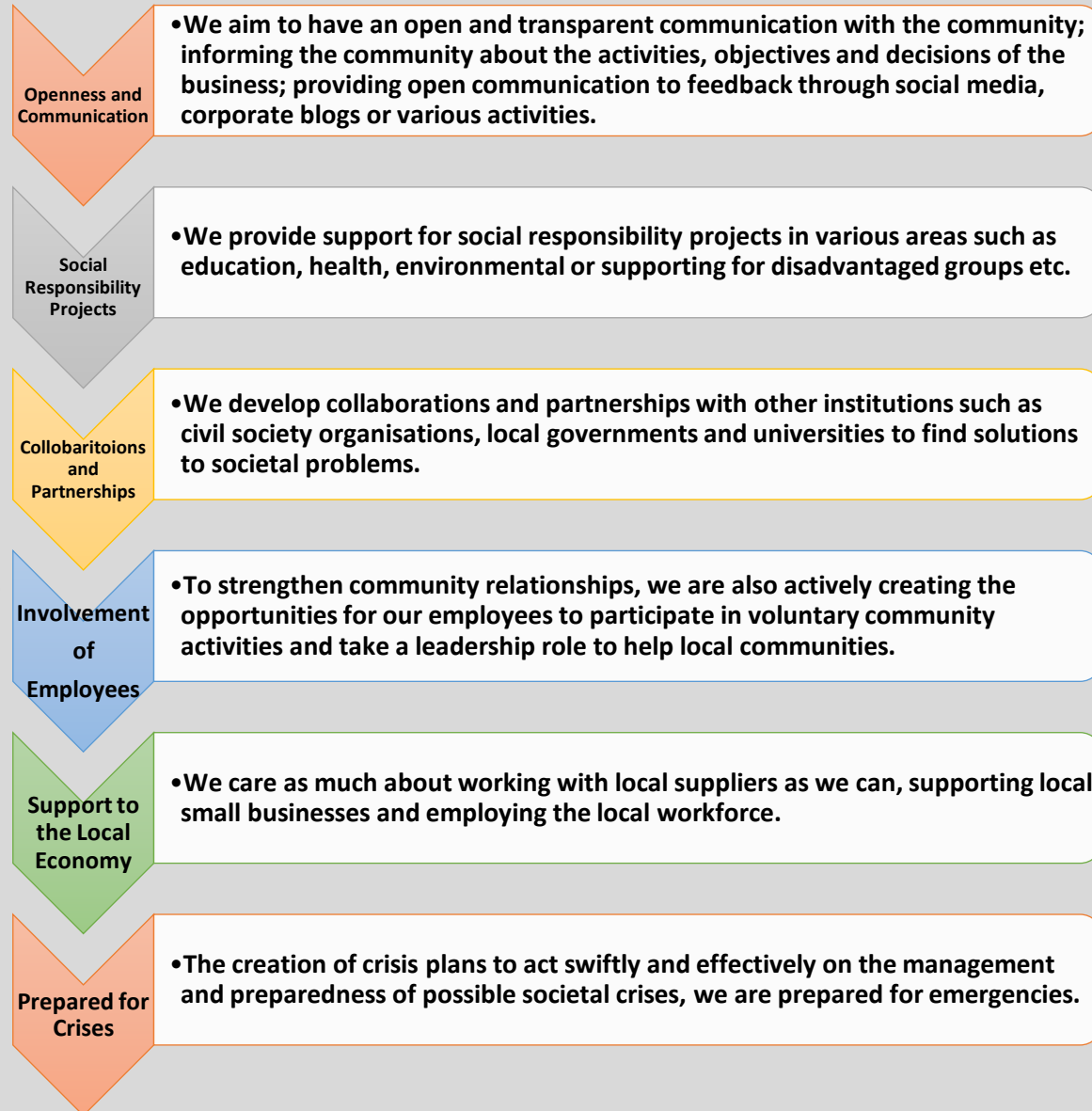


Figure 26. The Areas Improved

- ✓ One of the key elements of our business is the importance we place on workforce and business ethics. We see our workforce as a valuable and strategic element and put the wellbeing of all our employees at the heart of our understanding of work ethics. By recognizing the capabilities and potentials of our employees in this scope, enhancing their commitment to ethical values; we embrace a workforce management that ensures a healthy business environment on the basis of equality, fairness and respect and is based on ethical values.
- ✓ Being aware of the value of our workforce for a sustainable and long-term corporate success as a company, we are progressing through continuous improvements to the mentioned key headlines (Figure 26).
- ✓ We also listen to feedback from our employees, evaluate their views and adopt a participatory management understanding in the interest of communicating openly and honestly with our employees and ensuring a transparent business environment. So, we strengthen the culture of work ethics together by building a strong relationship with our workforce.

Table 6. Our Activities for Developing The Social Relations



○ **Developing Social Relations**

Strengthening the social relations as much as economic gains is included in our strategic priorities which has the priority for the success of our company. We are making the necessary institutional efforts to improve social relations in line with our own industry and target audience (Table 6).

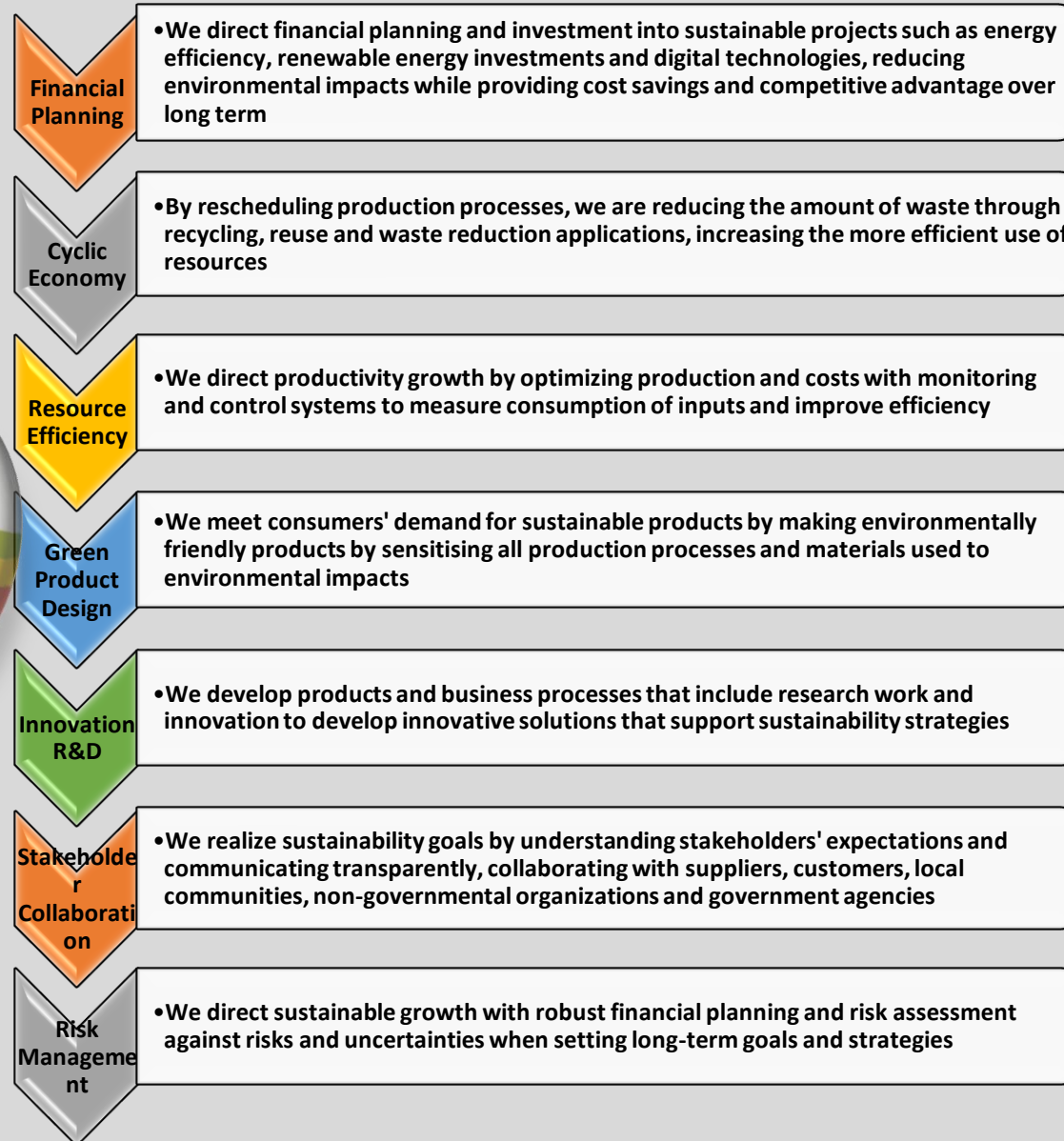


Figure 27. Economic Sustainability Activity Cycle

- ***EPTA Economic Sustainability Activity Cycle***

- ✓ EPTA, which considers economic sustainability as the ability to drive our organization's economic performance in the long term, aims to create both financial success and long-term value by ensuring economic sustainability for future growth and competitive advantage, not just environmental and social.
- ✓ It is progressing by creating an economic sustainability action plan cycle to manage this process (Figure 27).

Table 7. Our Basic Actions for Economic Sustainability



○ *Our Basic Actions for Economic Sustainability*

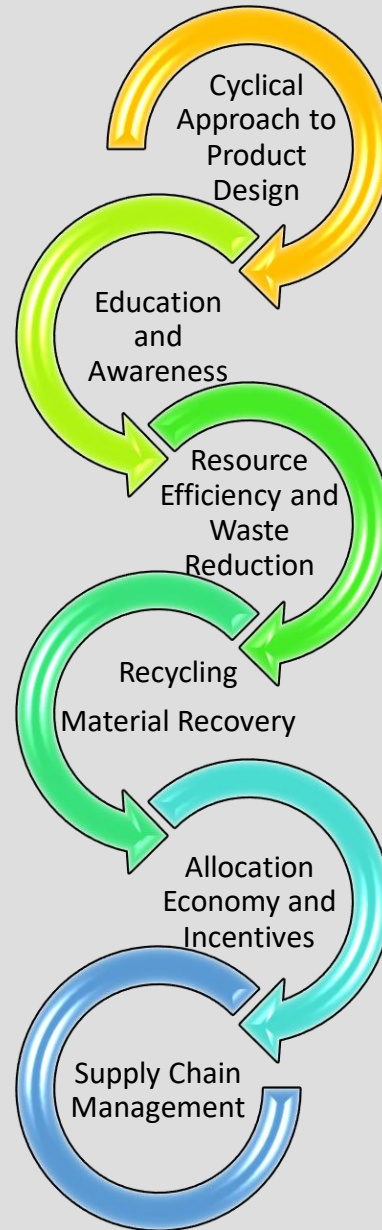
The basic actions that we will follow by sticking to the action cycle process for economic sustainability are these (Table 7):

Table 8. Our Management of Sustainable Financial Planning for Economic Sustainability



○ **Finance and Investment Planning**

We are moving forward through a sustainable financial planning management, also assessing our fiscal goals, resources and market conditions to enhance our financial success and ensure a sustainable economic future (Table 8).



- ***Cyclical Economy Applications***

By keeping resources and materials in the economic cycle for as long as possible, we contribute to the sustainable economy while minimizing costs, waste and environmental impacts (Table 9).

Table 9. Cyclical Economy Applications

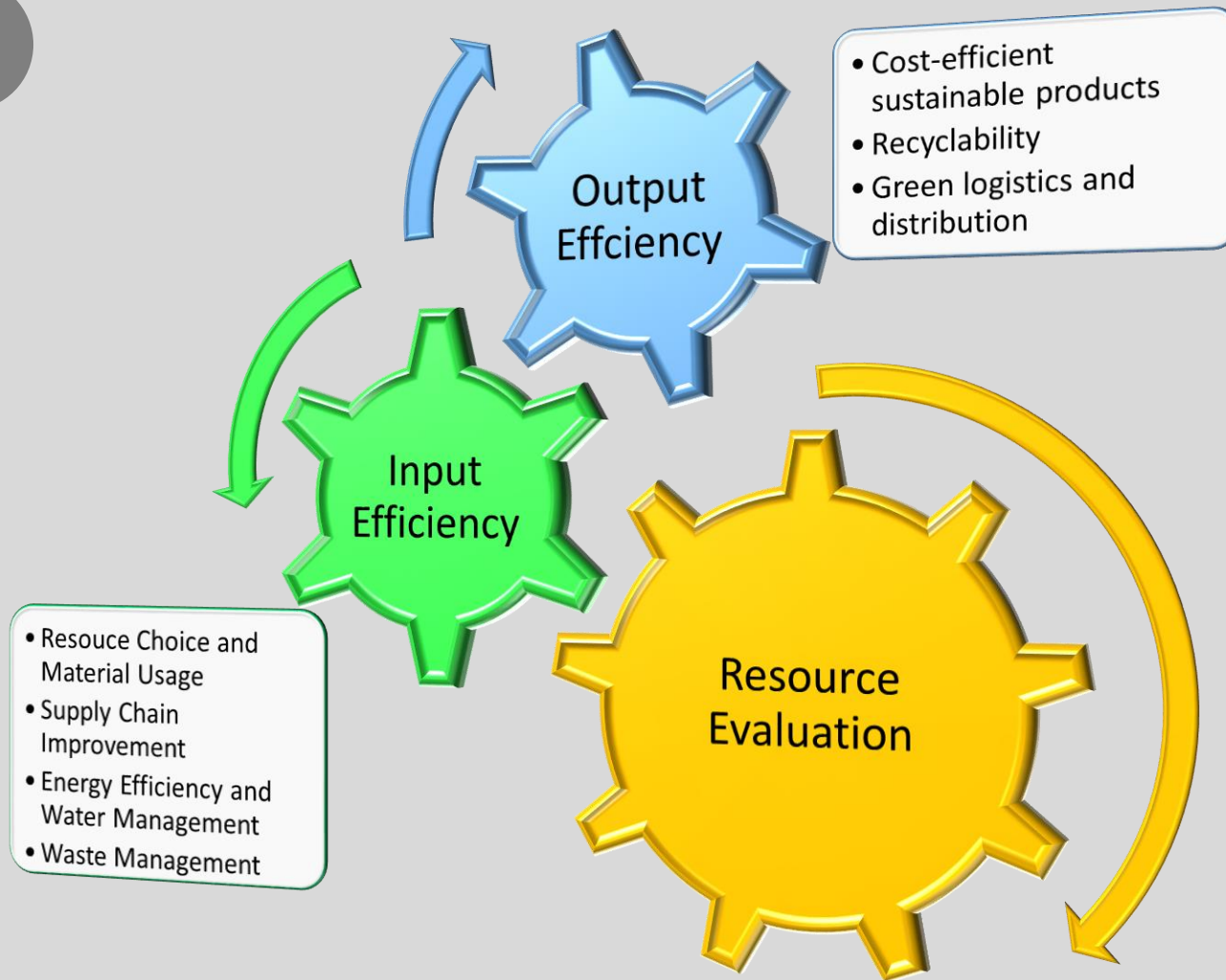


Figure 28. *Our Green Product Design Principles*

○ **Resource Efficiency**

While we continuously improve our capacity to optimally utilize all resources in our production processes, we also support the protection of natural resources and the environment by providing the highest output with less input (Figure 28).

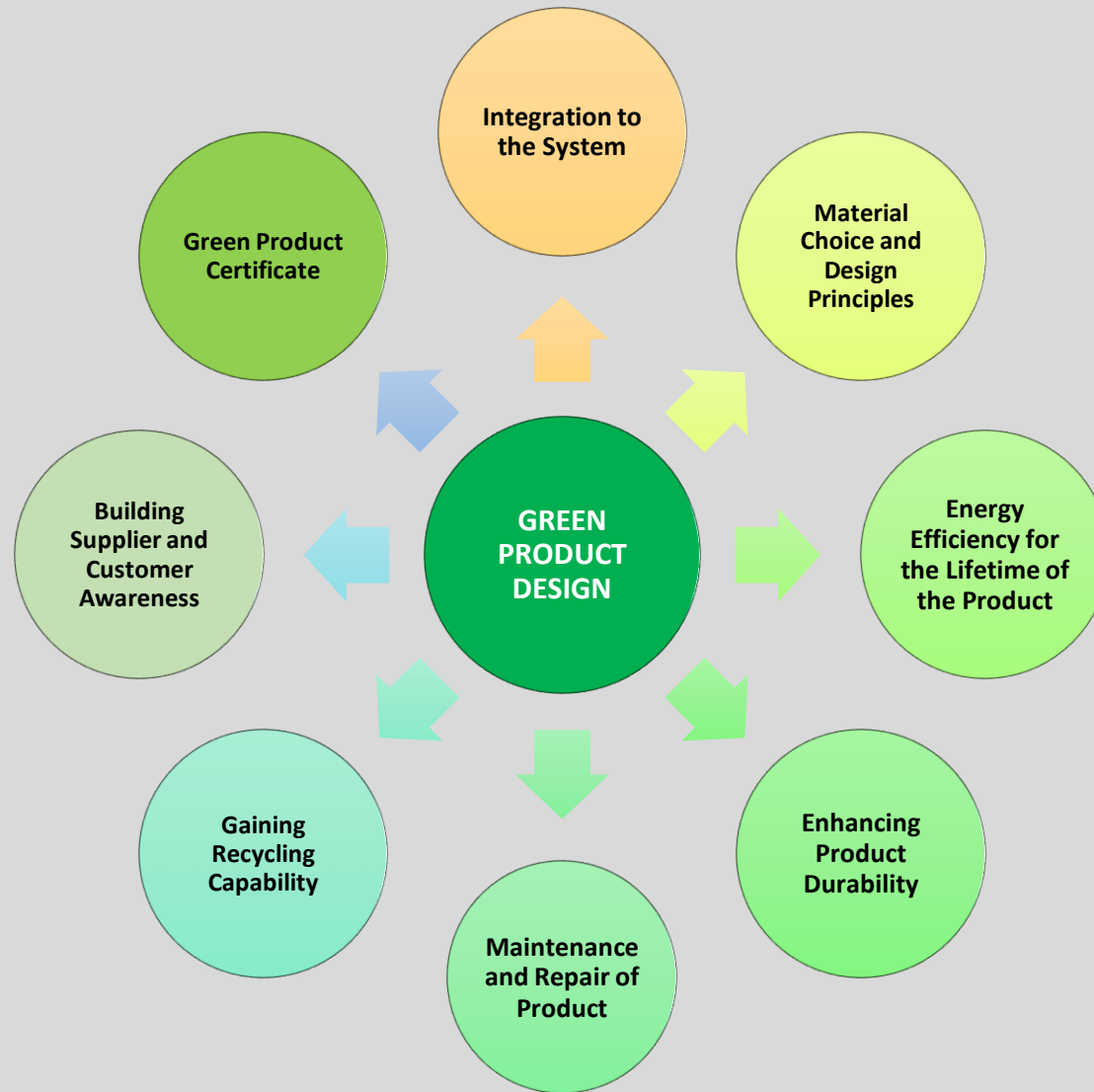


Figure 29. Our Design Principles of Green Products

○ *Green Product Design*

- ✓ EPTA has focused on reducing the costs and environmental impact, improving the efficiency and making a difference in markets by innovation and R&D studies; innovative products, processes and technologies developed.
- ✓ Thus, it aims to promote economic sustainability while improving the competitiveness of our business. In this scope, we take a holistic approach in our innovation and R&D studies, leveraging different processes (Figure 29).

Table 10. *Process Management for Innovation and R&D*



Determining Strategic Targets	
Resource Allocation	
Research and Analysis	
Collaboration and Partnerships	
Efficiency and Process Improvement	
Evaluation and Measurement	
Patent and Intellectual Property Rights	
Integration to the Sustainability Strategies	
Employment Creation	
Technological Development	
Customer Satisfaction and New Markets	

○ **Innovation and R&D**

- ✓ EPTA has focused on reducing the costs and environmental impact, improving the efficiency and making a difference in markets by innovation and R&D studies; innovative products, processes and technologies developed.
- ✓ Thus, it aims to promote economic sustainability while improving the competitiveness of our business. In this scope, we take a holistic approach in our innovation and R&D studies, leveraging different processes (Table 10).

Table 11. Our Principles for Customer Satisfaction



Qualified Products and Services	<ul style="list-style-type: none">• Providing qualified, reliable, durable, functional and sustainable products that meet the needs of our customers.
Customer Support and Communication	<ul style="list-style-type: none">• Responding to customers' questions, complaints or requests quickly and effectively and engaging in effective communication with them.
Personnel Behaviour	<ul style="list-style-type: none">• Bringing positive customer experiences towards our company with our employees who show respectful, understanding, kind attitudes and behaviors.
Specialization in Products	<ul style="list-style-type: none">• Understanding our customers' preferences and needs, providing them with tailored services, products and solutions.
Fast and Effective Service	<ul style="list-style-type: none">• Solving problems, delivering orders on time and delivering quick and efficient services without sacrificing product quality.
Transparency and Trustworthiness	<ul style="list-style-type: none">• Delivering pricing, product information and policies clearly to customers with transparent and reliable disclosures in transactions made.
Ability to Solve Problems	<ul style="list-style-type: none">• Giving satisfaction-focused solutions by quickly addressing customers' complaints and issues.
Loyalty Programs and Discounts	<ul style="list-style-type: none">• Organising loyalty programs and offering exclusive discounts for customers.
Sustainability	<ul style="list-style-type: none">• Presenting information that our company is fulfilling its responsibilities to economic, social and environmental sustainability.

○ **Customer Satisfaction**

- ✓ EPTA puts customer satisfaction at the heart of its way of doing business in order to deliver products of quality that meet their expectations and needs, knowing that building a loyal customer base is a major advantage in competition in the industry.
- ✓ With this understanding, our company has a systematic management understanding to ensure customer satisfaction (Table 11).

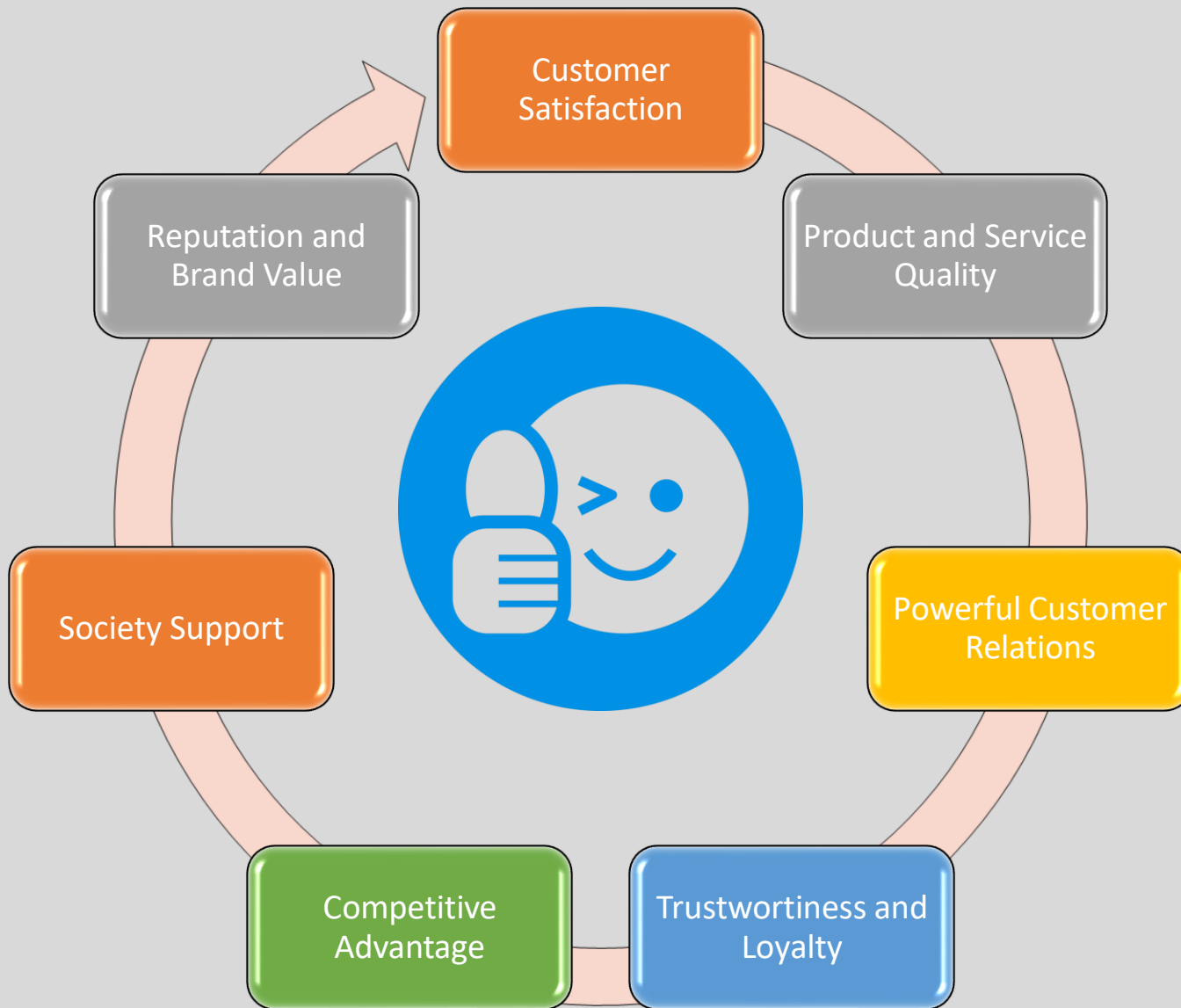


Figure 30. Activity Cycle for Customer Satisfaction

○ Customer Satisfaction

- ✓ Customer satisfaction is a fundamental part of our company's relationship with its customers but also refers to customers' satisfaction with our products and services.
- ✓ EPTA aims to achieve significant gains for its business by rigorously carrying out its practices for customer satisfaction (Figure 30).
- ✓ Our Customers Around the World
 - USA
 - Czechia
 - Belgium
 - Slovakia



Figure 32. Our Steps of Action Plan to Ensure Data Security

○ **Data Safety**

- ✓ While sustainability for our business is intended to deliver long-term success from both environmental and economic and social angles, we also place great emphasis on data security.
- ✓ We rigorously protect information belonging to all our stakeholders.
- ✓ Therefore, our company manages this process by adhering to an action plan to ensure data security in the context of sustainability (Figure 32).

CONTACT INFORMATION



Address: Organize Sanayi Bölgesi 2002. Cadde No:3 26010
Odunpazarı/Eskişehir.



E-mail: info@epta.com.tr



Phone: +90 222 236 22 33



Web Site: <http://www.epta.com.tr/en>

CLOSURE