



# ANNUAL REPORT

—  
2023/12

We Care About Your Dreams...

# Table of Contents

ANNUAL.....	1
REPORT.....	1
TABLE OF CONTENTS.....	2
ABOUT US.....	3
OUR VALUES .....	4
AWARDS AND ACHIEVEMENTS .....	4
CERTIFICATES.....	4
BOARD OF DIRECTORS .....	5
CLUSTERS WE ARE MEMBERS OF .....	5
WHY MİA TECHNOLOGY?.....	6
ORGANIZATIONAL CHART .....	6
OFFICES & BRANCHES .....	7
1. MESSAGE OF THE CHAIRPERSON OF THE BOARD OF DIRECTORS .....	8
2. GENERAL INFORMATION .....	9
3. FINANCIAL RIGHTS GRANTED TO BOARD MEMBERS AND SENIOR EXECUTIVES .....	19
4. COMPANY ACTIVITIES AND ORGANIZATIONAL STRUCTURE .....	19
5. OPERATING MARKETS/SECTORS .....	46
6. DEVELOPMENT AS OF YEAR 2023.....	59
7. INCENTIVES BENEFITED BY THE COMPANY .....	62
8. QUALIFICATION, CERTIFICATION AND REGISTRATION DOCUMENTS OF THE COMPANY .....	64
9. OTHER SIGNIFICANT INFORMATION .....	67
10. CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS OF 31.12.2023 .....	71
11. CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME AS OF 31.12.2023 .....	73

## About Us

MIA Technology was established in 2006 in Ankara; It is an IT company with offices in the U.S., Qatar and Morocco. MIA Technology is listed on Borsa Istanbul s MIATK with a valuation of over \$1 billion. With more than 160 employees in different sectors such as Health Information Technologies, Software Solutions, Energy, Electro Mobility, Immersive Technologies and Security, MIA offers innovative and innovative solutions for the needs of its customers. In addition, MIA Teknoloji also has NATO and Facility Security Certificate and carries out various projects in this context.



Our company is also the founder of the electric mobility platform Tripy and renewable energy solution provider Enerjey. Our company continues to grow by actively operating in various locations around the world.

### Our Vision

To be among the leading companies in the IT sector in Türkiye and internationally by ensuring the satisfaction of our customers and employees. To produce innovative solutions with high added value with the Industry-Academy Cooperation model and to compete with foreign market actors.

### Our Mission

To be able to provide solutions for differentiating requests and needs with its domestic and national solutions, wide product range and original products. To set an example in customer satisfaction by providing high performance and quality service. In line with the new and inevitable realities brought by the information age, to produce informatics projects according to the needs of businesses with the identity of a solution partner. To carry out our Facility Management and Consultancy services in accordance with national and international legal regulations and standards.

## Our Values

The cornerstone of MIA Technology is its ability to deliver quality products, provide high-end services, and provide prompt support. The company aims to offer excellence to its customers at every stage and constantly develops innovative solutions in this direction.

## Awards and Achievements



Year 2022 Bilişim500 Awards



Year 2021 Bilişim500 Awards



Deloitte Technology Fast 50  
2021 Türkiye Winner



Year 2020 Bilişim500 Awards



**Ankara Ticaret Odası**

Ankara Chamber of  
Commerce Export  
Contribution



Year 2019 Bilişim500 Awards

## Certificates



Facility Security  
Certificate  
(National / NATO)



Military Factories  
Approved Supplier  
Certificate



ISO IEC 15504 /  
SPICE Lvl 2



EAL 4+



ISO 9001:2015



ISO 14001:2015



ISO 20000-1:2011



ISO 45001:2018

ISO 22301-2012

ISO 27001:2017

ISO 39901-2012

## Board of Directors



**Ali Gökhan  
BELTEKİN**

Chairperson of the Board of  
Directors



**İhsan ÜNAL**

MEMBER OF THE BOARD  
OF DIRECTORS



**Mehmet Cengiz  
BAĞMANCI**

MEMBER OF THE BOARD  
OF DIRECTORS



**Özgür ÇİVİ**

Independent Member  
of Board of Directors



**Ali YAZICI**

Independent Member  
of Board of Directors

## Clusters We Are Members Of



**Intelligent Transportation Systems Association of Türkiye:** An association established on March 15, 2016 within the scope of the National Intelligent Transportation Systems Strategy Document (2014-2023) and Supplementary Action Plan (2014-2016) initiated by the Ministry of Transport and Infrastructure in 2016 and allowed to use the word Türkiye with the approval of the Ministry of Interior on November 8, 2018, by gathering all stakeholders in the field of Intelligent Transportation Systems under one roof, to produce products and services in line with a harmonious cooperation and standards. contributes to the development of the sector by targeting.



**Teknokent Defense Industry Cluster:** TDIC was established with the aim of producing technology for international markets by meeting the national and critical needs of the Turkish Armed Forces in cooperation with domestic defense industry companies and universities. It supports internationalization and intra-cluster cooperation by bringing together large, medium and small-sized companies, and aims to ensure efficient use of resources by transferring the knowledge in the sector to other sectors.



**Cyber Security Cluster:** The Turkish Cyber Security Cluster is a project launched in 2018 and supported by the Presidency of Defense Industries and the Digital Transformation Office. The activities of the cluster are carried out by SSTEK A.Ş. and encourage cooperation by bringing together cyber security companies in Türkiye.

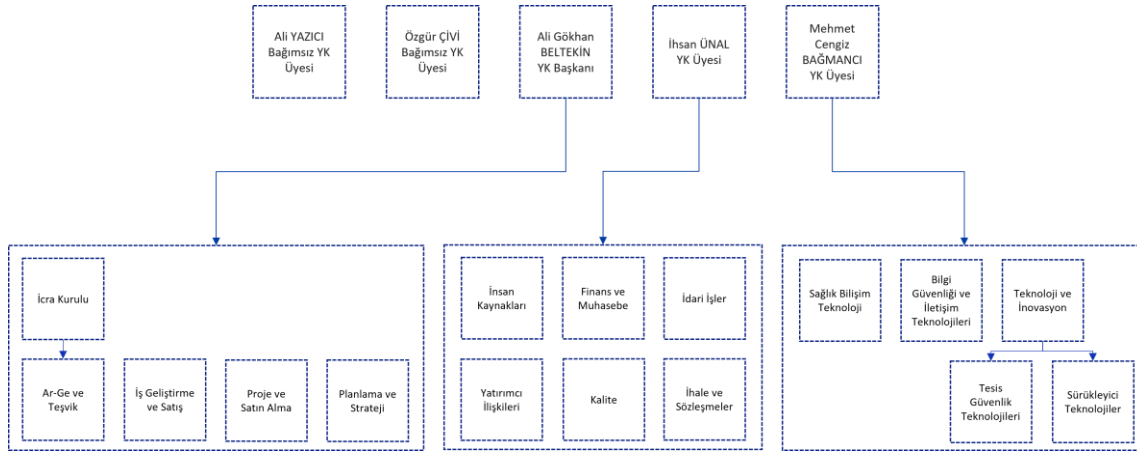
## Why MİA Technology?

MİA Technology stands out in the industry with its unique capabilities in providing quality products, high-level service, and prompt support. The company aims to meet the needs of its customers in the best way with its customer-oriented approach and constantly innovative solutions. Moreover, MİA Technology has carried out a wide range of works in different sectors and offers value to its customers with a wealth of experience and expertise thanks to this diversity. For this reason, the reason why MİA Technology is preferred in the sector is that it meets the needs of its customers in the most effective way and helps them optimize their business with its quality products, perfect service understanding and strong support system.

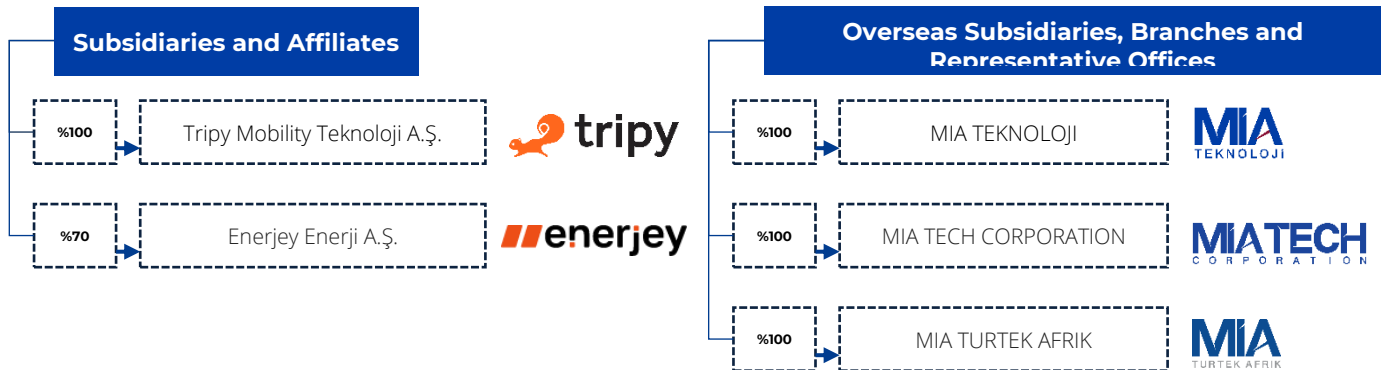
## Main Sectors

KİMLİKLENDİRME  
TEKNOLOJİLERİGÜVENLİK  
TEKNOLOJİLERİSAĞLIK BİLİŞİM  
TEKNOLOJİLERİAKILLI ULAŞIM  
TEKNOLOJİLERİYENİLENEBİLİR  
ENERJİ  
TEKNOLOJİLERİMETAVERSE  
TEKNOLOJİLERİSİBER GÜVENLİK  
TEKNOLOJİLERİ

## Organizational chart



## Offices & Branches



Establishment  
**2006**

Employee  
**+119**

Office  
**6**

Engineer Ratio  
**%65**

## 1. Message of the Chairperson of the Board of Directors

Dear Colleagues, Esteemed Business Partners and Stakeholders,

With the experience and knowledge we have gained in the past years, we have taken important steps in management processes and business development activities. In this way, we have signed important projects both in our country and abroad and we will continue to do so. Together with our experienced team, we, as MİA Technology, are working with great enthusiasm to create a sustainable understanding of technology by adopting the understanding of going further every day.

As MİA Teknoloji A.Ş., we aim to make new investments in the USA, Europe and the Middle East and North Africa regions and to produce visionary projects with new technologies. Going forward, we will continue this exciting journey with a focus on innovation and new technologies. We look forward to building a successful and happy future with you.

This message we want to share with you today is just the beginning. We wanted to share with you our excitement about new health investments and visionary projects. We would like to thank all our colleagues, business partners and shareholders who contributed to achieving these goals.

**Ali Gökhan BELTEKİN**  
Chairperson of the Board of Directors



## 2. GENERAL INFORMATION

### 2.1 Reporting Period

This report covers the period 01.01.2023-31.12.2023.

### 2.2 Information About the Partnership

#### MİA TEKNOLOJİ A.Ş.

<i>Year of Establishment</i>	2006-ANKARA
<i>Registered Capital Limit</i>	750.000.000 TRY
<i>Paid in/Issued Capital</i>	494.000.000 TRY
<i>Tax Office and Taxpayer ID Number</i>	Ankara Corporate Tax Office / 621 061 1649
<i>Trade Register Number</i>	225945
<i>Head Office Contact Information</i>	Gazi Üniv. Gölbaşı Yerleşkesi Bahçelievler Mah. 323/1 Cadde B Blok N10/50-B/03 Gölbaşı Ankara TÜRKİYE
<i>Phone</i>	+90 312 444 4 642
<i>E-Mail Address</i>	info@miateknoloji.com
<i>Website</i>	<a href="https://www.miateknoloji.com">https://www.miateknoloji.com</a>

<i>Subject of Activity</i>	Computer programming activities (coding customer specific software by software such as system, databases, network, web page etc.)
<i>Trading Market</i>	BIST Stars

## 2.3 Board of Directors, Company Directors and Employee Information

Members of the Board of Directors were appointed as a result of the general assembly meeting held on 25.04.2023.

First and Last name	Position	Term of Office
<i>Ali Gökhan BELTEKİN</i>	Chairperson of the Board of Directors	25.04.2023 – 25.04.2026
<i>Mehmet Cengiz BAĞMANCI</i>	MEMBER OF THE BOARD OF DIRECTORS	25.04.2023 – 25.04.2026
<i>İhsan ÜNAL</i>	MEMBER OF THE BOARD OF DIRECTORS	25.04.2023 – 25.04.2026
<i>Özgür ÇİVİ</i>	Independent Member of the Board of Directors	25.04.2023 – 25.04.2024
<i>Ali YAZICI</i>	Independent Member of the Board of Directors	25.04.2023 – 25.04.2024

### 2.3.1 Members of the Board of Directors and Their Resumes

**Ali Gökhan BELTEKİN - Chairperson of the Board (Founder and Shareholder)**

Born in Elazığ on July 25, 1982. Completed secondary and high school education in Elazığ and higher education in Atılım University, Computer Engineering Department. After completing university

education, he started working as a Software Specialist at Yüce Bilgi Sistemleri Company in 2004. In 2006, he founded his own company, MİA Teknoloji A.Ş., together with his undergraduate friends.

MIA Technology, which has been operating in the IT sector for 15 years, develops products for public spaces where transition security is critical with its unique innovation and R&D activities to meet the needs of its customers with its increasing experience.

In accordance with its Smart Campus studies, he conducted effective projects in Türkiye and abroad with its R&D studies in the process of providing domestic and national solutions to the General Directorate of Security, Student Selection and Placement Center, Credit and Dormitories Agency, Istanbul Atatürk Airport, Ziraat Bank, Vakıfbank, Eti Maden, Ministry of Interior, University Hospitals, State Supply Office, Havelsan, Gendarmerie, National Library, for differentiating requests and needs within its wide product range and original products.

In line with the new and unavoidable realities of the information era, it maintains its solution partner identity and mission of producing information projects specified for company needs throughout the Pandemic (Covid 19) process. He has been carrying out Pandemic Product Family Works for Cleanmask-Tech, MİA-YTA Thermal Camera and Mask Detection, MİA-Hygiene Tunnel.

He has been contributing to the development of Türkiye in the field of informatics with studies developed in the fields of IOT, Smart and Secure Facility Management Systems, Image Processing Technologies, Biometric Person Identification Technologies, Deep Learning, and Artificial Intelligence Technologies. In addition to R&D activities, business development activities on an international scale and the works carried out for Germany, America, Italy, England, France and Russia, an office has been opened in Qatar and Teknopark, forming the first international branch of MİA Technology.

In addition to his business life, he also takes part in Atılım University Industry Advisory Board and supports Industry-Academic Cooperation. He is married and has two children.

#### **İhsan ÜNAL - Board Member (Founder and Shareholder)**

Born on January 8, 1981 in Şanlıurfa. Completed secondary and high school education in Şanlıurfa and higher education in Atılım University, Computer Engineering Department. After completing university education, he started to work as a Software Specialist on the Social Security Board in 2004. In 2006, he founded his own company, MİA Teknoloji A.Ş., with his undergraduate friends.

As the first example of the studies carried out with the aim of "providing solutions for the requests and needs that differ with our domestic and national solutions, wide product range and original products", which the managers have adopted a mission since the day it was founded, it started to operate with the "Dormitory Management Software" for the Türkiye-wide dormitories of the Credit Dormitories Institution. He worked as a Coordinator in the project where 20 Zones, 494 dormitory campuses, 2720 Clients, 4800 optical readers and 4 million transactions were carried out in order to ensure entry and exit tracking to KYK dormitories and to use rights.

Operating in the IT sector for 15 years, Mia Technology provides services in the fields of Integrated Health Information Management System, Biometric Identity, Recognition and Control Systems, Smart and Safe Facility, Building and Campus Solutions, Public Security, Critical Zone and Soft Target

Protection, e-Identity Projects, Payment, Card Solutions and Fintech, Data Analysis and Big Data Management, Cyber Security for public institutions.

In MİA Technology, which is one of the leading companies in Türkiye and the International Information Sector, the management of all administrative processes in the process of producing national and international certified technologies with the vision of competing with the players of foreign market and producing innovative solutions with high added value with the Industry-Academy Cooperation model ensures the successful execution of the projects by ensuring the management of quality standards and budget planning from the tender processes of the projects.

In addition to his business life, he also takes part in Atılım University Industry Advisory Board and supports Industry-Academic Cooperation. He is married, and has one child.

### **Mehmet Cengiz BAĞMANCI - Board Member (Founder and Shareholder)**

Born on May 4, 1979 in Şanlıurfa. Completed secondary and high school education in Şanlıurfa and higher education in Atılım University, Computer Engineering Department. After completing university education, he worked as a Software Specialist in private companies in 2004. In 2006, he founded his own company, MİA Teknoloji A.Ş., with his undergraduate friends.

In line with the Smart Campus studies, he conducted effective projects in the process of providing domestic and national solutions to the General Directorate of Security, Student Selection and Placement Center, Credit and Dormitories Agency, Istanbul Atatürk Airport, Ziraat Bank, Vakıfbank, Eti Maden, Ministry of Interior, University Hospitals, State Supply Office, Havelsan, Gendarmerie, National Library, for differentiating requests and needs within its wide product range and original products.

Together with the software team, he worked as the Project Manager in the process of completing the integration works in the KYK E-Yurt Biometric Control Project, Ziraatbank Biometric Safe Room Project, ÖSYM Smart Campus Project, BEOGS E-Gate Project, Pizzy Project, Face-Id Facial Recognition Project, Hospital Information Management Systems-HBYS projects, He has been continuing his work during the pandemic process with the software team working on the Pandemic Product Families of Cleanmask-Tech, MİA-YTA Thermal Camera and Mask Detection, MİA-Hygiene Tunnel.

In addition to his business life, he also takes part in Atılım University Industry Advisory Board and supports Industry-Academic Cooperation.

### **Özgür ÇİVİ - Board Member**

Born in Ankara on 20.06.1981, Özgür ÇİVİ is married and has one child. Graduated from Atılım University, Department of Business Administration in 2004, Çivi completed master's degree in Health Management at Hacettepe University.

Starting his career in 2006 as an assistant auditor at MAZARS Denge Ankara Denetim ve Yeminli Mali Müşavirlik A.Ş., Çivi served s Accounting Unit Manager at Koçak Group of Companies in 2006-2007.

Mr. Özgür ÇİVİ started to work in the sales field as of 2007; and employed as Sales Manager between 2007-2011 in İncekara Holding and between 2011-2014 in Kurt & Kurt İth. İhr. Ve Müm. A.Ş. as Sales and Project Manager.

Between 2014 and 2016, he has served as a Senior Sales Manager at Türk Philips Ticaret A.Ş. Then, in 2017-2018, he worked as the Operations and Purchasing Director at Qatar Turkish Hospital in Doha, Qatar.

In 2018, he assumed the position of General Manager in charge of Medical Affairs in the Gaziantep Integrated Health Campus project carried out in partnership with Kayi – Webuild Spa J.V., and then in 2021, he served as the General Manager in the Ankara Etlik City Hospital Project, which was built as the largest hospital in Türkiye in partnership with Astaldi – Türkerler. He has undertaken serious responsibilities such as developing strategies in order to achieve the short and long-term targets in health projects, providing national and international consultancy, managing product purchases in line with his experience in medical product competencies, and managing all turnkey processes within the scope of medical operations.

Mr. Özgür Çivi has been serving as an Independent Board Member at MIA Teknoloji A.Ş. since 2021.

### **ALİ YAZICI - Board Member**

Born in Ankara on 14.05.1950. Ali Yazıcı, graduated from the Department of Numerical Analysis and Applied Mathematics of Middle East Technical University in 1972, completed his master's degree in Mathematics at METU in 1974. Continuing his education in Canada, Yazıcı completed his PhD in Computer Science at the University of Waterloo.

Performing researches in areas such as big data analysis, database management, data structures and programming languages, web-based distance education, scientific information processing, Yazıcı is an expert in SQL and ORACLE database systems, web design, C, HTML, Java, PHP, XML and Python.

Ali Yazıcı, who served as a faculty member at METU between 1979-1983, then became a faculty member at Yarmouk University in Jordan and Sultan Qaboos University in Oman. In 1988, he received the title of associate professor at METU and returned as a faculty member at the Department of Computer Engineering. Having been a professor since 1994, Yazıcı worked at METU, Atılım and TOBB universities, respectively.

Today, he is a faculty member in Atılım University Software Engineering Department. Ali Yazıcı has worked in numerous projects for more than 45 years at the academy and has been merited with several awards such as the WALL awarded by IBM and the first prize with the "Lifelong Learning and Non-Formal Education" project in the Education and Research Association.

Ali YAZICI began serving as Independent Board Member at MİA Teknoloji A.Ş. in 2021.

## **2.3.2 Members of the Board of Directors, Authority and Limitation of Senior Executives**

The Chairperon of the Board of Directors, members and senior executives of the company exercise their authorities specified in the relevant articles of the Turkish Commercial Code and the Company's Articles of Association.

### 2.3.3 Board Committees

In order to comply with the "Corporate Governance Communiqué" published by the Capital Markets Board, the committees were re-established with the Board of Directors Decision dated 25.04.2023 and numbered 2023/19.

#### Audit Committee

The Audit Committee supervises the accounting system of the company, disclosure of financial information to the public, independent audit and the operation and effectiveness of the company's internal control and internal audit system. The selection of the independent audit institution, the initiation of the independent audit process by preparing independent audit contracts and the work of the independent audit company at every stage are carried out under the supervision of the committee responsible for the audit. The committee responsible for the audit convenes at least four times a year, at least once every three months, and the meeting results are recorded in the minutes and submitted to the Board of Directors. Decisions taken in committee meetings are signed and archived by the members of the committee after they are made in writing. The Audit Committee informs the Board of Directors in writing of the findings and suggestions it has reached in relation to its duties and responsibilities.

First and Last name	Position	State of Independence
<i>Özgür ÇİVİ</i>	Chair of Audit Committee	Independent Member
<i>Ali YAZICI</i>	Member	Independent Member

#### Early Risk Detection Committee

The purpose of the Committee is to make suggestions and recommendations to the Board of Directors on the identification, definition, prioritization, monitoring and review of strategic, financial, and operational risks and opportunities that may affect the activities of the Company; management of these risks and opportunities that may be exposed in parallel with the company risk profile and taking into account in reporting decision mechanisms. Committee meetings are held at least 3 times a year and decisions are taken unanimously by the attendees. Decisions taken in committee meetings are signed and archived by the members of the committee after they are made in writing.

First and Last name	Position	State of Independence
---------------------	----------	-----------------------

<i>Özgür ÇİVI</i>	Chair of Early Risk Detection Committee	Independent Member
<i>Ali YAZICI</i>	Member	Independent Member
<i>Mehmet Cengiz BAĞMANCI</i>	Member	Non-Independent Member

### Corporate Management Committee

The corporate governance committee determines whether the corporate governance principles are applied in the company, the justification if not applied, and the conflicts of interest that occur due to not fully complying with these principles, and makes recommendations to the board of directors to improve corporate governance practices and monitors the work of the investor relations department. The Committee also assumes the duties of the Nomination Committee and the Remuneration Committee, which are included in the regulations of the Capital Markets Board. In principle, the committee convenes three times a year and, if deemed necessary, without waiting for this period, and takes decisions unanimously. The decisions taken in the meetings are made in writing, signed and archived by the members of the Committee.

First and Last name	Position	State of Independence
<i>Özgür ÇİVI</i>	Chair of Corporate Management Committee	Independent Member
<i>Ali YAZICI</i>	Member	Independent Member
<i>Mehmet Cengiz BAĞMANCI</i>	Member	Non-Independent Member
<i>İlker ATIKMEN</i>	Member	Investor Relations Manager

### Internal Information Access List

First and Last name	Position
<i>Ali Gökhan BELTEKİN</i>	CHAIRPERSON OF THE BOARD OF DIRECTORS

<i>İhsan ÜNAL</i>	DEPUTY CHAIRPERSON OF BOARD OF DIRECTORS
<i>Mehmet Cengiz BAĞMANCI</i>	MEMBER OF THE BOARD OF DIRECTORS
<i>Ali YAZICI</i>	INDEPENDENT MEMBER OF THE BOARD OF DIRECTORS
<i>Özgür ÇİVİ</i>	INDEPENDENT MEMBER OF THE BOARD OF DIRECTORS
<i>Arzu ŞAHDALAMAN GÜL</i>	FINANCIAL ADVISOR
<i>Ali Osman EFLATUN</i>	CAP AUDITOR
<i>Osman ÇEBİN</i>	DIRECTOR OF HEALTH INFORMATION TECHNOLOGIES
<i>Elif ÖZDEMİR</i>	PROCUREMENT AND CONTRACT SPECIALIST
<i>İlker ATIKMEN</i>	INVESTOR RELATIONS MANAGER

### 2.3.4 Number of Meetings of the Board of Directors during the Term and Participation of Members

Our Board of Directors of the Company held 36 (thirty-six) meetings within the period of 01.01.2023-31.12.2023. The meeting of the Board of Directors was held with the attendance of all our members.

### 2.3.5 Assignments Executed Outside the Company by the Members and Directors of the Board of Directors

The assignments of the members of the board and executives of the company outside the company are provided below.

First and Last name	Company Title	Position	Shareholder Rate (%)
<i>Ali Gökhan Beltekin</i> (Representing Mia Teknoloji A.Ş.)	Tripy Mobility Teknoloji A.Ş.	Chairperson of the Board of Directors	100



### 2.3.6 Changes Made to the Articles of Association during the Period

Approved at the 2022 Ordinary General Assembly Meeting held on April 25, 2023, the procedures regarding the increase of our Company's registered capital ceiling from TRY 150,000,000 to TRY 750,000,000 and the determination of the registered capital validity period as 2023-2027 were registered in the Ankara Trade Registry of the Republic of Türkiye on 28.04.2023 and announced in the TTSG [Turkish Trade Registry Gazette] No. 10821.

Our company's capital increase of 1,200% was realized and its capital increased to 494,000,000 TRY and was registered by the trade registry directorate with the gazette dated 28.11.2023 and numbered 10967.

### 2.3.7 Information Related to the Personnel

As of 31.12.2023, the number of employees of the Group is 119.

## 2.4. Capital of the Company, Shareholding Structure and Privileged Shares

### 2.4.1 Capital

The registered capital ceiling of our company is 750,000,000 TRY and the issued capital is 494,000,000 TL.

### 2.4.2 Shareholding Structure

Shareholders	Share Rate (%)
<i>Ali Gökhan BELTEKİN</i>	24
<i>İhsan ÜNAL</i>	24
<i>Mehmet Cengiz BAĞMANCI</i>	3
<i>OTHER</i>	49
<i>Total</i>	100

### 2.4.3 Privileged Shares

A) Privileged Share Amount: 65.000.000,00-TL

B) Statement on the Voting Rights of Privileged Shares: Group A privileged shareholders have 5 voting rights for each share.

## 2.5 Direct or Indirect Subsidiaries of the Company and Share Ratios

The information regarding the subsidiary included in the group and included in the consolidation in 2022-2023 is as follows;

Affiliate Name	Share Rate (%)	Field of Activity
<i>Tripy Mobility Teknoloji A.Ş.</i>	100	Micromobility
<i>Enerjey Enerji A.Ş.</i>	70	Energy

Tripy Mobility Teknoloji A.Ş. ("Tripy") was established on October 5, 2022 and its main field of activity is in the field of micromobility. Tripy is an "Electric vehicle sharing platform" that is sustainable and has set out to meet the last mileage needs of users. Established as a 100% subsidiary of MİA Teknoloji, Tripy provides users with electric bicycle rental for the first time in its fleet. Thus, it is the first private company in Türkiye to operate an electric bicycle. The difficulty and cost of accessing energy in recent years has led people to use electric vehicles. Tripy aims to increase the range of electric vehicles rented in its fleet with an environmentalist approach that will reduce traffic congestion and allow people to use vehicles when they need them. Tripy, which has an electric vehicle charging station operating license, is expanding its fields of activity to expand and facilitate the use of electric vehicles. Tripy is currently running an electric bike sharing service in Eskisehir and is negotiating to operate it in other cities.

The legal headquarters of Tripy is Bahçelievler Mah. 323/1 Cad. C Blok Gazi Üniversitesi Teknokent Binası No:10/50c İç Kapı No:101 Gölbaşı / Ankara.

As of 31 December 2023, the Company's paid-in capital is TRY 10.000.000.

Affiliate Name	Share Rate (%)	Field of Activity
<i>Enerjey Enerji A.Ş.</i>	70	Energy

Enerjey Enerji A.Ş. was established as announced in the Turkish Trade Registry Gazette dated 26 April 2023 and numbered 10819 in partnership with MİA Teknoloji A.Ş. to operate in the field of energy and

make investments in this field. The main field of activity of the Company is to provide turnkey engineering, procurement, construction and operation & maintenance services in the field of energy, as well as providing software solutions with artificial intelligence in the renewable energy sector. The main capital of the Company is 1.000.000 TL.

Enerjey's legal address is Bahçelievler Mahallesi, 323/1 Cadde, C Blok, Gazi Üniversitesi Teknokent Binası No 10/50c İç Kapı No: 129 Gölbaşı/Ankara.

The establishment and registration procedures of Nouzi Energie S.r.l., which Enerjey Enerji A.Ş., a subsidiary of the Company, applied for as a 100% Enerjey subsidiary in Bucharest, Romania, in order to develop Photovoltaic Solar Energy and Electricity Generation Plant (spp) projects, to carry out joint venture projects with equity and/or international finance and investment institutions, were completed on 11.10.2023.

### **3. FINANCIAL RIGHTS GRANTED TO BOARD MEMBERS AND SENIOR EXECUTIVES**

In the period of 01.01.2023-31.12.2023, the total gross remuneration paid to the members of the Board of Directors and senior executives is 5,915,357.87 TL.

## **4. COMPANY ACTIVITIES AND ORGANIZATIONAL STRUCTURE**

### **4.1 General Activities of the Company**

In the article 3 titled "Purpose and Subject" of the Company's articles of association, the company's field of activity is summarized as follows;

To design, produce, conduct maintenance, and sell all kinds of systems, related to computer and information technologies as well as information security, to provide e-signature and certificate regarding an e-signature, to serve as a software and system integrator, to do consultancy and engineering, education and counseling as well as industrial design, to conduct any type of biometric system design (inc. fingerprint, iris, vein of face ID), to build biometric system webs, to manufacture software, to conduct the sale, maintenance, and technical support regarding these systems,

To carry out all kinds of training, research, and development activities related to information systems, to design all kinds of security systems, to set up safety webs, to develop software, to provide maintenance, repair, sales, support, and technical services regarding these services;

The actual field of activity of the company can be defined as follows;

The company has been operating in the fields of R&D, Innovation, Software Development, Integration, and Solution Providing in Gazi Teknopark since 2006.

The Company that is a holder of the certificates titled ISO IEC 15504/SPICE Lvl 2 Software Development Maturity Certificate, ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System, ISO 45001:2018 Occupational Health and Safety Management System, ISO 27001:2013 Information Security Management System, ISO/ IEC 20000-1:2018 Information Technologies Service Management System, Facility Security Certificate NATO & National,

24/7 Call Center, Support and SLA Management, and Supplier certificates approved by Military Factories, have placed a high value on R&D studies, providing innovative software and projects, and actively collaborating with public institutions and private sector organizations in Türkiye, as well as the world's leading companies in the international arena. Furthermore, it has been serving as a solution partner for a variety of institutions and organizations, providing tailor models and turn-key solutions.

With the MIA-MED Hospital Information Management System (HIMS) software, the company, which continues its collaboration with important university hospitals in the field of health, contributes to the creation of high standards manageable hospitals that cover the needs of the health sector, in accordance with the competitive environment and technological developments of the day. In addition, the company has been collaborating with many institutions in the sector and offering systems that can significantly solve a facility's needs by providing an infrastructure that can be developed utilizing PizzyKurum- Integrated Facility Security and Control Systems software.

The company has been serving as a software developer, manufacturer, and system integrator in many sectors, especially in the IT and health sector, with companies with significant brand value in Türkiye such as Aselsan, Havelsan, İnnova, Türksat Bilişim, NEC.

The company is an IT company established in 2006 to operate in the field of software. Since its establishment, it has been developing software products for the practical field requirements of the sector in the IT sector and has been serving public and private organizations in many areas.

## 4.2 Information on the Investment Made by the Corporation During the Relevant Fiscal Period

### Facial Recognition and Matching System Created with Native Image Processing and Pattern Recognition Algorithms

Face detection and matching software, which are the most important pillars of face recognition systems, will be developed with the project. The output of the project will be facial recognition and facial recognition software for an innovative and completely local facial recognition system. Both national achievements and commercialization successes of the project will be achieved, which will serve to many different sectors such as security, personnel follow-up, statistics generation, decision support, and identification.

In addition, the system aims;

- To produce the software required to develop a domestic face recognition system,
- To produce a quality system with limited and low resources,
- To produce a system suitable for cyber security and data security,
- To develop a system that can serve nationally and internationally.

### Biometric Verified Video Conferencing System

When internet access and camera are available, the system will perform face recognition at certain intervals with the conference 1-1 method on the platform. In the absence thereof, access to the software will be available by fingerprint or face recognition according to the transaction device used (mobile, tablet, pc). In addition, with today's technology, an innovative and safe

solution will be offered on issues such as distance education, remote diagnosis, online exam, in-house interviews, witness listening, and e-judgment.

With the project we plan to realize, it is aimed to reduce the cost for the following areas of use, to ensure that the right person is processed, and to offer a rapid and easy solution.

- Job interviews,
- Human Resources Interviews,
- Intercompany Negotiations,
- Inter-Branch Meetings,
- Meetings with Field Staff,
- Official Meetings,
- Distance Education
- Online Exam Systems,
- E-Judicial Systems, (Witness Hearing, Remote Interrogation)
- With a software to be developed on subjects such as Medicine-Remote Diagnosis, it will be possible to bring people together in a different location and to verify the video conference with face recognition.

The remote health information system, where the identification process of the patients is carried out through biometric verification, can provide a doctor-patient examination interview in an interactive environment. In this way, the physician can access all health data of the patient and make the necessary evaluation.

### **MİA Vehicle Identification Solutions**

It is the development of a bundle software that can perform all identification processes on the vehicle on a single platform. It aims to develop a system that can perform license plate recognition, vehicle make-model and color recognition, under-vehicle imaging, passenger biometric face recognition on both a fixed campus and a fluid path and that is matched with the system integration authorized units. The license plate identification system is a system in which the white or black lists created by the vehicles to be added individually or collectively and the license plates coming from the cameras are checked, all transitions are recorded, transaction inquiry can be made on the basis of license plate retrospectively and the results can be reported, vehicle registration inquiry can be made with the license plate and the list and other information of the vehicle can be changed.

Vehicle make-model and color recognition system is a system for detecting make, model and color information through the images received from cameras.

Under-vehicle imaging systems are systems based on the imaging of the under-vehicle with the camera at a passage point and the comparison of this image with the source image (former or known).

Biometric facial recognition, on the other hand, shall be performed by obtaining the facial information of the user in the driver's location and pre-processing, facial identification and identification shall be performed.

### **Mobile Multiple Biometric Recording Unit Development**

The product we plan to realize within the scope of the project is to realize a mobile unit that will enable matching on both the registration and the server for many different applications thanks

to a platform structure; face recognition, iris recognition, fingerprint recognition and obtaining identity information with MRZ technology.

The project to be developed is to produce a flexible and reliable mobile solution that can work in areas where identification (especially biometric) is important, such as border security, document security, banking and insurance transactions.

With the developing unit, all this biometric and encrypted data will operate in a standard matching logic with the help of a server communication. Thanks to its mobile structure, it will be free from restrictions such as power, data line, utilization area and will be able to work nationwide and even worldwide thanks to cloud architecture.

### **Cleanmask-Tech Controlled Mask Dispenser and Hand Sterilization Point**

The device rapidly performs the procedures of mask delivery, fever measurement and hands disinfection with steam without contact with card reader, barcode reader, coin etc. methods. This project, which will be produced with domestic and national resources;

- Will be able to provide services directly to the person without the need for an intermediary agency or organization.
- Upon request, will be able to work integrated with other applications (e-government, e-municipality, etc.) and
- It will be self-served, namely no need for an assistant staff.
- It will allow you to directly get masks without any intermediary contact thanks to the voice command.
- It also has integrated operation with PACS and access control system.

Areas of Use;

- Shopping Malls
- Educational institutions
- Public and Private Sector
- Airports
- Public Spaces, etc.

Every patient who has a registration or appointment in HBYS can benefit from the services provided by CleanMask-Tech through the code given by the system.

The personnel registered in HBYS can also benefit from the card information.

Health data obtained from the CleanMask-Tech system (body temperature measurement, mask acquisition, hand disinfection) can be automatically transferred to the HBYS examination system.

### **MİA Health Integration System**

Hospital Information Management Systems (HIMS) required for the operation of hospitals; Transactions between hospitals and other health institutions (transfer, laboratory external service, assignment, etc.); Transactions between health institutions and government institutions (Medula, SGK Progress, 112 Emergency, Medicine Tracking System; Organ Donation, AFAD, CBS, e-invoice, Physician Control Systems, Central Health Appointment System-183, Blood Bank, etc.),

transactions between patients and health institutions (e-pulse, laboratory-radiology-pathology imaging, etc.); Transactions between healthcare institutions and private companies (e-procurement, tender, stock, etc.) are presented in an easy-to-follow and reportable way on a single platform.

### **Depth Analysis and Obstacle Detection with Image Processing for Aircraft**

In the project, unmanned aerial vehicles will be provided with obstacle detection feature based on automation and learning. With the platform we want to develop, obstacle detection will be performed with automation and a decision support mechanism will be provided. In addition the innovative aspects are as follows; remote mapping and virtualization with the time of flight camera, an automation that is able to learn and obtaining geographical data for special scenarios. It also provides some innovative outputs in terms of security of critical areas, border security, flight sites and object detection. Especially for GIS systems, a new method will be introduced in special and challenging fields. Another innovative aspect is the elimination of a missing system for defense industry and national aviation.

### **Traffic Control System Project**

Within the scope of the project, a traffic control system software consisting of web-based application, decision support module and server application will be developed. TCS project is an integrated system that includes vehicle counting, license plate recognition, instantaneous speed control, red light violation detection, average speed control, safety lane violation, smart intersection system and parking systems. The software to be developed will process the data (camera, radar, infrared sensors) received from different sensors and will be able to create reports in line with the data obtained and share them in the application center. In this context, reports may have content such as date, time, scene, license plate information, number of vehicles, traffic density, traffic density direction, image and/or video.

### **Multi Biometric Person Recognition System with Remote Temperature Measurement**

It is a system that can be integrated with remote contactless temperature measurement and mask control transition systems. It ensures that the personnel whose attendance checks are carried out in the public and private sectors are also subjected to daily temperature measurements and mask control and recorded and reported. If the detected body temperature is above a certain level, the system can give a sound alarm and warning and send an e-mail or SMS to the desired points. The innovative features of the system we have developed:

- Personnel Attendance Tracking, Face Recognition, Temperature Measurement, Mask Tracking, Alarm and Warning Mechanisms and Passage Control are the only domestic products offered together.
- Tracking 8-10 people at 30 FPS speed at the same time (up to 6 people in competing products)
- Costs 60% less compared to its overseas counterparts.

Through the system, in accordance with the COVID-19 Regulation, fever measurements are made and recorded at the entrance of the employees to the hospital.

This system, which is created to meet these and similar needs, meets the necessary security procedures.

Body temperature and mask control of the patient and personnel who want to enter the hospital are immediately detected when the person approaches the relevant limit. If the person's body temperature is within the accepted value range, the person's passage through the system is ensured. If the body temperature of the person is above the accepted values, a warning is made on behalf of the relevant person through HBYS and the position and persons to be informed are informed of the situation.

### **MIASOFT: Development of Multimodal Biometric Fusion Based Authentication and Identification System Software**

Authentication (1: 1) and identification (1:N) functions will be provided within the scope of fusion to be realized in line with multimodal biometric (Face, Fingerprint, Finger Vein Print) data with the project. The fusion to be performed in line with the data obtained from different biometrics will be performed at the attribute level (Feature Level), at the matching value level (Score Level) and at the decision stage level (Decision Level). A more effective biometric system will be revealed in line with the values of Accuracy, False Acceptance Rate (FAR) and False Rejection Rate (FRR) regarding the authentication and identification processes with biometric fusion.

The Patient Verification Interface in the Patient Kiosk Information System is used in this infrastructure.

The same infrastructure is used in HBYS Personnel Tracking Systems and Health Approval Mechanisms (Prescription doctor approval, order doctor and nurse approvals, health board examination events, etc.).

### **Image Processing and Pattern Recognition Project in Big Data with Deep Learning Layers**

Great progress will be achieved on the detection and estimation-matching times of the machines through deep learning and big data. Thanks to the database created, a large amount of data will be scanned very quickly and the requested operation can be performed faster and easier. Deep learning, which supports the learning mechanism of machines, plays a major role in analyzing the acquired data and accelerating the processes. Thanks to the data volume, data diversity and data loading speed, sector needs can be scenarioized faster and solutions or innovations can be brought.

With this infrastructure, interaction controls such as drug-drug, drug-symptom, drug-diagnosis, drug-laboratory result, drug-allergy, drug-nutrient are provided in Patient Clinical Decision Support Systems. Apart from this, Smart Stock Analysis Solutions in Demand Management Systems are offered through this infrastructure (deep learning).

### **Integrated Modern Health Informatics Layers Project**

It is necessary to determine, supply, stock, preserve, distribute, use the needs related to the drugs and medical consumables used in the provision of services in hospitals and to use the barcode system for an effective material management of these processes and to implement it by supporting it softwareally and to improve the invoice unit service.

With the Integrated Modern Health Information Layers Project, it is aimed to develop and implement the hospital invoice and stock management system for the accurate processing of examinations, interventions, drugs and consumables into the system in order to ensure the lossless operation of the Hospital Information Management System (HIMS) and to increase



income, as well as to ensure the correct operation of the statistics received by the lecturers for scientific research projects through HIMS.

#### Development of a Reliable System for Rapid and Secure Biometric Authentication Project

Our primary goal within the scope of this project is to introduce a new approach to the authentication methods that companies carry out during the recruitment process by integrating Optical Character Recognition (OCR) and Biometric Identification (BKT) technologies.

The Development of a Reliable System for Rapid and Secure Biometric Authentication project covers sectors that include all business profiles. Biometrics and optical character recognition activities will be used together in authentication. Recruitment and authentication activities will be based on automation, affordable and high accuracy. It will provide a different solution compared to the solutions currently used.

This infrastructure is used to prevent false identity declaration in the Authentication process, which is actively used in the HBYS Patient Registration System.

#### Personalized Medical Cabinet Project

With the development of software and hardware within the scope of the project, it will develop a personalized medical cabinet that can be used in all health institutions, can work fully integrated with existing hospital information management systems, and has a decision support mechanism with unique parameters. With the realization of the project, this device, which is not currently used in hospitals in Türkiye, will contribute to improving patient care processes, accelerating the hospital workflow process, facilitating and recording drug follow-up, and preventing human-induced negativities in the patient care process.

Personalized Medical Cabinet Project is offered to the right patient as an integrated solution to HBYS Clinical Order and Pharmacy Systems with the aim of applying the right drug, the right dose and the right time mentality.

#### Automated Exam Evaluation System Project with Machine Learning and Natural Language Processing Techniques

The project is the development of a software system that automatically evaluates and scores the classical exams organized in SSPC (Student Selection and Placement Center), MoNE and their affiliated institutions and organizations by eliminating the human. The software will be developed with natural language processing and artificial intelligence technologies and will be the first in its field in Türkiye.

With the realization of the project, it is planned to benefit from the classical exams that millions of students sit every year in order to reduce the workload in the evaluation process, to reduce the costs caused by the human factor by 40% and to minimize the errors caused by human intervention.

Through the project, it allows the digitalization of the data of the patients that are not in the digital environment by using the infrastructure of this system and its transfer to the HBYS digital archive.

### Contactless Kiosk Project

During the pandemic crisis, it is observed that digital infrastructure has a great importance in many areas in terms of public health management. Digital infrastructures need to be strengthened to reduce the effects of today's and possible future crises.

With the kiosk we will develop, it will be able to easily control the interface of the person with its sensors that detect hand movements, transfer the videos, images and texts in the system to the person, and provide information without disturbing the environment thanks to the speaker system that provides linear audio transmission.

This project provides solutions to many issues such as identifying the patient through identification, making appointments through sensors that detect voice and hand movements, viewing laboratory results, viewing radiology reports and taking the unit order.

### Autonomous Cleaning and Disinfection Robot

Thanks to the project; it will be able to be used in closed and contaminated risk areas, shopping malls, workplaces, campuses, institutions, hospitals, operating rooms, dining halls, etc. in areas where high sterilization is needed. The Sterilization Robot, which will be a fast solution partner in pandemic problems, will play an active role in managing crisis moments and sterilization measures.

The project reports the areas completed by carrying out the disinfection procedures according to the building, floor, room, operating room, unit plans in HBYS. It provides continuity by monitoring the stock level of the materials required to maintain the cleaning and warns the relevant units through HBYS.

### Mia-Tech Project

The Mia-Tech project targets all works that cannot be managed by traditional methods and will also be a solution that will improve the processes of campuses, public institutions, banks, shopping centers, university and city hospitals, prisons, factories and private enterprises, which are managed inefficiently and have a high number of employees and visitors due to the manual processes.

The group will develop solutions that will increase the efficiency and profitability of the institution by combining the needs and requirements with the quality of service in the departments of the institution outside the main fields of activity and aiming to meet all the needs of many institutions end-to-end with the project.

The solution to be developed will be customer-oriented, thus ensuring that all processes that directly affect the benefits of the organization are structured and managed in the best way. MIA Tech will be the decision support mechanism for predicting the situation after the change and determining the risks by being in a structure that will allow the evaluation of the current situation.

By making use of the infrastructure of this project, it provides data to the relevant financial reports by conducting income-expense analysis for all units of the hospital with the Financing System offered through HBYS.

### Integrated Image Processing Based Production Line Quality Control with Cloud Integration Project;

The aim of the Group with the project is to develop an adaptive image processing system that allows instantaneous, quality control, fast, contactless and remote measurement, object recognition and defect-error detection on the line and to integrate it into the quality control processes in the production line.

Remote accessibility of the system to be developed with cloud integration will ensure the secure traceability of the system data and even provide remote use and control capability. Nonconformities (dimensional, structural and tissue incompatibilities) seen in production lines for different sectors shall be detected and sorted at the part level with a generalizable production line automation tool that can perform image processing-based measurement and evaluation.

With the project output product, it is aimed to increase the use of technology in production by enabling enterprises to increase capacity and efficiency in production, to make precise measurements and to bring products close to perfection together with the end consumer.

### **MIA HealthCare**

As a Group, a project will be developed that will respond to the demands of the Ministry of Health, can perform income and expense analysis on a clinical basis, has a decision support mechanism, allows data exchange, can be integrated with other projects and aims to improve all processes from internal management of in-hospital processes to resource management. The system we will develop will be fast, safe, user-friendly, with all modules on a single platform, decision support mechanism and high performance.

### **Augmented Reality Based Mobile Application Development Project for Informative Product Content**

With the project, an application will be developed to present the advertising/promotion/information stages of the product or brand through AR technology. Thus, companies will promote their brands or products with AR application.

Augmented Reality also has the potential to be used very efficiently in the field of health. Regarding this issue, the project has a potential that enables pre-modelling of surgeries and simulation of the operation to the surgeon using the Augmented Reality infrastructure and radiology visuals.

### **Virtual Experience for Museums - V-Rex (Virtual Experience for Museums)**

The V-Rex project will adapt the processes of museums that cannot use digital assets to the developing technology, reduce the loss of income due to the Covid-19 pandemic, and provide a solution to increase the number of online visitors by increasing awareness. The V-Rex concept will allow users to log in to the app on different platforms, buy tickets online, or directly enter the museum of their choice. Users will be able to virtually walk around the museum with motion controls, view any item 360°, and read the written information placed next to the item with audio or AR.

### **Development of Mass Behavior Analysis and Reporting System for Smart Cities Concept**

With the project, a system will be developed that utilizes deep learning methods that will replace standard Computer Vision and image processing techniques that are inadequate in terms of

mass behavior analysis in places such as squares and temporary assembly areas where people are crowded.

Since human communities have different dynamics and psychological characteristics, behavior analysis is a challenging solution. In most GIM scenarios, there is a need to identify, count, and group community behaviors. The solution we have developed in this context is divided into five sections:

- Human counting / density estimation
- Human tracking
- Behavior understanding or anomaly detection
- Determination of mood
- Abnormal human voice detection

The system developed in this context will provide information to the security organization on the detection of the number of people in the regions where there is a density of people, the tracking of this person if there are people wanted, emotional state, anomaly and abnormal human voice detection, and possible hazards and/or threats.

### **Development of AR (Augmented Reality) -based Remote Maintenance System for Remote Field Support Activities**

The main objective of the project is to develop a service-oriented system that implements AR technology for remote maintenance, ensuring cooperation between the on-site technician and the manufacturer. The proposed system includes methods for end-user recording of installation/failure/maintenance, the actions required by the expert to provide instructions in the Augmented Reality application for maintenance, the platform to allow information exchange and communication thereof.

### **Development of VR (Virtual Reality) Based Training System for Safe On-the-job Training Processes**

Virtual reality occupational safety training will make factories and construction sites safer by minimizing occupational accidents and deaths from occupational accidents. Virtual reality and Industrial Job Training applications will be implemented. Virtual reality job training will also enable interactive job training with gamification on new equipment for operators and maintenance personnel.

This process will also be very useful in detecting useless or damaged parts and possible malfunctions they cause. Thanks to virtual reality job training, employees who walk around in the equipment will be able to make detailed maintenance plans with virtual reality job trainings by gamification and work efficiency will increase.

Virtual reality will also allow the simulation of dangerous situations such as equipment deterioration, chemical spread, dangerous machines, noise that may be encountered in factories or production facilities with occupational safety training and will ensure that what needs to be done is determined without putting the operators at risk. Employees who have gained virtual training experience in unexpected situations with virtual reality occupational safety training will implement actions faster by remembering what they should do in the face of situations they experience during training in real life.

### **Traffic Control System Project 2**

An innovative traffic control system will be developed within the scope of the project. The system content shall include vehicle counting, license plate recognition, instantaneous speed control, red light violation detection, average speed control, safety lane violation, smart intersection system and parking system. Instantaneous speed control and smart intersection systems, which have just started to be used in our country, are completely of foreign origin. Within the scope of the project, systems that will create import substitution in our country will be developed in this direction.

The developed system will process the data obtained from the camera, radar and infrared sensors and produce reports depending on the decision support. The reports produced shall be able to be shared in a desired center or in more than one location.

### **Indoor Mapping Mobile Application Software**

The project will minimize the mistakes and effort to be made by assisting people to direct to various positions by allocating manpower, and enable people to reach the positions they want to reach with a more accurate result. The project, which is intended to be developed, will be actively used in many sectors such as hospitals and hotels with high number of rooms and floors.

### **Depth Analysis for Aircrafts-2:**

In the project, unmanned aircrafts will be provided with obstacle detection feature based on automation and learning and a decision support mechanism will be provided. In addition, it will be used in applications such as urban planning, transportation and traffic control with its object recognition and object tracking feature.

### **e-Sports Reaction and Accuracy Rate Measurement Software**

The AIM-TEST project, which is aimed at testing and developing the skills of the players, will be able to easily monitor the development, deficiencies and performances of the players within the teams from a single platform and present this data to the teams in a reportable way. With the artificial intelligence module to be added to our AIM-TEST application, players who test their engagement skills will be offered training programs to follow and subcategories to develop. In this way, players will be able to overcome their deficiencies in an optimal way.

### **Metaverse Based Virtual Event Platform**

In the avatar-based virtual activity, the participant will have an avatar representing him/herself, that is, a designed digital visual virtual character, while participating and interacting with the activity. In this way, there will be no need to travel to another country to participate in the event and no significant amount of time and money will be required. In the platform we will develop, the participant will be able to move an avatar in a wide range of digital activities, follow the activity and communicate with other avatars (verbally and by movement). The 3D digital event space will include open and closed spaces for participants and a variety of private spaces. In addition to ordinary participants, speakers, businesses, service and product providers, and organizers have avatars. Live and recorded video broadcasts are used with avatars or real

persons that appear on the screen. It has digitized features of regular events such as virtual rooms, information desks, PowerPoint presentations on walls, etc.

### **Software for Passenger and Driver in Public Transportation Vehicles**

Public transportation has two components related to the negative experience during the trip: the driver and the passenger. In the proposed solution, we aim to integrate the 'Artificial Intelligence Based Safe Public Transportation Management System' into public transport vehicles in order to increase the safety and security of passengers. Our aim is to analyze the driver's attitude and driving behavior and the attitude of the passengers in the vehicle, detecting anomalies with deep learning and image processing technologies and sending alarms to the headquarters. Thus, headquarters officials will provide intervention in line with the incoming alarms.

### **Development of VR (Virtual Reality) Based Training System for Safe On-the-job Training Processes**

Virtual reality occupational safety training will make factories and construction sites safer by minimizing occupational accidents and deaths from occupational accidents. Virtual reality and Industrial Job Training applications will be implemented. Virtual reality job training will also enable interactive job training with gamification on new equipment for operators and maintenance personnel.

This process will also be very useful in detecting useless or damaged parts and possible malfunctions they cause. Thanks to virtual reality job training, employees who walk around in the equipment will be able to make detailed maintenance plans with virtual reality job trainings by gamification and work efficiency will increase.

Virtual reality will also allow the simulation of dangerous situations such as equipment deterioration, chemical spread, dangerous machines, noise that may be encountered in factories or production facilities with occupational safety training and will ensure that what needs to be done is determined without putting the operators at risk. Employees who have gained virtual training experience in unexpected situations with virtual reality occupational safety training will implement actions faster by remembering what they should do in the face of situations they experience during training in real life. In this context, the product developed will provide labor, cost and time advantage for companies that provide on-site technical support services to their products at many different points and will offer an innovative solution.

### **Development of Secure Payment System with Mobile and Card Payment Solution**

Unlike traditional payment methods, electronic payment systems have become widespread today. Digital commerce, which has become widespread today, has been a method that every user demands for a fast and safe payment experience. Mobile and card payment solutions aim to provide a safe environment for users regarding security verification, privacy risk and violation of personal data, which are inadequate in payment transactions.

Counterfeit identity and unauthorized transactions for payments continue to create problems for banks and their users. As a biometric and mobile method, solutions are offered with different authentication technologies.

The developed Mobile and Card Payment Solution will provide the multiplicity of different cards and methods used in areas such as transportation and shopping in daily life through a single platform.

### **Disease Detection and Treatment Optimization from Biomedical Images with Image Processing Techniques**

Today, medical imaging has been a fundamental component of all medical processes such as health screening, early diagnosis, treatment selection and follow-up. Patient triage, imaging-guided interventions, and optimization of treatment planning in both acute care and chronic disease are now integrated into routine clinical practice in all sub-specialties.

In modern medicine, the detection of bleeding in the body generally depends on the use of techniques such as Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). Automatic detection of cranial injuries from images is a complex and challenging task for radiologists. Detection difficulties are usually caused by the excessive proximity and intertwining of the structures in the brain. The diversity of structures in the brain increases the complexity of detection and decomposition algorithms. Traffic accidents and falls are the two most common causes of traumatic brain injuries (TBI), and falls are slightly more common. According to the data of the American Speech-Language-Hearing Association, at least 1.7 million TBH cases are seen every year in the United States, and more than 45% of these cases constitute Epidural Hematoma (EH) cases. In our project, we aim to detect the EH regions from the CT images of the brain by finding the limits of bleeding and measuring its size. In our project, artificial intelligence will be used with image processing techniques during the border detection process. Professional assistance will be obtained from the specialist radiologist to determine the actual limits of bleeding. Then, the proposed algorithms will be tested on the images, the results obtained will be compared with the actual limits, and the error rates will be calculated at the end. At the other stage of our project, the treatment process determined by the doctor will be updated instantly and dynamically based on patient data by using the Process Mining method in the follow-up of the disease. Data will be used with Synthetic Data Production technique to ensure the security of data within the scope of LPPD.

### **MetaMALL - Metaverse Based Virtual Bazaar Application**

Metaverse is a digital reality that combines features of social media, online gaming, augmented reality (AR) -, virtual reality (VR), and cryptocurrencies to enable users to interact virtually. Augmented reality places visual elements, audio, and other sensory inputs in real-world settings to enhance the user experience. In contrast, virtual reality is purely virtual and improves fictional realities. As the metadata store grows, it will create online spaces where user interactions are more multidimensional than the current technology supports. Users in the metadatabase will be able to immerse themselves in an area where digital and physical worlds converge, rather than just displaying digital content. Together with our project, it will be modeled in a meta-verse (Technopark, shopping mall, bazaar, etc.) where companies operating in various fields are together. The modeled area will be divided into specific parts and allocated to companies. Indoor modeling of the allocated areas can be done according to the demands of the companies.

### **Air Purifier Oxygen Point with Water Algae Support**

Breathing fresh air is of great importance for all living things. Diatoms and other microscopic algae in the oceans produced two-thirds of the world's photosynthetic carbon demand. Trees play a big role in our daily lives to ensure that we breathe healthy. Algae have many different uses in the sector, and one of them is to clean the air we breathe. The replacement of green areas by reinforced concrete areas in the modernizing world negatively affects the availability of sustainable content to all living things. Although there are many contents related to air cleaning, it is important to create a sustainable model by benefiting from the opportunities offered by nature and to contribute to nature in terms of the understanding of creating a renewable environment. Since the main working principle of our project includes a systematic use based on algae, it will not only benefit from nature; it will also have the feature of mixing with nature again as it can be used as fertilizer after the algae are exhausted. Thus, it will be able to offer what it receives from nature as a contribution to nature in return. This system covers a green sustainability project to be developed for various environments by converting carbon monoxide, nitrous oxide and various particulate contaminated gases into oxygen and biomass through photosynthesis as a result of processing.

### **Blockchain Based Video Conferencing Application**

Video conferencing systems are the communication center of the business world of the 21st century. In particular, video conferencing applications developed to reduce the travel expenses of the business world, to make time management efficient, etc. have become an integral part of social and professional life with the Covid-19 pandemic. However, it has been observed that video conference systems, which are the effective communication source of the business world that has evolved into a digital environment, are sometimes incomplete in terms of security. Security breaches such as interruption of sessions, unauthorized access to corporate data, etc., called 'Online Video Piracy', have increased with the widespread use of these systems. Video conference applications (Zoom, WebEx and Skype), which were introduced to the first global bombing violations in 2020, have started to work with intelligence officers to ensure the data and identity security of their users. However, similar violations and unauthorized data sharing events continue today and efforts to strengthen the security dimension of conference systems are gaining momentum. Although end-to-end encryption and code generation are primary security measures in conference systems, third-party violations still exist.

The areas where our Video Conference Application will take place with the features of security, cost-effective and ease of use provided by our product are as follows;

- Remote education
- Remote diagnosis
- Online exam
- Inter-agency and internal meetings
- Human resources interviews
- E-Justice systems (witness hearing, remote interrogation)
- With the application to be developed on issues such as e-examination (medical diagnosis), it will be possible to bring people together in a different location and to carry out video conference processes without security violations.

### **Development of Smart Public Transportation Solutions in Urban Mobility**

The management of crowded populations in public transport (PT) systems is crucial both to promote sustainable mobility by increasing user comfort and satisfaction in the normal functioning of public transport systems and to cope with emergencies such as pandemic crises



or disaster management situations as recently. Our project aims to increase the experience of both user, driver and smart transportation systems in different segments of the public transportation system (buses/trams/trains, railway/metro stations and bus stops). In order to achieve our mentioned goal and to convey our project idea in an open systematic perspective;

- A reference architecture will be created for crowd management using modern information and communication technologies (ICT),
- A crowd-sensitive approach will be developed to monitor and predict crowd incidents and to ensure real-time and adaptive operation control in transportation systems,
- Inform users about the crowded state of the public transport system in real time through electronic screens and/or mobile transportation applications placed inside the vehicles or at bus stops/stations,
- It can also be used in autonomous vehicles that will be a part of public transportation systems in the near future; The Sensing and Actuator Subsystem (SAAS) will be created for passenger density detection.

It is envisaged that the innovative crowd management functions provided by ICT/IoT detection technologies, which have been actively used and disseminated in crowded urban areas for the last few years, can be applied gradually as an add-on to the latest technology transportation system platforms. The most original aspect of our system architecture; thanks to the structure that allows passengers to book and pay for tickets through the mobile application, a structure that increases the experience for both public transportation system users and officials will be provided with additional time, data supply to create an alternative route and effective crowd management with real-time detection of the density at the stations and stops.

### **Obtaining Sectoral Productivity Estimation Using Machine Learning Techniques**

Rapid advances in artificial intelligence have the potential to directly affect the economy and society at large. These innovations have significant effects on both production and the wide range of products and services in terms of product characteristics, efficiency, employment and competition.

Today, computers that have a power over human intelligence have a very strong structure in terms of examining the data that people cannot follow and the relationships between these data, overlapping these data with incidents and presenting predictions for the future. In these days when innovation and digital transformation have increased its popularity, various sectors use this power to provide various benefits is the focus of our project.

Linear regression, Decision Tree, Random Forest SVM (support vector machine) and Neural Network technique (artificial neural networks) LSTM (repetitive neural networks) methods will be used while implementing our perspective aiming to increase productivity in different sectors during our project. Regardless of the sector, the system to be developed will be able to fulfill its efficiency-oriented function perfectly with the data presented by different sectors.

### **Deep Learning Based Boundary Detection Project**

Boundary detection is an important problem in computer vision. The edge that finds the boundaries between the light and dark pixels in an image is different from the detection. Boundary detection detects semantic boundaries between what people would consider different objects or regions of the image. For example, a zebra has many inner edges between

black and white lines, but people don't see these edges as part of the zebra's boundary. A complete solution includes high-level semantic information about the scene in the image that computers do not yet have, which focuses on learning an approximate limit detection algorithm from the training data.

The project aims to ensure that the area to be examined/analyzed is determined with high accuracy by determining the boundary over the images. The project aims to accelerate the business processes of individuals and institutions operating in the relevant sector and to minimize the time spent on the subject within the scope of the project.

Some areas of use of the project output product:

- Boundary detection of the cultivated area or land by the companies/institutions operating in the field of agriculture,
- Boundary detection of the pathology in the image by the companies/institutions operating in the field of health,
- Detection of defective region in the product in the production line by companies/institutions operating in the industry,
- Determining the rise and fall of water by image processing in dams or rivers and establishing an early warning system by detecting the possibility of flooding.

The operation of the model to be developed;

1. With the growing contour analysis based on the removal of morphological properties, the boundaries of the cultivated areas will be tried to be determined.
2. Rough limitation of the areas will be ensured by the contour analysis method.
3. The results obtained from the contour analysis with the Convolutional neural networks (CNN) that we will develop will be more precise.

### **Development of Roof Mobile Application for Shared Systems within the Scope of Mobility**

Smart city technologies and transportation systems help cities to reduce carbon emissions, cope with the growing population, overcome congestion and create sustainable futures. Mobility, an important dimension of smart cities, brings together some improvements of the public space and public, common and active travel models with a descriptive sign; parking spaces of shared bicycles, electric scooters, car sharing models as well as public transportation stations. In short, you can find a car, a bus, a scooter or bicycle or even a metro station in the mobility centers, and you can choose integrated vehicles according to the route you are going to.

Shared mobility systems, which take their place in developing technology as a sustainable, cost-effective and innovative urban transportation option that covers the first and last kilometer journeys and aims to provide short-distance travel options, cover mini vehicles such as bicycles, skateboards and electric scooters with speeds not exceeding 45 km per hour and help to alleviate urban traffic jams. According to the Electric Scooter Regulation, the speed limit is determined as 25 km/h.

The area of mobility (MaaS-Mobility as a Service), which is the creation of a single mobility service that can be reached by integrating different types of transportation services, is quite wide. It serves not only to transportation. At least four perspectives are clear. Personal use, public transportation, shared mobility services, and software for commercial uses. The MaaS system,

interacts with many fields, especially information-software technologies, including transportation, communication, public, law and finance.

As a mobile device, MaaS provides the opportunity to manage the entire system from a single source by using a smartphone. The mobile phone constitutes the initial stage of MaaS. Featuring an interface that includes location-based service-connected tools, and being able to be anywhere with multiple technologies such as wireless broadband, smartphones, smart tablets, MaaS makes it easy for people to plan, book, and pay for a trip. Project output will be an application covering all public transportation lines and mobility systems within the scope of product MaaS. With this application, when the passenger wants to go from point A to point B, he/she will be able to access information such as which elements of transportation he/she can access from where, where he/she can find each element, how long he/she will use the elements, when he/she will reach the point he/she wants to reach from a single center. The application to be developed will provide access to all transportation infrastructures such as buses, taxis, rail systems, e-scooters, e-bikes, car rental platforms.

MaaS projects are generally located in developed countries in Europe, North America and Asia. There is a high concentration of projects in Europe, especially Germany leading more than one MaaS project. With the project, we aim to prevent CO2 gas emissions by ensuring the dissemination of MaaS systems in our country in the first place and creating environmental protection awareness in people.

### **Autonomous Flight Capability Development and Management System**

Similar to self-driving vehicles, autonomous flight is characterized by aircraft equipped with technology that can travel independently in its own direction. This term covers any aircraft that does not need people in its controls, from small unmanned aerial vehicles to passenger jets. The existence of physically relevant vehicles is an undeniable fact and has a great importance and place in our lives. Modern aircraft have a variety of features to fly without a continuous pilot in the controls. In addition, many aircraft spend most of their flight time flying on their own in the air. However, there is a big difference between this and autonomous flight. Modern aircraft follow a specific flight plan placed by the pilot in the Flight Management System, thus performing a flight specific to the set configurations, adhering to the respective route. The aircraft is equipped to follow the flight plan but not to deal with problems that arise during the flight; these are events that require human reactions and are carried out by the pilot or co-pilot. The autonomous factor, in a way, includes an artificial intelligence that can react by thinking on its own when events outside the flight plan occur. Eventually, they would be able to take off and land without a runway and deal with turbulence or engine problems without a human in the cockpit.

Specific to the project, this system includes the development of autonomous flight integration to plan and regulate flight paths, as well as to enable the drone to position itself and return to the starting point when there is no GPS signal. This system, which will be developed, will make a great contribution to airway traffic; by gaining the reaction capabilities of people with the deep learning method, it will provide the quality of making the most accurate moves that will reach the most accurate results at the points where human competence will be slow or inadequate.

### **MIA-XR APP**

Due to time constraints in healthcare education processes at the global level, intensive curricula and challenging surgical techniques put pressure on educators to help students achieve the required high levels of psychomotor skills in a short period of time. Concern that reducing surgery time in the overly busy curriculum of health care professionals could limit opportunities for interns; The emergence of simulation techniques has led to the frequent preference of digitalization in our world where digitalization is increasing as a way to increase efficiency in the provision of practical training. The latest developments are taking place in this context in the field of virtual reality (VR), which is defined as a computer-generated medical simulation of a 3D (3D) image or environment with which a student interacts seemingly real or physically. Simulation in healthcare has developed since the late 1960s, when mannequins for anesthesia training were first introduced, and in the 1990s, with the growing interest in minimally invasive surgery, the first simple laparoscopic simulators were developed.

Today, the potential applications of digital technologies in the teaching-learning process have begun to be used in many areas of medicine. Virtual reality (VR) technology, one of these new technologies, is also used in medical and dental education and the process of spreading as a teaching tool has been increasing rapidly since the beginning of the 90s. VR technology represents the artificial simulation of a real-life environment using a computer, and this technology offers a virtual reality world, abstracting the user from the real world.

### MİA -VR App

The use of digital three-dimensional (3D) models to aid learning and teaching in anatomy education has become common over the past decade. There are now several commercially available computer programs and mobile applications that provide useful accolades to traditional anatomy training and allow users to interact with 3D models of human anatomy through rotation, magnification, and even virtual "dissection" (which is the process of dividing the outside into pieces to study the internal structure of any organism). In addition, several researchers and universities have created similar models for their own educational processes and tested them on various student populations with generally positive results. More recently, virtual reality (VR) has been explored by a number of institutions as a way for students to interact more with virtual models. For example, students who participated in VR simulation training, which was designed using 3D digital models to teach students heart anatomy, obtained more of the skills and knowledge they acquired in current model studies. VR simulation trainings, which are just beginning to become widespread in the medical world, are based on repeating real-life surgical situations. By providing the type of operation or limited patient visual (body only), they are taught how to use surgical operation tools, apply new techniques, and complete complex procedures. Existing applications provide a risk-free area where the virtual operating room and the patient and the user can apply the techniques and establish trust, and provide an environment that allows medical professionals to work together and work as a harmonious team.

The overall content of our project is the interaction with an artificial object or medium through computer software using an immersive hardware such as the term 'Virtual Reality' (VR), Oculus Rift and HTC Vive headsets and using a display (HMD). Bone anatomy, which is the cornerstone of medical education, was chosen as the training scenario to be created in VR environment. Bone anatomy applications developed in VR environment focus only on the anatomy of the head (temporal region). The training scenario to be developed within the scope of our project will be brought to the world of medicine and technology by approaching bone anatomy training from

a holistic perspective and creating a training scenario containing 'long, short, flat and irregularly shaped bones' consisting of four main bone anatomy collections in the human body.

### **Deep Learning Based Image Processing Platform**

Food is the most instinctive need of humankind. Ensuring food security is a strategic necessity for more than 7 billion people today. According to the estimates of the United Nations, in 2050 the world population will exceed 9 billion, and therefore it is a necessity to manage the variability in the land and obtain high yields from the unit area using many analytical tools to improve the efficiency of agricultural operations. Using digital and innovative technologies, we will achieve success and prestige in international and local market areas, bring a competitive infrastructure to our country's agricultural production and contribute significantly to GDP 'Real-Time Detection of Weeds: Implementing our 'UAV Platform Powered by Deep Learning Based Image Processing' project has become the focus of our project. Currently, agricultural monitoring is typically carried out with a variety of different approaches. Traditionally, fields and crops are manually inspected and tracked by producers who use them with various agricultural tools. With the use of agricultural machinery such as tractors, field release, planting and pre-harvest controls are carried out.

From a technological point of view; farmers use nitrogen sensors to calculate nutritional demands for fertilization while driving in the field. Although these approaches are still widely used for farmers operating in the field of agriculture, there is a need for technologies that can perform early detections with a high accuracy rate guided by autonomous systems, and the demand for technological approaches that use different and innovative technological steps together is increasing. Among these needs, satellites, Unmanned Ground Vehicles (UGVs) and Unmanned Aerial Vehicles (UAVs) that can perform early pest/weed detection with image processing skills stand out.

### **Development of Metaverse-Based Education Application**

Rapidly developing game culture, virtual world literature, rapidly increasing personal computer ownership rates, developing computer graphics tools, then developing games, the internet reaching all over the world, developing virtual reality and augmented reality technologies, blockchain and cryptocurrencies, developing server technologies, cloud computing and edge computing technologies have now introduced the concept of metaverse into our lives. The parts of the metaverse and the technologies with which it is associated are developing rapidly, and it is thought that these technologies will enter our lives even more in the future. The positive impact and contribution of Metaverse technology on educational processes is an indisputable fact. Due to the rapidly increasing human population and the need to educate this human population and to train professional professionals in different fields, it is a necessity. This situation further reinforces the importance of virtual and augmented reality training in training processes in order to train professional professionals from many different occupational groups from the medical field to the field of education, from the production sector to mining and emergency situations. For example, it challenges nurse educators to find innovative methods to help nursing students develop and remember key skills while ensuring patient safety. Thanks to the metaverse, where we can create a digital twin of the real world, we can bring higher education institutions, a nursery or high school education to the virtual world and create its digital twin. It is stated that thanks to the VictoryXR (2021) metaverse, the door to a more robust campus can be opened for universities through virtual campuses. It is also noted that virtual

world interaction was viewed positively by parents, noting that while parents don't like to pay for two-dimensional computer screen training for their students, they care about interacting on the digital twin campus with live lectures and real-time chats with professors, and they pay more motivated. In addition, thanks to the digital twin, the company can actually assign an instructor (such as mathematics, physics, chemistry teacher or professors) for each student in the virtual world, and the student activity and learning process can be improved thanks to artificial intelligence technology that records the user interaction of augmented reality according to the characteristics and characteristics of the student and applies behavior and scenarios accordingly.

### **MİA-ViewAR**

Outdoor direction tools were not very popular in their early stages. But today this scenario has changed and many people cannot find their way without the help of these tools. Outdoor direction tools are among the applications that save time to users and are used frequently. The same applies to indoor direction tools. The answer to the question of whether indoor direction tools are important is positive. A few points are listed in the following sections that support this answer. The indoor direction that forms the basis of our project idea is a completely innovative idea and is quite suitable for the use of today's architecture, where most facilities such as offices, hospitals, campuses and shops are built in large areas. Once inside these facilities, it is a good idea not to rely on traditional paper maps, as these maps are difficult to use, there are time losses when dealing with maps, and this damages users' time management. For example, in a medium-sized facility visited for the first time, it takes 13 minutes for users to find directions from an optimistic point of view. Innovative technology that supports indoor direction provides endless possibilities.

Organizations exploring indoor direction tools envision a wide range of uses that include asset tracking in warehouses and hospitals, analytics for retail, and proximity or local marketing for retail/e-commerce. The use of these options will assist enterprises in increasing the investment incomes and being more effective. In addition, Indoor Direction tools also have useful features for disadvantaged groups. For example, it can help the visually impaired find their way in large indoor facilities. In short, almost anyone can adapt indoor direction tools to their needs.

### **Smart Waste Management System**

Smart cities are a concept that we have frequently encountered in recent years. While transportation and energy consumption are of great importance in this regard, the steps of transformation into a smart city are accelerating with the addition of innovative infrastructures and equipment to cities with sufficient infrastructure. Especially in our metropolitan cities, making the systems smart is important in terms of both ensuring an accessible and healthy life for the residents of the city and increasing the investments with high environmental awareness. There are many examples of smart cities in our country. It is known that smart city concepts have advantages such as both raising the social level of the people and providing great savings in the costs of municipalities, etc. One of these advantages is the integration of efficient waste collection systems into the infrastructures of cities. For example, in the current situation, all of the information such as where the waste management route passes, where the containers are, how many vehicles collect the garbage is based on the experiences of the people. In addition, many municipalities do not even know how many containers they have on the site and where

they are. However, as a result of the smartization of waste management systems created with experience with IoT devices, it is possible to save distance and time as well as vehicle, fuel, vehicle maintenance cost, personnel cost and depreciation by obtaining efficient route optimizations. In addition, with optimized smart waste management systems, personnel control and management mechanism can be processed more proactively and responses to public complaints can be produced more effectively.

### **Implementation of Smart Transportation Systems**

The concept of smart city, which envisages the effective use of Information and Communication Technologies (ICT) in order for cities to have a more effective and sustainable management approach, started to spread in the early 2000s. Especially in infrastructure renewal and development processes, which are an important part of the concept of smart transportation systems, 'smart intersection management' increases its increasing importance with its intersection density and vehicle counting, monitoring and management of the entire intersection from the central system, remote detection of fault situations and taking precautions, reducing traffic density and accidents, providing an effective traffic flow and control system, optimizing traffic waiting time and reducing carbon emissions. In today's transportation system, intersection management is one of the most difficult problems to solve. Current traffic light systems cannot cope with increasing urban mobility due to the increase in traffic volume, and depending on this situation, economic and environmental disadvantages, especially security, emerge. Smart intersection management is the new intersection management that emerged with the development of technology and communication environments. In these systems, all elements such as road users, infrastructure and traffic signal controllers have the ability to efficiently transmit and coordinate traffic flow in cooperative intersection management.

### **Management and End-User Software for Shared Electric Vehicles**

The use of electric vehicles as a form of urban transportation has been growing in popularity around the world over the past few years. Many cities are focusing more on shared electric vehicle infrastructure to encourage increased use of mobility vehicles (electric bikes, scooters, etc.). While infrastructures for electric vehicles (charging stations, separate lanes, parking areas, etc.) continue to be established in cities, the development of sharing-based station location detection methods also adds significant advantages to users' mobility experiences. Services called shared mobility systems, which cover end mileage journeys, offer short-distance travel options, and take place in developing technology as a sustainable, cost-effective and innovative urban transportation option, cover mini vehicles such as bicycles, electric bicycles, skateboards, scooters, electric scooters whose speed does not exceed 25 km per hour and help to alleviate urban traffic congestion.

Our project proposal includes user software and administrator software for electric micromobility vehicles. The project content consists of Station Determination Model, Geo-fencing, Balancing, Virtual Station, Payment Systems and IoT technologies. In the Station Determination Model stage; depending on the configuration and size of the city and including the trends of the user audience in the process, the locations of the stations to be established with a strategic and optimal planning will be determined by route optimization. In the geo-fencing phase, it is a virtual environment for the real-world geographic region. In the Station Determination Model stage, users will not be able to go beyond the specified diameter with

Geo-fencing, and they will be responsible for leaving the vehicles to the nearest station when they come out. In the balancing phase, micromobility tools will be collected from the designated areas (areas with less use) and brought to the intensive use areas and the usage rate of the tools will be increased. In addition, if the current number of bicycles of the Station is less than the optimal condition, the system will encourage the customer to another station according to the condition of the nearby stations and the walking distance. At the virtual station stage, users will be able to leave their vehicles within the specified diameter. In this way, a regular and systematic parking spaces will be obtained and image pollution will also be prevented. At the payment system stage: Mobile Application will allow online subscription, payment by credit card, the use of public transport cards used within the city. In addition, there will be a Wallet feature in the mobile Application. In the IoT phase, information such as driving routes, duration, parking places, charging status of the vehicles will be analyzed with the IoT sensors in the vehicles and this information will be transferred to the end user and management software.

### **Development of Care Follow-up and Analysis Application System with Radio Frequency**

Quality measurement and follow-up of the work carried out in the processes for patient care services carried out in hospitals, nursing homes and individuals' homes are carried out through the forms filled out by the currently responsible personnel. The system we want to develop will be able to measure whether the patient is visited by the caregiver at the relevant time within the scope of date and time information in order to provide an objective quality measurement and business process follow-up mechanism to the current procedure. The information obtained by the measurement to be carried out over different regions will be transmitted to a single center and/or to a large number of related centers. In the database applications in the centers, business processes and service quality of many regions can be evaluated and reported through measurement information.

The system we want to develop will be able to measure the patient's current condition. In this context, movements and status information such as falling, leaving the care area, whether there is a person other than the patient in the care area, etc. can be measured. In this context, the data obtained will be transmitted to the center and the patient control facility will be provided from a distance. The system we want to realize can be used as an objective follow-up and situation analysis mechanism with machine evaluation independent of human participation. The system will facilitate the follow-up of the works that take place in a large number and different regions. The evaluation will be carried out and reported in centers with real-time data transfer. In this context, there will be no commitment to the human factor in the evaluation and reporting processes.

There will be no use or storage of personal data in the operation of the system. The system will not need a sensor such as a camera, and personal data such as photographs and video images of the officer and the relevant patients will not be obtained and stored in any way. Our hospital information management system called "MIA-MED", which we have developed as MİA Teknoloji, is currently actively used by 11 university hospitals. We plan to integrate the system we plan to obtain within the scope of this project into our hospital management system.

### **Mia-Clinic**

The patient participation approach adopted in our project idea development steps enables the development of health services and treatment process, better health outcomes, reduction of



health service costs and determination of more effective health policies by activating the role of the individual in health services.

With the development of mobile health applications, the contribution of patient participation to health processes has also increased. Thus, users can carry out processes such as instant and fast access to health information, making an appointment, and talking to the doctor remotely through the application. Within the scope of our project, users will access the personal health tracking application with the mobile application called MIA-MED Clinic.

Our application can also act as a guiding mechanism for chronic and metabolic (diabetes, high blood pressure, cardiovascular diseases, etc.) patients, who stand out as an effective tool in preventive health services and create the highest cost burden on the health system.

### **Production Estimation Model Development with Artificial Neural Networks for Renewable Power Plants**

Wind turbines are devices that produce electrical energy by using wind energy sources. Wind turbines have different energy generation capacities depending on wind speed, turbine blade sizes and turbine height.

Wind speed is the most important factor determining the energy given to the turbine blades. Wind turbines generate less energy at low wind speeds while generating more energy at high wind speeds. However, excessively high wind speeds can lead to undesirable consequences, such as damage or stoppage of the turbines. Estimates for wind turbines are usually based on measurements of wind speed, wind direction, and other meteorological parameters. Analyses made with meteorological data are made based on the prediction of parameters such as weather forecasts, wind speed, wind direction and air temperature. These estimates are used to optimize turbine maintenance and power generation planning. They can also be used by automated control systems, which are used to improve the efficiency of wind turbines and prevent them from being damaged.

The project output product will be a platform that will create a feasibility report for the user by performing meteorological and geophysical analysis of the region in order to model the 15-day production forecast in renewable power plants. Storage systems, which are mandatory for renewable power plants, should be planned in the direction of meteorological data and grid stability. Since the project output has the ability to predict product production, it will determine the energy storage capacity of the power plant. Thus, the stability of the network will be optimized.

Maintenance and repair activities in renewable power plants are of great importance for energy providers in terms of cost and time. Since the project output product performs 15-day production forecast modeling, it will provide planned maintenance by informing the user when maintenance and repair activities should be carried out.

### **Development of Care Follow-up and Analysis Application System with Radio Frequency**

Quality measurement and follow-up of the work carried out in the processes for patient care services carried out in hospitals, nursing homes and individuals' homes are carried out through the forms filled out by the currently responsible personnel. The system we want to develop will be able to measure whether the patient is visited by the caregiver at the relevant time within the scope of date and time information in order to provide an objective quality measurement and business process follow-up mechanism to the current procedure. The information obtained

by the measurement to be carried out over different regions will be transmitted to a single center and/or to a large number of related centers. In the database applications in the centers, business processes and service quality of many regions can be evaluated and reported through measurement information.

The system we want to develop will be able to measure the patient's current condition. In this context, movements and status information such as falling, leaving the care area, whether there is a person other than the patient in the care area, etc. can be measured. In this context, the data obtained will be transmitted to the center and the patient control facility will be provided from a distance.

The system we want to realize can be used as an objective follow-up and situation analysis mechanism with machine evaluation independent of human participation. The system will facilitate the follow-up of the works that take place in a large number and different regions. The evaluation will be carried out and reported in centers with real-time data transfer. In this context, there will be no commitment to the human factor in the evaluation and reporting processes. There will be no use or storage of personal data in the operation of the system.

The system will not need a sensor such as a camera, and personal data such as photographs and video images of the officer and the relevant patients will not be obtained and stored in any way. Our hospital information management system called "MIA-MED", which we have developed as MİA Teknoloji, is currently actively used by 11 university hospitals. We plan to integrate the system we plan to obtain within the scope of this project into our hospital management system.

### **Cloud Based Energy Monitoring and Asset Management Application Development Project**

Energy demand is increasing day by day due to the increasing population, industrial investments and the increasing prevalence of electric vehicles. Considering climate change and the cost increases of fossil fuels, renewable power plants are the only way to meet energy demand.

Renewable energy-based electricity production varies depending on seasonal conditions and hours during the day. In order to overcome this supply variability, the number of energy storage systems that store grid electricity and can transfer it back to the grid when needed is increasing worldwide. Considering the general problems in renewable power plants, the following results were obtained:

- The focus is only on energy production,
- Inability to evaluate the system holistically due to insufficient analysis tools,
- Inability to monitor instantaneous energy production,
- Inadequate planning of the workforce due to the lack of advanced practices for maintenance and failures.

With the "Energy Monitoring and Asset Management of Solar Power Plants and Storage Solar Power Plants with Cloud-Based Application" project, it is aimed to develop an application that will increase the power plant efficiency that will overcome the above-mentioned problems. It will be a platform that digitizes the operation and maintenance processes in solar power plants, offering real-time monitoring and management, thus minimizing production losses. The application shall have the following features;

- Provide real-time monitoring of production plants on a single platform,
- It will offer a flexible system to the user with its structure independent of the brand and model.

- It will provide the user with the opportunity to customize the alarm and warning situations and take quick action on the events in the field,
- It will ensure that the user is kept up-to-date with periodic reports.

Following the successful development of the project, architectural and software technologies that allow the identification, integration and monitoring of Wind Power Plants (WPP), Storage WPP, Hybrid Generation Plants (WPP/spp/HPP/Storage), self-contained storage facilities and energy trade modules will also be prepared in Phase-2 phase.

### **MİA Smart Health**

Different definitions are made for hospital information management due to the way it is used and developed in countries. Until 2016, the Ministry of Health in Türkiye defined all applications required by hospitals as HIMS in the guidelines it published. Hospital Information Management Systems (HIMS) is a comprehensive software system used to manage all processes of health services, monitor patients' health records and provide the necessary data for hospital management. The main goal of our project is to improve the efficiency and quality of health services by further developing HIMS.

### **Ekomob**

The route optimization software project, developed to optimize mobility services and increase their environmental sustainability, includes main objectives such as increasing customer satisfaction, increasing operational efficiency and reducing costs. The main objective of the project is to provide a better customer experience by simplifying battery replacement and maintenance/repair operations. At the same time, it is aimed to reduce environmental impacts by increasing the energy efficiency of the company. Route optimization software streamlines data-driven operations management, improves decision-making processes, and supports long-term corporate sustainability goals. The project is seen as a comprehensive initiative that allows mobility vehicles to carry responsibility towards the environment and at the same time increase their competitiveness.

### **KarDest**

This project is planned as a decision support software where we can examine the social, economic and environmental benefits that mobility sharing systems can provide at the scale of cities and countries. This software will have features that will enable us to analyze economic, health, environmental and public benefit analyzes of bicycle sharing system applications at the city and country scale, and analyze user behavior. With the system to be developed, it is aimed to increase the use of sustainable transportation modes with the right investments. The basic framework of the project is to predict the benefit analysis of investment outputs in the integration processes of city-scale transportation systems with mobility vehicles with high accuracy rates while they are in the current and still planning stages. In this context, it is aimed to develop a big data-based decision support system with a multidimensional and holistic approach.

### **Mobitek**

In order to promote sustainable transportation in cities, a project will be developed to manage mobility systems more effectively. The project will respond to the need to efficiently use and monitor these systems at a time when vehicles are becoming more and more common as an environmentally friendly means of transport. The project will ensure that all electric vehicles are connected to each other under a central control system. This system will provide users with better management by monitoring the location of vehicles, state of charge, mileage data, lock data, sensor data, driving data, charging station data, emission data, availability, and maintenance requirements in real-time. All electric vehicles will be equipped with MobilityGPS and various sensors. These telemetry systems will monitor the current location and activity of vehicles. Users will be able to easily find and book the nearest vehicles through the app or online. Within the scope of the project, the user experience will be increased and this data will be integrated into the mobile application. Users will be able to easily rent a car, check the status of the vehicles, and plan their trips. Telemetry data collected during the project process will be analyzed, allowing for more efficient distribution of vehicles and management of maintenance needs. This will help to use resources more efficiently. The project will aim to promote sustainable transport in cities and reduce traffic congestion. It will also improve the reliability and availability of ride-sharing systems, encouraging users to use more environmentally friendly transportation options. New studies will be carried out to make mobility systems more efficient and user-friendly. It will use a central control system and telemetry systems to track the location and status of vehicles in real time. It will also develop a mobile app that will make it easier for users to find and rent vehicles. The aim of the project is to promote sustainable transport and reduce traffic congestion. This will be achieved by making vehicles more attractive as an environmentally friendly means of transport.

### **Stream Soft**

Nowadays, the rapid growth of cities and the growing popularity of online shopping have increased the importance and complexity of takeaway delivery. Therefore, our new project, which focuses on existing shared electric vehicles, aims to overcome these challenges. The project aims to create a delivery system with many two-wheeled and four-wheeled electric vehicle modes.

The main steps of the project are:

**Vehicle Modification:** Existing shared electric vehicles already have an integrated basket or trunk, but if necessary, other modifications should be made to increase carrying capacity and durability. **White Label Mobile Application Development:** Bringing users and service providers together through the mobile application, integrating the existing shared car rental platforms into the system and implementing the mobile application where all processes related to the delivery stages will be carried out.

**Distribution Monitoring and Management:** Creation of a tracking system so that takeaway distributors can track and efficiently manage the location of vehicles. Control of parcel deliveries. Follow-up of audit and monitoring processes.

**Warehouse Optimization:** Increasing the efficiency of warehouse processes by organizing package warehouses and using automation technologies.

**Collaboration Network:** Creating a network of cooperation with restaurants, markets and other businesses to make urban takeaway delivery more effective.

Sustainability and Environmental Impact: Reducing carbon footprint, reducing air pollution and contributing to cities' environmental sustainability goals through the use of electric vehicles.

The project will greatly benefit both businesses and our cities by making urban takeaway distribution more environmentally friendly and efficient. Furthermore, the success of this project could lead to the development of future delivery methods and has the potential to set a standard in this field. The project is carefully evaluated and implemented in terms of feasibility, cost-effectiveness and environmental impact.

### **Tripy Soft**

The project is a healthcare software that involves combining multiple biometric data, including facial recognition, fingerprint and finger vein scanning, to provide authentication and identification capabilities. Combining data from different biometric sources, features will take place at various levels, including scores and decision-making. These biometric transactions; With improved accuracy, reduced false acceptance rates, and lower false rejection rates, it will result in a more efficient system for many institutions, organizations, and companies. This project; will be produced to optimize safety and transitions in various environments such as fleets, production facilities, dealers, technical units. The project will also include driver identification processes for shared mobility vehicles in the future.

### **Tripy Link**

Today, rapid urban growth and population growth pose major challenges for the transportation and logistics sector, necessitating the development of sustainable and efficient transportation and storage systems. This project aims to effectively integrate electric vehicles and other electric transportation vehicles into logistics and warehousing processes. Besides this, energy storage solutions, such as lithium-ion batteries, will be used to improve energy efficiency.

### **Tripy Tech**

Innovative solutions are needed in response to evolving and changing customer needs, as well as the need for manual processes or inadequate use of technology. These solutions should be able to respond to demands, bring together all functions, offer speed, reliability and high efficiency as well as developing technology. The Tripy-tech project aims to target all tasks that cannot be effectively managed by traditional methods. It is also aimed to improve processes that are currently managed manually and involve a large number of employees or visitors. This solution will benefit many institutions from mobility operators to local governments, from public institutions to banks, from shopping malls to universities, from city hospitals to prisons, from factories to private enterprises. Apart from the main activities of the institution, our company aims to develop solutions that will increase the efficiency and profitability of organizations by combining the needs and requirements of different departments with service quality.

## 5. OPERATING MARKETS/SECTORS



### 5.1 Identification and Verification

It refers to the processes of identifying and verifying the identities of individuals. These processes are used for purposes such as providing security, authorizing, and controlling access. These technologies include biometric, card and mobile technologies. The following are the technologies that are frequently used in identity recognition and verification processes:

**Facial Recognition:** It makes identification by analyzing the facial features of the person. Facial recognition technology scans the face through cameras, determines features, and authenticates by comparison.

**Iris Recognition:** Authenticates the person using the iris pattern. The iris is a colored ring in the eye that is unique to individuals. The iris recognition system scans the iris pattern, identifies unique features, and performs the authentication.

**Fingerprint Recognition:** It authenticates using the person's fingerprint. Fingerprints are unique patterns found on the skin surface of the fingers. Fingerprint scanners provide authentication by reading these patterns.

**Finger Vein Recognition:**It authenticates using the person's finger veins. Finger vein prints are vein patterns found inside the fingers. This technology scans the finger veins, identifies unique patterns, and performs authentication.

**Mobile Identification:**It is the process of authentication carried out through the use of mobile devices. This method is often integrated with biometric technologies and allows users to use their smartphones or other

mobile devices for authentication.

**Smart Card:** It is a card-based technology used for authentication. These cards contain personal information and information required for identity verification. It reads and authenticates information through smart cards, magnetic tapes, chips, and other technologies.

Identity recognition and verification technologies provide secure and fast authorization in various areas, from access control systems to payment systems. These technologies have an important role in the protection and security of personal data.



## 5.2 Integrated Facility Security and Management

Integrated facility security and management is a collection of systems that allow the security and management of one or more facilities to be monitored and controlled through a single structure. These systems involve the integration of various technologies and subsystems and aim to increase the operational efficiency of the plant, ensure safety and use resources more efficiently. Below are the systems that are frequently used in integrated facility security and management, detailed:

**Access Control Systems:** These are systems used to control access to certain areas within the facility. These systems often control the passage of staff or visitors using technologies such as card access or biometric authentication.

**Surveillance and Area Management with Camera and Sensor:** These are systems that enable surveillance and monitoring of various areas of the facility using cameras and sensors. These systems can also help with space management by monitoring various parameters.

**Personnel Attendance Control System:** These are the systems used to monitor the working hours and attendance of the personnel. These systems usually record the entries and exits of personnel using card or biometric authentication methods.

**Vehicle identification, passage and parking lot management system** These are the systems that enable the recognition of the vehicles within the facility, the control of their passage and the management of the parking lot. These systems often enable the recognition of vehicles using license plate recognition technology.

**Cafeteria and Payment Management:** They are systems that facilitate the management and payment processes of cafeterias or cafeterias within the facility. These systems usually allow payment via card or mobile devices.

**Lighting, air conditioning, and fire-fighting systems:** They are the systems that monitor and control the lighting, air conditioning and fire detection/extinguishing systems within the facility. These systems often work in conjunction with automated controls and aim to improve energy efficiency.

**Kiosk, Printer and Elevator Management:** They are systems that enable monitoring and management of kiosk machines, printers and elevators in the facility. The purpose of these systems is to make it easier for users to use and maintain these devices effectively.

Integrated facility security and management systems are important tools used to optimize and coordinate security and operational processes in facilities. These systems play a critical role in ensuring personnel safety, using resources effectively, and improving the overall efficiency of the facility.



## 5.2 Integrated Facility Security and Management

Critical facility security and management includes a variety of technologies aimed at keeping a specific area, facility, or building under control and ensuring its security. These systems are used to protect against various security threats and to minimize potential risks. In addition, they enable different security technologies to be integrated and managed on a single platform. Here are the details of technologies frequently used in critical facility safety and management:

**Access Control Systems:** These are systems used to control access to certain areas within the facility. These systems are used to prevent unauthorized access and to allow only designated personnel or visitors to enter certain areas.

**Surveillance and Area Management with Camera and Sensor:** It provides continuous surveillance and monitoring of various areas of the facility using cameras and sensors. These systems also support space management with features such as motion detection.

**Drone and Anti-Drone Systems:** Drone technologies are used to monitor critical areas from the air and ensure their safety. At the same time, anti-drone systems can also be integrated to prevent unwanted drone entries.

**Perimeter Security Radar System:** Radar-based systems are used to detect and monitor movements around the facility. These systems are used to identify possible threats outside the boundaries of the facility and to provide early warning.

**Restricted and Special Authorized Zone System:** They are systems used to control the entry of persons with limited or special powers into certain regions. These systems are used to limit access to sensitive data or critical infrastructure and ensure strict security protocols are implemented.

Critical facility security and management systems are vital for the protection and security of critical infrastructures. These systems are equipped with features such as rapid response, risk management and continuous monitoring, providing an effective defense against possible threats.



## 5.4 Integrated Environmental Monitoring, City Monitoring and Intelligent Traffic Control Solution

This solution provides a platform that can be used for environmental monitoring, city monitoring and smart traffic monitoring inside and outside the facilities. Features of the solution:

**Site and Regional Management:**It provides monitoring and management of various areas inside and outside the facilities. Thanks to this feature, the security situation in different areas can be monitored and intervened when necessary.

**Camera and Sensor Management:**It allows the cameras and sensors in the facilities and in the city to be managed from a single center. In this way, the perimeter of the facilities and the general security status of the city can be continuously monitored.

**Person Face Recognition and Tracking:**Provides early detection of security threats with face recognition and tracking feature in crowded areas. It is especially used for monitoring and tracking suspicious persons.

**Monitoring, Early Warning and Information:**If abnormalities are detected, warnings are given quickly and the relevant persons are informed. Thanks to this feature, potential security breaches are identified in advance and measures can be taken.

**Person Motion Analysis with Geographic Information System Integration:**Person movements are analyzed in integration with the geographic information system. In this way, person movements in a certain area can be tracked and abnormalities can be detected.

**Electronic Monitoring System:**Traffic is monitored in city centers and highways and vehicles are recognized. This feature increases safety in traffic and allows traffic to be managed more efficiently.

**Smart Intersection and Signaling:**It enables intelligent management of traffic signals. In this way, traffic flow is optimized and traffic accidents are prevented.

**Vehicle License Plate, Brand and Color Recognition:**The license plates, brands and colors of the passing vehicles are recognized and monitored. This feature helps to identify searched vehicles and potentially dangerous vehicles.

**Command Control and Data Center Setup:**It allows all systems to be managed from a central control point. In this way, it is possible to collect, analyze and respond quickly to all data.

This integrated solution can be used to ensure the safety of facilities, make cities safer and optimize traffic management. In addition, the data center and command and control center required for the installation and management of the solution are also provided.





## 5.5 Integrated Electronic Toll Collection Solution

The integrated electronic fare collection solution offers traceable payment methods to solve time and cash problems in transportation. This solution can be used in different use cases such as public transportation, shareable car rental and highway toll booths. Here's the content of the solution:

### Payment Methods for Public Transport:

- **QR Code:** Passengers can pay by scanning their QR code when boarding public transport or purchasing tickets.
- **NFC (Near Field Communication):** Payment systems integrated with NFC-enabled devices allow passengers to pay without contact using their cards or smartphones.
- **Code Methods:** Passengers can take advantage of public transportation services using the special codes they receive.

**Shared Car Rental and Service Payments:** Passengers can use electronic payment methods when using or paying for shared car rental services. This ensures that car rental and service payments are carried out easily and quickly.

**Payment at Contracted Points of Sale:** Through agreements with specific stores or outlets, riders can also make payments at these points. This can be used in a wide range of ways, from daily shopping to food and beverage spending.

**Mobile Wallet and Inter-User Money Transfer:** Passengers can make payments using mobile wallet applications on their smartphones. They can also pay other users by transferring funds between users.

**Integration and Management:** This solution integrates all payment methods on a single platform and makes them traceable under a centralized management. In this way, usage data can be monitored, reports can be received and payment systems can be managed when necessary.

The integrated electronic toll collection solution streamlines payment processing in the transportation industry, improving the user experience and allowing transportation to become more efficient. This solution also improves security and optimizes transaction processes by reducing the use of cash.

## 5.6 Safe Public Transportation Solution

The safe public transport solution is a system developed to detect abnormal conditions that may occur in the driver's cabin and passenger area in public transport vehicles and to forward them to the control center. This solution is used to increase the safety of passengers and to respond quickly to unusual situations. Here's the content of the solution:

### Driver's Cab Monitoring:

- **Eye Monitoring:** Through the cameras, the driver's eye movements are monitored and abnormal conditions such as prolonged glances or lack of blinking are detected.
- **Fatigue and Sleep Detection:** If the driver shows signs of fatigue or sleep, the system warns and informs the control center.
- **Smoking and Telephone Use:** Distracting behaviors of the driver, such as smoking or using a mobile phone, are detected.
- **Detection of Direction-Facing other than Driving:** Situations where the driver's attention shifts away from the driving are detected and a warning is given.

### Passenger Zone Monitoring:

- **Fight and Discussion Detection:** Signs of a fight or argument are detected through the cameras in the passenger area and transmitted to the control center.
- **Passenger Counting and Occupancy Detection:** With advanced image analysis technology, passenger count and vehicle occupancy rate are determined.
- **Age and Gender Analysis:** Demographic data is obtained by determining the age and gender of the passengers.
- **Door Collision and Accident Detection:** Events such as hitting the door or accidents occurring in the passenger area are detected and information is transmitted to the control center immediately.

**Integration and Notifications:** This solution allows operators to quickly intervene by transmitting detected anomalies to a central control center. In addition, issues are quickly detected and resolved thanks to automated alerts and notifications.

The safe public transport solution is a comprehensive system developed to increase the safety of passengers and drivers. This solution improves the safety and efficiency of public transport services by rapidly detecting and responding to unusual situations.





## 5.7 Shared Electric Vehicle Rental Solution

The shared electric car rental solution offers electric car rental services to users in order to promote a sustainable transportation method. This solution aims to make urban transportation more sustainable by sharing environmentally friendly transportation vehicles such as electric vehicles and electric bicycles. Here's the content of the solution:

**Electric Bicycle Rental Service and Operation:** A rental service and operating infrastructure are offered so that electric bicycles can be easily rented by users. Users can rent electric bikes through the app or subscription card and drop them off when their need is over.

**End User and Management Software:** Users are offered functions such as renting a car, making payments, finding a car, and scheduling rides through mobile apps or web interfaces. In addition, management software such as field management, operation monitoring and reporting is provided for business owners and managers.

**Site and Operations Management:** Operational management is provided for the effective use and maintenance of electric vehicles in the field. Operational functions such as location monitoring of vehicles, battery condition monitoring, maintenance programs and emergency response services are included in this scope.

**Integration and Installation Services:** Integration and installation services are provided to provide customized solutions according to customers' needs. In this context, technical services such as hardware installation, software integration, data management and inter-system communication are provided.

The shared electric car rental solution contributes to making urban transportation environmentally friendly and sustainable. It provides easy access and use for users, as well as an effective tool management and revenue model for business owners. This solution is an important step to reduce traffic density in cities and minimize environmental impact.

## 5.8 Electric Vehicle Charging Solutions

Electric vehicle charging solutions provide users with charging services for electric vehicles in order to contribute to a sustainable transportation and reduce carbon emissions. This solution allows users to comfortably use their electric vehicles in their daily lives by encouraging the use of electric vehicles and creating the infrastructure. Here's the content of the solution:

**Installation of AC and DC Electric Vehicle Charging Stations:**The installation of AC and DC charging stations is carried out for different needs and use cases. AC charging stations are often used in homes and offices, while DC charging stations provide faster charging and are often located in public areas and on the side of the road.

**End User and Management Software:**Users are offered functions such as finding charging stations, starting charging, making payments via mobile applications or web interfaces. In addition, management software such as charging stations management, data analysis, reporting are provided for business owners and managers.

**Installation and Infrastructure Service:**The installation of electric vehicle charging stations and infrastructure services are carried out by professional teams. Within this scope, technical operations such as installation of stations, electrical connections, infrastructure arrangements are carried out.

**24/7 Maintenance and Repair Service:** 24/7 maintenance and repair service is provided for the continuous and reliable operation of the charging stations. Within the scope of this service, operations such as regular maintenance, fault detection and rapid response are carried out.

Electric vehicle charging solutions contribute to reducing the environmental impact by encouraging the use of electric vehicles. It provides easy access and use for users and creates an effective charging station management and revenue model for business owners. This solution makes a significant contribution to the creation of a sustainable transport infrastructure.





## 5.9 Renewable Energy Solutions

Renewable energy solutions aim to exist in all areas of developing solar and wind energy systems and to develop the solutions needed. These solutions aim to ensure environmental sustainability and meet energy needs by promoting the use of renewable energy sources. Here's the content of the solution:

**Project Development and Engineering:** The development of renewable energy projects and the management of engineering processes are carried out by expert teams. In this context, there are steps such as planning, design, analysis and implementation of the project.

**Procurement and Construction:** Procurement and construction processes of equipment used in renewable energy systems are carried out in cooperation with reliable suppliers. During the construction phase, assembly, installation and testing procedures are meticulously followed.

**Asset Management:** Asset management services are provided for the effective management and maintenance of renewable energy systems. In this context, operations such as monitoring systems, performance analysis, maintenance planning and spare parts management are carried out.

**Energy Storage System:** Energy storage systems are integrated in order to use renewable energy sources efficiently. These systems are essential for storing

excess energy and using it when needed.

**Energy Management System:** Energy management systems are used to effectively manage and optimize renewable energy systems. These systems balance energy production, storage and consumption and improve efficiency.

**Finance Solutions and Investment:** Financing and investment processes of renewable energy projects are managed by expert teams. In this context, operations such as project financing, risk management, cost analysis and return on investment calculations are carried out.

Renewable energy solutions offer a comprehensive approach to ensure environmental sustainability and meet energy needs. These solutions are an important step towards a cleaner and more reliable energy future by encouraging the use of renewable energy sources.

## 5.10 Health Informatics Solutions

While health information solutions facilitate the medical, administrative, financial and legal processes of hospitals, they also play an integrated role with the country's health system. These solutions aim to increase the operational effectiveness of healthcare professionals and ensure that patients have easy access to healthcare services. Here's the content of the solution:

**Operational Effectiveness Improvement:** Health informatics solutions aim to increase the operational effectiveness of healthcare professionals. This makes processes such as appointment scheduling, patient records management, medical imaging, laboratory results monitoring more efficient by digitizing them.

**Facilitating Patient Processes:** Solutions facilitate patients' hospital and health system processes. This increases patient satisfaction with applications such as online appointment making, tele-medicine services, digitalization of medical reports.

**Income Return and Productivity:** Health informatics solutions easily serve large numbers of beds, increasing the income return and efficiency of hospitals. This increases occupancy rates by providing faster and more effective patient care.

**Integrated Management and Software:** Solutions are integrated and managed to meet all administrative and software needs of hospitals. This combines all processes such as patient records management, medical inventory tracking, personnel management into a single platform.

**National Health System Integration:** Health informatics solutions have a scalable structure for each country by providing country health system integrations. This facilitates data sharing by different health institutions and increases the coordination of health services.

Health informatics solutions provide a better experience for both healthcare professionals and patients by ensuring that hospitals and health systems are managed more effectively and efficiently. These solutions also support public health by increasing the accessibility of health services.





## 5.11 Immersive Technologies

Metaverse technologies include advanced technologies such as virtual reality (VR), augmented reality (AR), and mixed reality (MR). These technologies provide solutions to the needs of various sectors such as education, sales and marketing. Here's the content of the solution:

**Remote Maintenance with AR and MR:**Augmented reality and mixed reality technologies facilitate remote maintenance processes. Experts can provide remote troubleshooting and guidance using AR and XR technologies.

**Maintenance and Repair with AR and XR Object Recognition:**Augmented reality and mixed reality technologies can be used for object recognition and error detection. This speeds up maintenance and repair processes and improves occupational safety.

**In-Structure Imaging with AR:**Augmented reality technology can be used for in-structure imaging. In this way, engineers and architects can examine their projects in more detail and detect design errors in advance.

**Lidar-Based Mapping with AR:**Augmented reality technology can be used for lidar-based mapping. In this way, detailed maps of complex environments can be created and navigation processes can be improved.

**Vocational Training and Occupational Safety with VR:**Virtual reality technology can be used in the field of

vocational training and occupational safety. Employees can practice simulating real-world scenarios in virtual environments and learn how to deal with risky situations.

**Training Class with VR:**Virtual reality technology can provide students with an interactive and participatory learning experience by bringing traditional education classes into the virtual environment.

**360 Degrees Tour VR:**Virtual reality technology provides users with the opportunity to tour spaces virtually by offering 360-degree tours. This is often used in the real estate industry to provide a virtual tour of properties.

Immersive technologies aim to provide services in a more effective, efficient and interactive way by transforming business processes and experiences in various sectors. These technologies could become more widespread in the future and greatly change the business world and daily life.





## 5.12 Information Technology and Security Services

We provide various services to meet the requirements of organizations for information infrastructures and to ensure information security. These services include:

**Information Security:**We provide consultancy services on identifying and implementing the necessary measures by analyzing the information security needs of organizations. In this context, services such as KVKK and GDPR consultancy, ISO 27001 ISMS consultancy, ISO 27701 KBYS consultancy and information security trainings are provided.

**Cyber Security:**We provide cyber security solutions to protect organizations against cyber attacks and analyze their vulnerabilities. In this context, services such as endpoint security, firewall services, log management and Siem, penetration testing, data loss prevention, cyber security trainings and consultancy are offered with machine learning and artificial intelligence-based systems.

**Information Technologies:**We offer a variety of information technology services to manage and improve organizations' information infrastructures. In this context, services such as IT support, cloud computing services, network configuration, system installation and configuration, data center installation are provided.

The combination of these services helps organizations securely manage their IT infrastructure and meet their

requirements.

## 5.13 Sector Forecasts for 2023

Despite challenges such as cyber threats, economic uncertainties and limitations of existing systems, the technology sector in 2023 continues to focus on the strategic adoption of new technologies such as innovation, digital transformation and 5G. Various data have been compiled from various reports. The summarized helixes of this data are as follows.



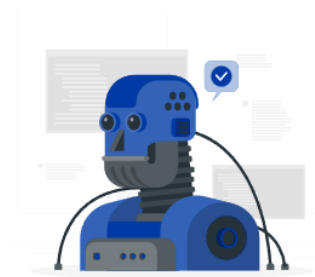
**Innovation and 5G Adoption:** KPMG's 2023 global technology report emphasizes that the technology sector's efforts to increase operational efficiency continue without compromising its goal of innovating through technology. A significant proportion of technology companies (57%) focus on using technology to launch new products or services. Specifically, 32% of tech companies see 5G as vital to their short-term goals, highlighting the role of 5G for applications that require advanced connectivity, such as autonomous vehicles and smart devices.

[KPMG global tech report 2023: Technology sector insights](#)



**Cyber Threats and Investment Security:** Cyber threats have become a major concern in the tech industry. 69% of businesses in the industry say that their confidence in investing in new technologies is undermined by these risks. Technology companies are at the forefront of the fight against fraud and cyberthreats and are feeling the potential reputational damage of a major cybersecurity failure as well as increasing regulation.

[KPMG global tech report 2023: Technology sector insights](#)



**Economic Impact of Generative AI:** The McKinsey Technology Trends Outlook 2023 report states that generative AI has very high potential and applicability in various industries. Generative AI is estimated to have the potential to add up to \$4.4 trillion in economic value to the economy by increasing productivity through more common uses, such as specific use cases and email drafts.

[McKinsey Technology Trends Outlook 2023](#)



**Economic Uncertainties and Strategic Aspects:** Deloitte's Technology Industry Outlook 2023 discusses how technology companies are coping with macroeconomic uncertainties and global challenges by optimizing operations, modernizing their infrastructure, and leveraging growth opportunities through innovation. The report highlights the importance of adapting to new regulations, transforming other industries through technology, and making strategic decisions to create a competitive future position.

[Deloitte, 2023 technology industry outlook](#)



**Global Market Growth:** According to the Information Technology Global Market Report 2023, the IT market continued to grow, supported by the adoption of IT services in various sectors and the demand for cloud computing services. In 2022, the Asia-Pacific region was identified as the largest in the IT market, followed by North America.

[Information Technology Global Market Report 2023](#)

These insights reveal a resilient and forward-looking technology sector that is continually adapting to meet current challenges and capture new growth and innovation opportunities.

## 6. DEVELOPMENT AS OF YEAR 2023

- The application for the Charging Network Operator License for the establishment and operation of charging units for electric vehicles by our subsidiary Tripy Mobility Teknoloji A.Ş. was approved by EMRA as of 05.01.2023 and entered into force until 05.01.2072 with the license number ŞH/11541-3/00080.
- Our "Radio Frequency Care Follow-Up and Analysis Application System" project developed by our company's R&D unit has been approved by Gazi University Technopark Management. The content of the project is the Radio Frequency Care Follow-Up and Analysis Application System, which allows real-time patient care follow-up and patient status analysis by measuring human movements and locations in places where sick and elderly people are located.
- Within the framework of the technology-oriented investment policy of our subsidiary TRIPY Mobility, the first investment of 138.998 Euro was made for R&D and development processes in order to serve in different regions of Türkiye within the scope of the "Charging Stations for Electric Vehicles" investment, which it plans to make to meet the charging needs of electric vehicles with high potential and increasing use today. Within the scope of Smart and Environmental City Model Systems, software is being developed within the company in order to provide transportation to electric vehicle charging stations, to make payments and reservations, to add new charging stations, and to offer the opportunity to benefit from various campaigns, and it is aimed to be a service provider in this field and to be among the companies in the role of system operator in Türkiye.
- With its decision dated 28.03.2023 and numbered 2023/12 and taking the opinion of the Audit Committee, our Board of Directors decided to select Karar Bağımsız Denetim A.Ş. to audit the financial reports of our Company in the accounting period of 01.01.2023-31.12.2023 and to carry out other activities within the scope of the relevant regulations in these laws in accordance with the principles determined in accordance with the Turkish Commercial Code No. 6102 and the Capital Markets Law No. 6362.
- A 10-year protocol has been signed between our subsidiary Tripy Mobility Teknoloji A.Ş. and Kütahya Municipality for the Establishment and Operation of the Electric Bicycle Sharing System. With our Shared Electric Vehicle Projects, it is aimed to reduce the carbon footprint and contribute to the environmentally friendly, economical, sustainable and greener world ecosystem.
- As MİA Teknoloji, a 10-year protocol was signed between our subsidiary Tripy Mobility Teknoloji A.Ş. and Bursa Nilüfer Municipality for the Establishment and Operation of the Electric Bicycle Sharing System. Bursa province ranks 4th in terms of Türkiye's population and is one of our local governments that stands out with its environmental and urban conditions suitable for the use of electric bicycles.
- Our company received an order of USD 519,556.48 to provide products and services within the scope of Security Technologies and Communication infrastructure in the ongoing TAPI-Turkmenistan Afghanistan Pakistan and India natural gas pipelines project in Turkmenistan.
- As MİA Teknoloji, a 10-year protocol was signed between our subsidiary Tripy Mobility Teknoloji A.Ş. and Sakarya Metropolitan Municipality for the Establishment and Operation of the Electric Bicycle Sharing System. Sakarya, with the approval of the International Cycling Union (UCI), was entitled to receive the title of Türkiye's first and only 'Bicycle Friendly City', the 13th in the world, in

2021, and is one of our local governments with different perspectives on the importance it attaches to cycling and the dissemination of bicycle use.

- With the decision of the Board of Directors numbered 2023/16 of our company, to carry out business development and sales activities in the developing North African market; to carry out joint studies in Morocco, Algeria, Tunisia and other African countries and to start R&D projects with local universities in the region; with the trade name "Mia TURTEK AFRİK" in the Kingdom of Morocco, a branch of MİA Teknoloji A.Ş. has been established.
- A new company has been established by our company with the title of ENERJEY ENERJİ A.Ş. in partnership with 70% MİA TEKNOLOJİ A.Ş. and 30% RENSOL ENERJİ A.Ş. in order to operate and make investments in the field of energy.
- Order approval was obtained for a private company operating in the field of health and information technology in Türkiye and one of the leading city hospitals in Türkiye with a price of 3 million USD within the scope of " Network and Computer Products Supply ".
- A maintenance and support contract has been signed between our company and TCDD Teknik Mühendislik ve Müşavirlik A.Ş. for a price of 6.360.000 TL+ VAT and for 24 months within the scope of "Eti Maden İşletmeleri Corporate Resource Management (PACS) Software Development and Maintenance Service Procurement". The referred contract price will be revised in the second 12-month period and will continue if the parties agree at the end of the 24-month period.
- Within the scope of the work of "Biometric Face Recognition System" to be used in Istanbul Financial Center and All Branch Operations Units between our company and one of Türkiye's largest financial institutions operating in Türkiye and abroad, an invitation was received to sign the first stage project order and contract with a total cost of 1.362.840 USD and 2.025.000 TRY including VAT.
- The first invoice of our product "WorkARia", which is the application of Remote Maintenance-Repair and technical support, spatial sensing and holographic live connection and communication platform with Mixed Reality, whose R&D process has been completed and developed by our company's immersive technologies and Metaverse department, has been issued. Our "WorkARia" product, which is expected to expand in the Turkish market with 183 new sales opportunities in the first quarter of 2024, is expected to open to the global market in the third quarter of 2024 and contribute positively to the company's turnover.
- A cooperation protocol has been signed between our subsidiary Tripy Mobility Teknoloji A.Ş. and PTT Bilgi Teknolojileri A.Ş., where Tripy will be integrated into the TRota application, which is a domestic and national platform, and will be a service provider. Within the scope of this cooperation, it will be possible to rent electric bicycles and vehicles within Tripy with the TRota application.
- General Maintenance and Repair Service contract has been signed between our company and HAVELSAN HAVA ELEKTRONİK SANAYİ ve TİCARET A.Ş. for the phase-1 work of the OIL and NATURAL GAS PIPELINES SAFETY (PDBHG) PROJECT within the scope of Phase-1 throughout Türkiye, which was developed and completed within the scope of Critical Facility Security Systems, with a price of 345,000 USD + VAT.
- The establishment and registration procedures of Nouzi Energie S.r.l., which our subsidiary Enerjey Enerji A.Ş. applied for as a 100% Enerjey subsidiary in Bucharest, Romania, were completed on 11.10.2023 in order to develop Photovoltaic Solar Energy and Electricity Generation Plant (spp) projects, to carry out joint venture projects with equity and/or international finance and investment institutions.

- Our "Smart Waste Management System" project, which is included in the Smart Cities Concept developed by our company's R&D team, has been completed and made its first sale. Within the scope of the pilot region, it is aimed to expand the system, which will be established in Gölbaşı Municipality for a price of 306.000 TRY including VAT, by selling it to many domestic and foreign municipalities in 2024.
- With the Smart Cities Concept, it is planned to reduce the carbon footprint and contribute to the environmentally friendly, economic, sustainable and greener world ecosystem.
- Our subsidiary Tripy Mobility Teknoloji A.Ş., "Gökova Ören Marina Turizm İnş. ve Tic. A.Ş has signed a 5-Year contract with regard to the installation and operation of Tripy Electric Charging Stations in Gökova Marina parking lot.
- Our project "Development of an Artificial Intelligence-Based Language Acquisition E-Learning Platform in the Metaverse Universe" developed by the R&D Unit of our company has been found worthy of support as a result of the evaluations made by the Scientific and Technological Research Council of Türkiye (TÜBİTAK) within the scope of the 1501 Industry R&D Projects Support Program. The relevant project decision letter was notified to us by TÜBİTAK on 10.11.2023. The minimum support amount of the project is 1.761.043,48 TRY and it is aimed to provide an innovative and interactive language learning experience to all users who want to learn a new language or improve their language skills with the Metaverse-based e-learning application to be developed within the scope of the project.
- It has been reported that the Improvement of Mobility and Warehouse Management Processes (TripyLink) project developed by the R&D Unit of Tripy Mobility Teknoloji A.Ş., one of the subsidiaries of our company, has been approved by Gazi University Technopark Management in order to reduce the challenges posed by the rapid urban growth and population growth in cities for the transportation and logistics sector. The project budget is 6,200,000 TL, and while it is aimed to integrate environmentally friendly electric transportation vehicles into logistics and storage processes with the mobility and warehouse management system to be developed, it is aimed to offer an environmentally friendly solution by reducing the carbon footprint of urban logistics and goods transportation of vehicles.
- It has been reported that the (Stream Soft) software project developed by the R&D Unit of Tripy Mobility Teknoloji A.Ş., one of the subsidiaries of our company, has been approved by Gazi University Technopark Management in order to help the use of electric vehicles as an environmentally friendly transportation tool and to integrate them into logistics and package transportation processes. The project budget is 6.660.000 TRY and it is aimed to integrate electric vehicles into urban takeaway distribution by following up with a central control system.
- In order to be used throughout Turkmenistan, especially in Arkadağ Smart City, which was introduced to the world as the first smart city of Turkmenistan in June 2023, it was found appropriate to use the electromobility solution of Tripy Mobility Teknoloji A.Ş., one of the subsidiaries of our company, after the negotiations and field tests initiated. The first stage of on-site field and usage tests has been completed and a Letter of Intent for the sale of 100 electric bicycles was signed on 13.11.2023 in the first place. After the signing of the Letter of Intent, the negotiations between the parties continue on behalf of the new projects and the developments on the subject will be shared with the public.
- It has been reported that the " Electric Bicycle Sharing Systems Control and Telemetry Systems Development (MobiTek) " project developed by the R&D Unit of Tripy Mobility Teknoloji A.Ş., one of the subsidiaries of our company, has been approved by Gazi University Technopark Management in order to connect all electric vehicles under the central control system in order to

promote sustainable transportation in cities. The project budget is 5.695.000 TRY and it is aimed to provide a better management and control system to the users by connecting all electric vehicles under the central control system and monitoring the location, charging status, mileage, lock, sensor, driving, charging station and emission data, availability and maintenance requirements of the vehicles in real time.

- The contract for the "Installation and Operation of Electric Assisted Smart Bicycle Sharing System", which is within the scope of 10 years, was signed today by Izmir Metropolitan Municipality, where Tripy Mobility Teknoloji A.Ş., our 100% subsidiary, joined on 09/11/2023. In this context, a minimum of 2,000 electric bicycles will be operated by Tripy Mobility Teknoloji A.Ş. within the boundaries of Izmir adjacent area within a year, and Tripy Mobility Teknoloji A.Ş. will be authorized to operate electric bicycles for 10 years.

## 7. INCENTIVES BENEFITED BY THE COMPANY

The company benefits from Teknokent and R&D support and other incentives of SSI. Various incentives and advantages benefited by the Company are realized within the scope of the following Laws;

**Law No. 5746 on the Support of Research, Development and Design Activities;** The purpose of this Law is to support and encourage the production of technological information, innovation in product and production processes, increase in product quality and standard, increase in efficiency, decrease in production costs, commercialization of technological information, development of pre-competitive cooperation, technology-intensive production, entrepreneurship and investments in these areas, acceleration of the entry of foreign direct investment in R&D, innovation and design, and increase in R&D and design personnel and qualified labor employment in order to make the country's economy internationally competitive through R&D, innovation and design. Within the scope of this Law, all R&D and innovation expenditures are taken into account as a discount until 31.12.2028 in determining the corporate income subject to tax. However, there is an Income Tax Withholding incentive for all R&D personnel and up to 10% of support personnel. There is also Stamp Duty Exemption and Insurance Premium support.

**Social Insurance and General Health Insurance Law No. 5510;** the purpose of this Law is to secure the persons in terms of social insurance and general health insurance; to determine the persons who will benefit from these insurances and the rights to be provided, the conditions of benefiting from these rights and the methods of financing and meeting them; to regulate the procedures and principles related to the operation of social insurance and general health insurance. The amount of 5% of the employer's share from the premiums for disability, old age and death insurances of private sector employers employing insured persons within the scope of subparagraph (a) of the first paragraph of Article 4 of this Law shall be covered by the Treasury.

### 5-POINT DISCOUNT INCENTIVE

LEGAL BASIS: Subparagraph (i) of paragraph 1 of Article 81 of Law No. 5510, Circulars No. 2008/93 – 2009/139 – 2011/45.

Document Number: 5510

The relevant Incentive was started to be implemented on 01.10.2008. It is still in force and applied in our workplace.

Employers in the private sector can receive an incentive equal to five points on the employer's share of invalidity, old-age, and survivors insurance premiums calculated over the insured's premium earnings for the insured.

- The monthly premium and service certificate / concise and premium service declaration has been submitted within the legal time limit,
- Premiums have been paid within the legal period,
- No premiums, administrative fines, and related delay increment and penalty debts, if any, have been structured in installments and are paid regularly,
- Not employing unregistered insured / not making false insured notification,
- The employer is not one of the institutions and organizations within the scope of the second paragraph of Article 30 of the Law No. 5335,
- The work done should not be one of the procurement and construction works within the scope of Laws No. 2886, 4734 and Article 3 of Law No. 4734 or pursuant to international agreements,

#### INCENTIVE FOR THE EMPLOYMENT OF DISABLED INSURED PERSONS

LEGAL BASIS Article 30 of the Labor Law No. 4857, Circular No. 2008/77.

Document Number: 14857

The relevant Incentive was started to be implemented on 01.07.2008. It is still in force and applied in our workplace.

For disabled insured workers employed in privately owned workplaces, the Ministry of Treasury and Finance has made available the option of covering the entire insurance premium employer's share calculated above the lower limit of earnings subject to premium.

#### CONDITIONS FOR BENEFITING FROM THE INCENTIVE

- Employers must employ insured persons with disabilities,
- Monthly premium and service certificate has been given to the Authority within the legal period,
- Premiums have been paid
- This incentive cannot be used due to the insured and candidate apprentices, apprentices and students who work subject to social security support premiums, who work subject to community insurance, who work abroad.
- The 5-point discount is calculated over the PEK (gross income) and the remaining 15.5% employer share is calculated over the minimum wage.

#### INCENTIVE FOR RESEARCH, DEVELOPMENT AND DESIGN ACTIVITIES

LEGAL BASIS: Article 3 of the Law No. 5746 on Supporting Research, Development and Design Activities, Circulars No. 2008/85 – 2009/21.

Document Type: 5746-15746

The relevant Incentive started to be implemented on 01.07.2008. It will end on 31.12.2028 and is implemented in our workplace.

REMARKS: Half of the insurance premium calculated over the wages of the R&D/Design and support personnel and the personnel whose wages are exempt from income tax in accordance with the provisional Article 2 of the Law No. 4691 is covered by the allowance to be put into the budget of the Ministry of Treasury and Finance until 31/12/2028.

#### CONDITIONS FOR BENEFITING FROM THE INCENTIVE

- The monthly premium and service certificate / concise and premium service declaration has been submitted within the legal time limit, premiums have been paid,
- Actual work of the insured,
- The insured is; R&D/Design personnel or support personnel provided that 10% of the number of R&D personnel is not exceeded or personnel whose wages are exempted from income tax in accordance with the Law No. 4691.
- The 5-point discount and half of the remaining 15.5% employer's share (7.75%) are calculated over PEK.

## 8. QUALIFICATION, CERTIFICATION AND REGISTRATION DOCUMENTS OF THE COMPANY

<i>S.N</i>	<i>Certificate Name</i>	<i>Issuing Corporation</i>	<i>Date of Issue</i>	<i>Date of Expiry</i>
1	9001:2015 QUALITY MANAGEMENT SYSTEM	QSI	01.04.2022	19.04.2024
2	14001:2015 ENVIRONMENTAL MANAGEMENT SYSTEM	QSI	01.04.2022	19.04.2024
3	45001:2018 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM	QSI	09.12.2022	11.01.2024
4	ISO/IEC 27001:2017 INFORMATION SECURITY MANAGEMENT SYSTEM	QSI	09.12.2022	06.12.2024
5	MILITARY FACTORIES APPROVED SUPPLIER CERTIFICATE	MSB (MINISTRY OF NATIONAL DEFENSE) / AFGM (GENERAL DIRECTORATE OF MILITARY FACTORIES)	10.09.2019 16.12.2021	16.12.2026



6	FACILITY SECURITY CERTIFICATE (NATIONAL CONFIDENTIAL)	MoD	2018	30.06.2024
7	NATO SECURITY DOCUMENT (NATO CONFIDENTIAL)	MoD / MoF	05.12.2018	30.06.2024
8	AFTER-SALES SERVICE QUALIFICATION CERTIFICATE	MINISTRY OF COMMERCE	02.08.2022	02.08.2024
9	CERTIFICATE OF SERVICE COMPETENCY	TSE (TURKISH STANDARDS INSTITUTE)	09.09.2008	10.09.2024
10	CAPACITY REPORT	ANKARA CHAMBER OF INDUSTRY / UC CET	15.03.2022	15.03.2024
11	TS ISO / IEC 15504 SPICE ORGANIZATIONAL MATURITY CERTIFICATE LEVEL 2	ICT CERTIFY	29.04.2022	29.04.2025
12	20000-1:2018 INFORMATION TECHNOLOGIES SERVICE MANAGEMENT SYSTEM	QSI	1.02.2024	1.02.2025
13	ISO 22301 BUSINESS CONTINUITY MANAGEMENT SYSTEM	QSI	01.04.2022	19.04.2024
14	ISO 10002-2018 CUSTOMER SATISFACTION MANAGEMENT SYSTEM	QSI	28.11.2022	28.11.2024
15	EYDEP	REPUBLIC OF TURKİYE PRESIDENCY OF DEFENSE INDUSTRY DIRECTORATE	01.11.2022	01.11.2025
16	PUBLIC INFORMATICS AUTHORIZATION CERTIFICATE	REPUBLIC OF TURKİYE MINISTRY OF INDUSTRY AND TECHNOLOGY	13.12.2023	06.12.2024
17	SOFTWARE AUTHORIZATION CERTIFICATE	REPUBLIC OF TURKİYE MINISTRY OF INDUSTRY AND TECHNOLOGY	13.12.2023	06.12.2024
<b><u>GENERAL DIRECTORATE OF COPYRIGHT REGISTRATION DOCUMENTS</u></b>				
18	REGISTRATION CERTIFICATE FOR COMPUTER PROGRAMS	MINISTRY OF CULTURE AND TOURISM	23.12.2019	INDEFINITE

19	Augmented Reality Based Mobile Application for Informative Product Content	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
20	Integrated Modern Health Informatics Layers	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
21	VR (Virtual Reality) Based Training System for Safe On-the-job Training Processes	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
22	Fast and Secure Biometric Authentication System	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
23	Personalized Medical Cabinet Project	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
24	Automatic Exam Evaluation System with Machine Learning and Natural Language Processing Techniques	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
25	Mask Detection and Temperature Measurement Feature Person Recognition System	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
26	MİA Vehicle Identification Solutions	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
27	MİA HealthCare	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
28	MİA HEALTH INTEGRATION SYSTEM	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
29	MİA-HYGIENE GATE	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
30	Mobile Multiple Biometric Recording Unit Development	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
31	Virtual Experience for Museums - V-Rex	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
32	Multi Biometric Person Recognition System with Remote Temperature Measurement	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE

33	AR-based Remote Maintenance System for Remote Field Support Activities	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE
34	Facial Recognition and Matching System Created with Native Image Processing and Pattern Recognition Algorithms	MINISTRY OF CULTURE AND TOURISM	20.08.2021	INDEFINITE

## 9. OTHER SIGNIFICANT INFORMATION

### 9.1 Affiliated Party Transactions

In line with the purpose of these financial statements, the shareholders, senior managers and members of the Board of Directors, their families and companies controlled by or affiliated with them, associates and partnerships are accepted and referred to as "related parties". The Group has carried out transactions with related parties during the period due to ordinary activities and details are available in the Independent Audit Report.

### 9.2 Profit Distribution Policy

Article 13 of the Articles of Association of the Company The determination and distribution of the profit is made in summary as follows;

After deducting the amounts required to be paid or reserved by the Company such as general expenses of the Company and various depreciation and the taxes required to be paid by the Company legal entity from the revenues determined at the end of the Company's operating period, the remaining net profit for the period and the net profit seen in the annual balance sheet, if any, are distributed after deducting the losses of the previous year, respectively, as shown below:

- Until reaching 20% of the capital, 5% is allocated to the legal reserve.
- The first dividend is allocated from the remaining amount to be found with the addition of the donation amount made within the year, if any, in accordance with the Turkish Commercial Code and capital market legislation within the framework of the Company's profit distribution policy.
- After the above reductions are made, the general assembly has the right to decide whether the profit share is to be distributed to the members of the board of directors, the employees of the Company, persons other than the shareholder.
- After deducting the amounts specified in paragraphs (a), (b) and (c) from the net profit for the period, the general assembly is authorized to distribute the remaining part as a second dividend in whole or in part or to allocate it as a reserve fund that it has voluntarily allocated in accordance with Article 521 of the Turkish Commercial Code.
- 10% of the amount found after deducting the dividend at the rate of 5% of the capital from the portion decided to be distributed to the shareholders and other persons participating in the profit is

added to the general legal reserve in accordance with paragraph 2 of Article 519 of the Turkish Commercial Code.

### 9.3 Information About the Financial Risk Management Policy

The Company's most important risks arising from its financial instruments are interest rate risk, liquidity risk and credit risk.

#### Capital Risk Management

In capital management, the Company strives to ensure the continuity of its operations while at the same time it aims to increase profit by using the balance of debt and shareholder's equity in the most efficient manner.

The company monitors the capital using the debt/total capital ratio. This ratio is calculated by dividing net debt by total capital. Net debt is calculated by deducting cash and carry-forward similar values from the total debt amount (including trade and other payables as shown in the balance sheet). Total capital is calculated by collecting equity and net debt as shown in the balance sheet.

#### Credit Risk

Credit risk is the risk that the other party will suffer a financial loss as a result of the failure of one of the parties in a mutual relationship to fulfill its obligations regarding a financial instrument. It tries to manage the credit risk by limiting the transactions deviated from certain parties and by continuously evaluating the reliability of the parties with whom it is related.

#### Liquidity Risk

Liquidity risk is the probability of failure to meet net funding obligations. The occurrence of incidents resulting from the decrease in fund sources such as the deterioration in markets or decreasing the credit score cause liquidity risk to occur. The Company management manages the liquidity risk by allocating funding resources and maintaining sufficient cash and cash equivalents in order to fulfil its current and probable obligations.

#### Interest Rate Risk

Interest rate risk arises from the probability that changes in interest rates affect the financial statements. The Company is exposed to interest rate risk due to the timing differences of assets and liabilities that will come to maturity in a certain period. Currently there is no company-defined risk management model or active application. In addition to not having a defined risk management model, the management of the company manages the risks through its own decisions and practices.

### 9.4 Information on Legislation Changes That Will Significantly Affect Company Activities

There are no legislative changes that will significantly affect the activities of our Company within the period of 01.01.2023-31.12.2023.

## 9.5 Significant Events that Occurred in the Reporting Period and Need to be Reported

None.

## 9.6 Events from the Reporting Period to the Publication Date

According to the decision of the Board of Directors dated 18.01.2024 and numbered 3, the resignation of Board Member Mehmet Cengiz Bağmançı from the board of directors was accepted. The current partnership structure as of 14.03.2024 is as follows;

Shareholders	Share Rate (%)
<i>Ali Gökhan BELTEKİN</i>	24,08
<i>İhsan ÜNAL</i>	24,08
<i>OTHER</i>	51,84
<i>Total</i>	100

## 9.7 Remarks Regarding the Private Audit and Public Audit Conducted During the Fiscal Period

There are no private audits and public audits carried out between 01.01.2023-31.12.2023 during the accounting period.

## 9.8 Information on Lawsuits Filed Against the Company Which May Affect the Financial Status and Activities of the Company and Their Possible Consequences

There are no lawsuits and possible results filed on behalf of our company that may affect the financial status and activities of the company.

## 9.9 Administrative or Judicial Sanctions Imposed on the Company and Members of the Managing Body Due to Practices in Violation of Legislation:

Due to practices contrary to the provisions of the legislation, there are no administrative or judicial sanctions imposed on the company and the members of the management body in the relevant accounting period.

### **9.10 If an Extraordinary General Assembly Meeting has been held within the period, Information on the Date of the Meeting, the Decisions Taken at the Meeting and the Extraordinary General Assembly to be Included in the Actions Taken**

There is no Extraordinary General Assembly Meeting held between 01.01.2023-31.12.2023.

### **9.11 Donations and Grants Made by the Company During the Period and Expenditures Made within the Framework of Social Responsibility Projects**

There is an expenditure of 2.825.485,46 TRY made by our company within the framework of donations and aids and Social Responsibility Projects within the period of 01.01.2023-31.12.2023.

### **9.12 Own Shares Acquired by the Company**

The corporation does not have any acquired shares.

### **9.13 Conflicts of Interest between the Company and the Institutions from which it Receives Service in Matters such as Investment Consultancy and Rating**

The company does not receive any services from investment consultancy and rating agencies.

## 10. CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS OF 31.12.2023

MİA TEKNOLOJİ ANONİM ŞİRKETİ consolidated financial situation as of 31.12.2023 (Amounts are expressed in Turkish Lira (TL) unless otherwise stated.)

	<i>31.12.2023</i>	<i>31.12.2022</i>
<b>ASSETS</b>		
<i>Cash and Cash Equivalents</i>	194.710.261	291.509.011
<i>Trade Accounts Receivables</i>	482.729.328	283.163.774
<i>* Trade accounts receivables due from non-affiliated parties</i>	482.729.328	283.163.774
<i>Other Receivables</i>	7.684.937	4.767.116
<i>* Other accounts receivables due from affiliated parties</i>	3.775.706	-
<i>* Other Receivables Due From Non-affiliated Parties</i>	3.909.231	4.767.116
<i>Inventories</i>	35.911.340	12.673.114
<i>Prepaid Expenses</i>	15.630.307	50.390.812
<i>* Prepaid expenses to non-affiliated parties</i>	15.630.307	50.390.812
<i>Current Period Income Tax Assets</i>	-	982.287
<i>Other Current Assets</i>	19.398.783	884.946
<i>* Other current assets from non-affiliated parties</i>	19.398.783	884.946
<b>Subtotal</b>	<b>756.064.956</b>	<b>644.371.060</b>
<b>Total Current Assets</b>	<b>756.064.956</b>	<b>644.371.060</b>
<b>Fixed Assets</b>		
<i>Investments in affiliates, joint ventures and subsidiaries</i>	12.286.984	-
<i>Real Estate For Investment Purposes</i>	31.820.000	18.454.567
<i>Tangible Fixed Assets</i>	88.953.888	8.042.678
<i>Rights of Usage</i>	4.593.333	6.331.991
<i>Intangible Fixed Assets</i>	1.212.038.372	793.135.989
<i>Prepaid Expenses</i>	14.702.970	-
<i>* Prepaid expenses to non-affiliated parties</i>	14.702.970	-
<i>Deferred Tax Asset</i>	54.473.597	-
<b>Total Fixed Assets</b>	<b>1.418.869.144</b>	<b>825.965.225</b>
<b>TOTAL ASSETS</b>	<b>2.174.934.100</b>	<b>1.470.336.285</b>

	31.12.2023	31.12.2022
<b>RESOURCES</b>		
<b>Short-Term Liabilities</b>		
Short Term Borrowings	88.954.748	95.663.459
Short Term Portions of Long Term Borrowings	110.670.415	26.423.807
Other Financial Liabilities	1.832.217	1.162.210
Trade Payables	127.518.998	136.542.884
* Trade Payables to Non-Affiliated Parties	127.518.998	136.542.884
Payables Under the Scope of Employee Benefits	5.659.561	3.846.274
Deferred Incomes	21.246.876	8.883.350
* Deferred income from related parties	21.246.876	8.883.350
Period Profit Tax Liability	973.167	1.408.153
Short-term Provisions	1.555.062	1.300.396
* Short term provisions for benefits provided to employees	999.359	888.861
* Other Short Term Provisions	555.703	411.535
Other Short Term Liabilities	1.224.106	221.035
* Other Short Term Liabilities to non-related parties	1.224.106	221.035
<b>Total Short-Term Liabilities</b>	<b>359.635.150</b>	<b>275.451.568</b>
<b>Long-Term Liabilities</b>		
Long Term Borrowings	44.104.896	2.073.683
Other Financial Liabilities	1.232.406	3.789.047
Long-term Provisions	10.046.366	8.011.745
* Long-term provisions for employee benefits	10.046.366	8.011.745
Deferred Tax Liabilities	-	44.352.969
<b>Total Long-Term Liabilities</b>	<b>55.383.668</b>	<b>58.227.444</b>
<b>TOTAL LIABILITIES</b>	<b>415.018.818</b>	<b>333.679.012</b>
<b>Equities</b>		
<b>Equity Capital of the Parent</b>	<b>1.759.439.632</b>	<b>1.136.657.273</b>
Paid-in Capital	494.000.000	38.000.000
Distinction from share capital adjustment	137.247.861	123.899.794
Capital Advance	115.181.099	-
Premiums on shares (discounts)	258.815.238	358.654.629
Other accumulated comprehensive income and (expenses) not to be reclassified in profit or loss	-457.949	-644.820
Reserves on Retained Earnings	31.787.536	9.009.986
Previous Years earnings or losses	218.877.879	183.192.035
Net Profit or Loss for the Period	503.987.968	424.545.649
<b>Non- controlling interests</b>	<b>475.650</b>	<b>-</b>
<b>TOTAL SHAREHOLDERS EQUITY</b>	<b>1.759.915.282</b>	<b>1.136.657.273</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>2.174.934.100</b>	<b>1.470.336.285</b>



## 11. CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME AS OF 31.12.2023

MİA TEKNOLOJİ ANONİM ŞİRKETİ Consolidated comprehensive income statement as of 31.12.2023 (Unless otherwise stated, the amounts are expressed in Turkish Lira (TRY).)

	<i>01.01.2023</i>	<i>01.01.2022</i>
	<b>31.12.2023</b>	<b>31.12.2022</b>
<b>PROFIT OR LOSS PART</b>		
<i>Revenue</i>		
	1.401.011.132	1.100.194.037
<i>Cost of sales</i>		
	-687.989.052	-518.464.841
<b>Gross Profit (Loss) From Commercial Activities</b>	<b>713.022.080</b>	<b>581.729.196</b>
<b>GROSS PROFIT / LOSS</b>		
	713.022.080	581.729.196
<i>General Administrative Expenses</i>		
	-107.196.699	-26.503.360
<i>Other Real Operating Income</i>		
	1.918.989	4.156.277
<i>Other Expenses from Real Operations</i>		
	-635.949	-2.190.813
<b>REAL OPERATING PROFIT/LOSS</b>	<b>607.108.421</b>	<b>557.191.300</b>
<i>Revenue From Investment Activities</i>		
	13.505.553	14.188.388
<b>OPERATING PROFIT/LOSS BEFORE FINANCING EXPENSES</b>	<b>620.613.974</b>	<b>571.379.688</b>
<i>Financing Income</i>		
	43.298.026	44.118.222
<i>Financing expenses</i>		
	-66.537.639	-44.288.896
<i>Net monetary position gains (losses)</i>		
	-191.791.666	-148.430.180
<b>PRE-TAX PROFIT/LOSS FROM CONTINUING OPERATIONS</b>	<b>405.582.695</b>	<b>422.778.834</b>
<i>Tax Expense / Income From Continuing Operations</i>		
	98.805.923	1.766.815
<i>• Tax Expense / Income of the Period</i>		
	-	-1.408.153
<i>• Deferred Tax Expense / Income</i>		
	98.805.923	3.174.968
<b>PROFIT/LOSS FOR THE PERIOD FROM CONTINUING OPERATIONS</b>	<b>504.388.618</b>	<b>424.545.649</b>
<b>PERIOD PROFIT / LOSS</b>		
	504.388.618	424.545.649
<i>Profit/Loss Distribution for the Period</i>		
	504.388.618	424.545.649
<i>Non- controlling interests</i>		
	400.650	-
<i>Parent Company Shares</i>		
	503.987.968	424.545.649
<b>Earnings Per Share</b>		
<i>Earnings per share from continuing operations</i>		
	1,0210	11.1723
<b>Not to be Reclassified to Profit or Loss</b>		
<i>Defined Benefit Plans Re-measurement Profits (Losses)</i>		
	-298.509	-644.820
<i>Defined Benefit Plans Re-measurement Profits (Losses)</i>		
	-242.690	-837.430
<i>Tax on Other Accumulated Comprehensive Income Not to Be Reclassified in Profit or Loss</i>		
	-55.819	192.610
<i>• Deferred Tax (Expense) / Revenue</i>		
	-55.819	192.610
<b>OTHER COMPREHENSIVE INCOME</b>	<b>-298.509</b>	<b>-644.820</b>
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>504.090.109</b>	<b>423.900.829</b>

This report has been prepared in accordance with the provisions of the "Regulation on the Determination of the Minimum Content of the Annual Activity Report of Companies" published by the Ministry of Trade in the Official Gazette dated 28.08.2012 and numbered 28395.

**Ali Gökhan BELTEKİN**  
Chairperson of the Board

**Özgür ÇİVİ**  
Independent Board Member

Sincerely,  
14.03.2024

**İhsan ÜNALY**  
Deputy Chairperson of the  
Board of Directors

**Ali YAZICI**  
Independent Board Member

**Mehmet Cengiz BAĞMANCI**  
Board Member