

# Discover

Discover the potential

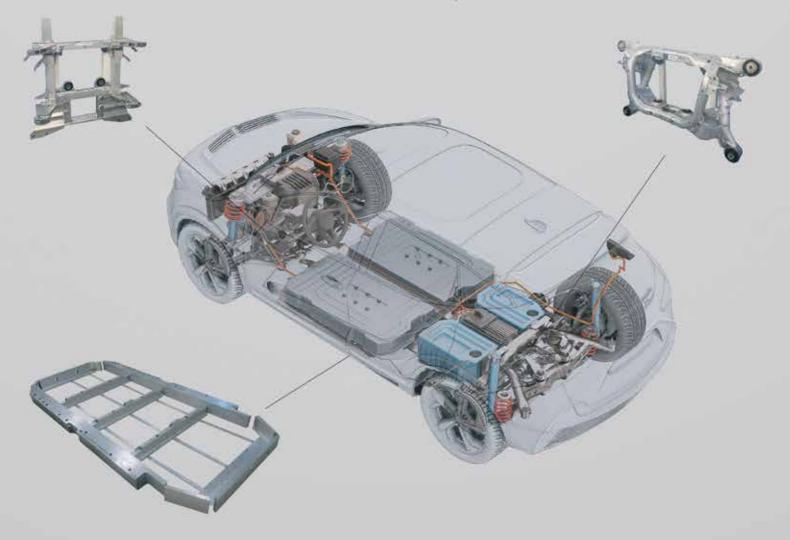
# AUTOMOTIVE INDUSTRY OF TÜRKİYE

AUTOMOTIVE SUPPLIERS ASSOCIATION OF TÜRKİYE

September-October 2024 · Issue 140 · Year: 26

## STRONGER and LIGHTER!

45 Years of 'Kalibre' experience in precision is now in aluminum extrusion, your reliable partner in e-mobility.



Precision steel tubes Steel tubular parts Aluminum extruded parts Forged aluminum parts











EDITOR 3

#### Owner:

Chairman of the Board of Directors for TAYSAD, **ALBERT SAYDAM** 

Editor in Chief **SEVGi ÖZÇELİK** 

Editorial Board
ALBERT SAYDAM
YAKUP BIRINCI

Editor

NUR GÜREL

editor@mavitanitim.com.tr

Publishing Director **SEVGi ÖZÇELIK** sevgi@taysad.org.tr

Editorial Manager **TÜLAY ŞİMŞEK** tulay@taysad.org.tr

Visual Director **iLTER ÇITAK**grafik@mavitanitim.com.tr

Ad Manager FIRTINA ARISOY firtina@mavitanitim.com.tr

Management

#### Taşıt Araçları Tedarik Sanaciyicileri Derneği

TOSB Otomotiv Tedarik Sanayi ihtisas Organize Sanayi Bölgesi 1. Cadde No: 10 41420 Şekerpınar / Çayırova Kocaeli/ TÜRKİYE Tel: + 90 262 658 98 18 Faks: + 90 262 658 98 39 www.taysad.org.tr · info@taysad.org.tr

Production

#### Mavi Tanıtım ve iletişim

Cevizli Mah. Tarçın Çıkmazı Sokak No: 3 Drama Apt. Kat: 5 Daire: 16 Maltepe-istanbul Tel: +90 216 345 99 20 www.mavitanitim.com.tr

Print

#### Kültür Sanat Basım

Litros Yolu 2. Matbaacılar Sitesi ZB7-ZB11 Topkapı/Zeytinburnu/istanbul Tel: +90.212.674.00.21 - 29 - 46

Local - Turkish - Science

#### **Published Every Two Months**

All publishing rights belong to TAYSAD and can be quoted by showing the source. The advertiser responsible for advertising all ads belongs to their authors. TAYSAD Magazine is not sold with money.

Digital Version www.taysadmag.com



TOMOTIVE INDUSTRY OF TÜRKİYE



**Sevgi Özçelik** Secretary General

anked among the world's largest automotive manufacturers, Türkiye is positioned as a production and export hub for various geographies, primarily Europe and the Middle East, by numerous international automotive brands. In Türkiye, which is one of the leading countries in vehicle exports to Europe, the automotive sector employs over 500,000 people and achieved an export value of 35 billion dollars in 2023.

Thanks to the production capabilities of the Turkish automotive industry, its strong supply industry and supplier ecosystem, growing R&D capacity, and Türkiye's central location, it continues to be competitive for international investments.

Capable of producing nearly all the parts that make up a vehicle and exporting these parts to 190 countries abroad, the automotive supply industry has reached a highly ambitious stage in product development while manufacturing the most strategic parts for the world's highest-quality brands. Founded in 1978, TAYSAD is the sole and most competent representative of the Turkish automotive supply industry, representing 85% of the supply industry production and 80% of its exports. 80% of the members operate in the Marmara region, 12% in the Aegean region, and the remaining 8% in other regions of Türkiye. 25% of its members operate with foreign capital partnerships. TAYSAD is a member of the European Association of Automotive Suppliers (CLEPA). Additionally, it serves as a reference institution for both domestic and international automotive companies.



Sevgi Özçelik

4 CONTENTS SEPTEMBER-OCTOBER 2024 - ISSUE 140



# AUTOMOTIVE INDUSTRY OF TÜRKİYE

September-October 2024 Issue: 140

#### 14

#### Türkiye is an Important Part of the Global Value Chain

#### **KAAN MASATÇI**

Presidency of the Republic of Türkiye, Investment Office Project Manager

#### 16

#### Mobility Ecosystem to Shape the Future

#### BARAN ÇELİK

Uludağ Automotive Industry Exporters' Association (OIB) President

#### 20

#### Eco-Friendly Vehicle Investments Preferring Our Country is Highly Valued

#### **ALIHAYDAR BOZKURT**

Automotive Distributors' and Mobility Association (ODMD) President

#### 24

#### Investments Prove Our Country's Potential

#### Dr. K. ALTUĞ ERCİŞ

Automotive Authorized Dealers Association (OYDER) President

#### 26

#### We Are Successful On a Global Scale

#### ALIÖZÇETE

Turkish Automotive Aftermarket Association (OSS) President

#### 30

#### The Mobility Ecosystem Rapidly Prepares for Electrification With New Products

#### KAĞAN YAŞA

Car Rental and Mobility Organizations Association (TOKKDER) President

#### 34

#### We Continue to Accelerate Our Industry Both in Türkiye and In International Markets

#### TUĞRUL ARIKAN

Anadolu Isuzu General Manager

#### 38

#### We Are Prioritizing The Widespread Adoption of Electric Vehicles in Our Country

#### **MURAT BERKEL**

Hyundai Assan General Manager

















## OUR VALUE PROPOSITION TO CUSTOMERS

77



#### Supply Chain Management

Our customers demand, we supply!



#### Project Management

We stand by our customers to grow their business!



### Problem Solving

We ensure that our customers have perfect solutions!



#### Continuous Cost Improvement

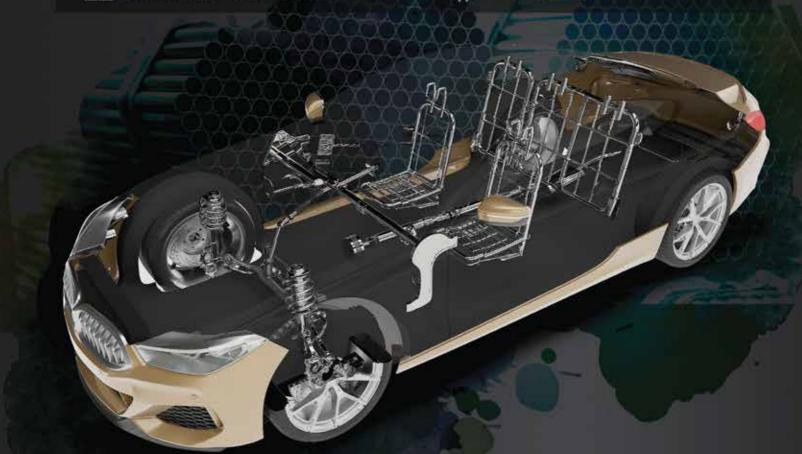
We look out for every penny of our customer!



Further processing capabilities for steel tube-made parts



High precision steel tubes manufacturing







- www.borusanpipe.com
- pipe@borusan.com
- © +90 (549) 393 58 00
- f 📵 in Borusanpipe
  - Borusanpipe
  - X Borusanpipe



## The Future We Create Together

Albert Saydam
Chair of the Board TAYSAD

As we go through innovations and transformations, preparing the intelligent and eco-friendly automotive supply industry for a sustainable future is one of TAYSAD's important duties.

hile the automotive sector continues to play a central role in the global economy, technological developments are constantly reshaping the industry. The supply industry, which powers vehicle manufacturing, is today at the crossroads of technological innovation and environmental regulations.

During this period of change, the automotive industry is evolving more broadly into the mobility sector. New generation, eco-friendly vehicles and services that enable the transportation of people and goods are merging with new business models.

As sustainability, digital transformation, and smart manufacturing reshape the automotive ecosystem, global trends in the industry present many opportunities for Turkish suppliers and our country. At this point, Turkish suppliers have the capability to produce 80% of a vehicle.

The ability to quickly adapt is a key skill for preparing the Turkish automotive and supply industry for the future. In recent years, the Turkish supply industry has positioned itself as a solution provider for its customers. As the shortening and increasing flexibility of the global supply chain become top priorities, the Turkish supply industry is becoming more preferred. Today, our supply industry exports to 190 countries, continuously increasing its share of exports. While playing a key role in the economy, it creates employment opportunities and encourages technological advancements.

#### Suppliers' Commitment to a Sustainable Future

In a time when climate crisis and consumer demands are becoming more prominent, stricter regulations targeting internal combustion vehicles are bringing about a new transformation. Suppliers are aware of their responsibility in decarbonizing transportation, vehicles, and production.

Our country's domestic electric vehicle, TOGG, and the electric eco-friendly vehicles produced by our main industries have accelerated our shift towards new technol-

ogies. As a nation, we are focusing on the production of eco-friendly vehicles and aim to make this a more permanent situation.

Recently, an exciting development occurred for our country. BYD, one of the world's leading electric vehicle manufacturers, officially announced its decision to invest in Türkiye. This investment will positively impact the production and technologies of alternative fuel vehicles in Türkiye.

#### Suppliers Have the Ability to Overcome Critical Challenges

In the transformation the sector is undergoing, Turkish suppliers, who believe in the importance of mutual cooperation, aim to create a healthy environment for the development of the automotive industry. In this era where decarbonization is becoming increasingly important and electrification is an inevitable reality, they are working to find cleaner, better, more sustainable, and more ecofriendly solutions.

As we navigate through innovations and transformations, preparing the intelligent and eco-friendly automotive supply industry for a sustainable future is one of TAYSAD's significant duties. TAYSAD is a value created by the dedicated efforts of Turkish suppliers working together. The collective effort built within TAYSAD supports us in overcoming upcoming challenges. Our working groups, conferences, training sessions, and publications are aimed at finding ways to enhance the competitiveness of our suppliers. By sharing our experiences, we grow together.

As an association, we represent our over 530 members on every platform. We strive to accelerate our members' adaptation to change and their belief in it. The precompetitive collaboration culture is at the heart of our association's success.

Our culture of solidarity provides us with hope for a sustainable future.

# **NORMFSP**

## MEETING EXPECTATIONS AT **EVERY TOUCHPOINT**

Your approved official partner for ICE, Hybrid and BEV vehicles in C-Part management.















8 SECTOR ANALYSIS SEPTEMBER-OCTOBER 2024 · ISSUE 140

# **Automotive Production in the First Six Months of the Year 707 thousand 67 units**

Automotive Industry Association (OSD) announced the data for the first 6 months of 2024.

While total production decreased by 4 percent in the January-June period of 2024

Automobile production was at a level parallel to the same period of the previous year.

During this period, total production was 707 thousand 67 units and automobile production was 460 thousand 743 units.

#### 492 THOUSAND 471 UNITS



#### TOTAL PRODUCTION

In the January-June period of 2024, total production, including tractor production, was 733 thousand 559 units.

////, www.taysadmag.com ////////

#### 300 THOUSAND 109 UNITS



#### PASS. CAR PRODUCTION

In the January-June period of 2024, automobile production was at a parallel level compared to the January-June period of 2023, reaching 460 thousand 743 units.

#### 386 THOUSAND 538 UNITS



#### **AUTOMOTIVE MARKET**

In the January-June period of 2024, the total market increased by 3 percent compared to the same period last year, reaching 600 thousand 948 units.

#### January-June 2024 %73

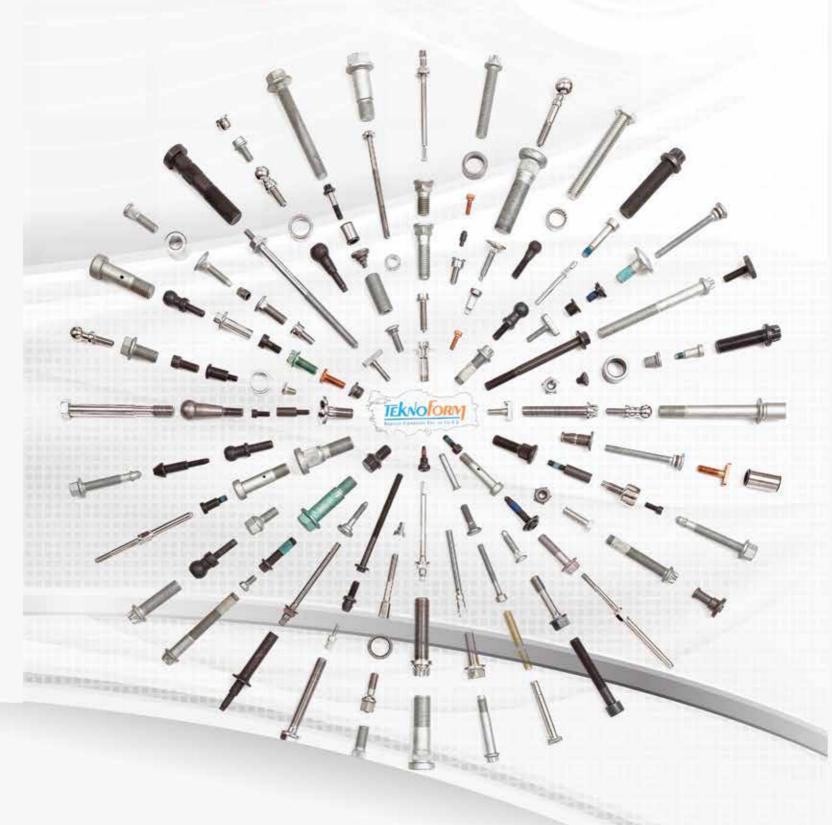


#### **CAPACITY USE**

In the January-June period of 2024, the capacity utilization rate of the automotive industry was 73 percent.

#### **Produciton of Automotive Manufacturers Januray - June / 2024** TOTAL A.I.O.S. 3.399 191.050 FORD OTOSAN 1.572 HATTAT TRAKTÖR HYUNDAI ASSAN 122 376 122,376 KARSAN 352 MERCEDES-BENZ TÜRK 12.692 1.689 MAN TÜRKİYE OTOKAR 2.650 OYAK RENAULT 168.095 168.095 36,5 TEMSA 1.968 62,399 94.653 TOFAŞ 13.5 107.873 23,4 107.873 TOYOTA 24.920 TÜRK TRAKTÖR TOTAL 733.559 100 194.185 100 5.547 100 23.920





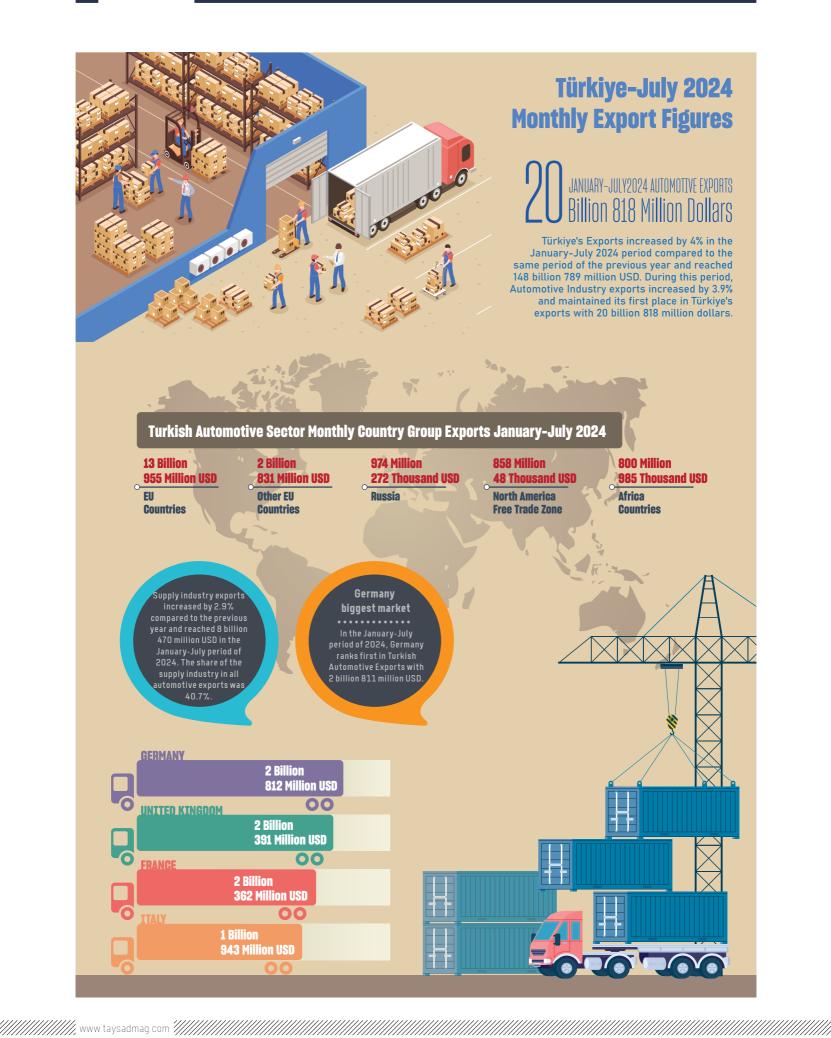
Türkgücü OSB Mahallesi Yılmaz Alpaslan Caddesi No:13/1 Posta Kodu: 59850 Çorlu - Tekirdağ - TÜRKİYE

Tel: +90 282 502 55 55 • Fax: +90 282 502 94 15 www.teknoform.com





10 SECTOR ANALYSIS SEPTEMBER-OCTOBER 2024 · ISSUE 140





# **Automotive Industry of Türkiye**

# Production, export, and engineering hub of global brands for international markets



#### **USD 18 Billion**

Total investment volume of global brands in the Turkish automotive industry since 2000.



#### 1.4 Billion

Number of vehicles produced in Türkiye in 2023.



#### 1st

Türkiye's rank in commercial vehicle production in Europe in



#### 3rd

Türkiye's rank in Europe's automotive production in 2023.



#### 12th

Türkiye's rank in global automotive production in 2023.



#### %70

Average export rate of OEMs in Türkiye for 2023.



#### %7

CAGR of the vehicle market in Türkiye for 2002-2023.



#### **Global Supplier**

More than 30 of the top 100 global suppliers have production facilities in Türkiye.

Türkiye has already become a center of excellence, particularly with respect to the production of commercial vehicles. By the end of 2023, Türkiye was the number one producer of commercial vehicles (CVs) in Europe.

Turkish automotive industry is now aiming at improving its R&D, design, and branding capabilities. As of 2023, 162 R&D and design centers belonging to automotive manufacturers and suppliers are which are operation in Türkiye.

Türkiye offers a supportive environment on the supply chain side. There are around 1,100 component suppliers supporting the production of OEMs. Türkiye is home of many global suppliers. There are more than 250 global suppliers that use Türkiye as a production base, with 30 of them ranking among the 100 largest global suppliers.



# Solution Partner For Fixing Systems























# Türkiye is an Important Part of the Global Value Chain

Since 2003, original equipment manufacturers (OEM) have invested over USD 18 billion in their operations in Türkiye. These investments significantly expanded their manufacturing capabilities, which in turn led Türkiye to become an important part of the global value chain of international OEMs.

ürkiye has proven itself as a resilient player in global value chains with multinational companies shoring up their presence in the country in line with their strategies of nearshoring, regionalization, and diversification. Given its strategic location that unites three continents, Türkiye is positioning itself as a crucial hub for companies seeking alternatives for strengthening their global production and export network.

Over the years, Türkiye has positioned itself as one of the key players in the mobility industry, and now there are 13 different OEMs operating within the country, 8 of which are global actors such as Mercedes, Toyota, Hyundai, Renault, Isuzu, Ford, MAN and Stellantis. On July 8th, 2024, one of the leaders of the global EV market, BYD, signed an agreement for their \$1 billion investment in Türkiye, further strengthening the country's global position in the industry.

In 2023, Türkiye produced over 1.4 million automotive units, ranking 3<sup>rd</sup> in Europe and 1<sup>st</sup> in Central and Eastern Europe. Automotive exports reached \$35 billion, making it the largest sector in Turkish exports. Most of these exports were to European countries, positioning Türkiye as a strategic manufacturing and export hub. Türkiye does not only offer a large domestic market of 85 million people but also serves as a gateway to the EU and 30 other countries through the EU customs union and free trade agreements, making it a competitive player in the mobility industry as well as other sectors.



KAAN MASATÇI
Presidency of the Republic of
Türkiye, Investment Office
Project Manager

Growing market size and increasing production volumes naturally formed a significant automotive supplier network within the country. Currently, there are over 500 tier-1 suppliers operating in Türkiye, and more than 30 of them are among the global top 100 automotive suppliers, which underlines the significant supply chain advantages the Turkish automotive industry offers to the OEMs.

Apart from its manufacturing capabilities, having the third-largest researcher pool in Europe, Türkiye has a strong R&D ecosystem as well. Currently, there are over 720 international companies operating R&D

offices within Türkiye. For example, today, Ford Otosan employs more than 2,000 R&D personnel across its offices in the country. Additionally, this capability of Türkiye is one of the reasons why BYD has chosen Türkiye. Opening an R&D center is a significant aspect of BYD's announced investment.

Türkiye's EV market grew nearly tenfold in 2023, with EV and hybrid vehicles making up 18% of the local passenger vehicle market. This rising trend in electrified mobility has driven the need for charging points, which increased more than fivefold last year, reaching 13,160. The number of charging points is expected to exceed 1.3 million by 2030 in the average scenario expected by the Energy Market Regulatory Authority (EMRA).

The transformation of businesses focusing on sustainability, digitalization, electrification, and decarbonization is crucial. The Turkish automotive industry is progressing through successful policies, incentive programs, and a commitment to the European Green Deal. In June 2022, the Ministry of Industry and Technology published the Mobility Vehicles and Technologies Roadmap, setting eight targets for EVs, including supporting EV production and becoming a regional battery production center. Incentives in the automotive and mobility industry can cover up to 70% or more of the total investment, especially for projects contributing to the electrification of mobility.

**Sources:** OICA, Ministry of Industry and Technology, EMRA, TAYSAD, Ford Otosan official website



里心

# 60 years, 7 continents, 100 countries. Looking forward to the next 60 years in the automotive industry.





# Mobility Ecosystem to Shape the Future

Türkiye's supply industry, which can produce almost all of the parts in a vehicle, is ahead of many countries worldwide when it comes to quality awareness. Our supply industry is in a powerful position both in investment and production. Today, the current state of the supply industry strengthens both Türkiye's automotive main industry and original equipment manufacturers.

#### **BARAN ÇELİK**

Uludağ Automotive Industry Exporters' Association (OIB) President

With over 35 billion dollars in exports, the industry alone accounts for an average of 15% of Türkiye's exports.

oday, with a production capacity of over 2 million units, the Turkish automotive industry is a global player exporting vehicles, components, and engineering to almost every country. Initially focusing on the Türkiye market, our industry has now achieved the competence to develop vehicles, engines, and transmission systems with R&D investments. Our R&D centers have transformed into engineering export hubs within their own ecosystems.

With over 35 billion dollars in exports, the industry alone accounts for an average of 15% of Türkiye's exports. We have contributed significantly to the national economy with over 550,000 employment and over 11 billion dollars in investments in the last 10 years. Especially after the Customs Union, the increased competition accelerated automotive investments in our country. Today, with both foreign partnerships and 100% domestic capital investments, we have become the 13th largest automotive producer in the world and the 4th largest among EU countries.

Today, OEMs producing in Türkiye are leading the transformation in the au-



tomotive industry. Türkiye's domestic car TOGG is a fully electric vehicle designed within the scope of the ongoing transformation in the automotive industry. The fact that Türkiye has embarked on this transformation path with TOGG and that there will be an accumulation of knowledge in this field is invaluable. Because the future will be shaped within this mobility ecosystem.

Ford Otosan transforms Türkiye into an important production center for electric commercial vehicles with a very large investment. Toyota has started producing plug-in hybrid vehicles in Türkiye for the first time. These companies also turn Türkiye into an important center in battery technology with their battery inWITH OVER 35

35

BILLION DOLLARS IN EXPORTS, THE INDUSTRY ALONE ACCOUNTS FOR AN AVERAGE OF

**%15** 

OF TÜRKİYE'S EXPORTS

JANUARY-JULY 2024 SUPPLY INDUSTRY EXPORT

**18**,5



OEMs producing in Türkiye are leading the transformation in the automotive industry. Türkiye's domestic car TOGG is a fully electric vehicle designed within the scope of the ongoing transformation in the automotive industry. The fact that Türkiye's has embarked on this transformation path with TOGG and that there will be an accumulation of knowledge in this field is invaluable. Because the future will be shaped within this mobility ecosystem.





vestments. We are among the leading countries in the production of electric buses. Finally, the recently announced BYD investment will be the first investment in our country's main industry after nearly 30 years. We believe that this investment made in such a period will pave the way for new investments in our country.

Of course, there is still much to be done in this regard. We are going through a period where access to finance is very difficult. Investments in electric vehicles by TOGG and other companies are promising for the future. Many start-up companies are working on the development and production process of the domestic car. This facilitates the emergence of new high-tech-focused actors in the industry. We can already see that the development and production process of the domestic car will create significant experience and accumulation in innovative and advanced technologies for our country.

Our supply industry is in a powerful position both in investment and production Türkiye supply industry, which can produce almost all of the parts in a vehicle, is ahead of many countries worldwide when it comes to quality awareness. Our supply industry is in a powerful position both in investment and production. Today, the current state of the supply industry strengthens both Türkiye automotive main industry and original equipment manufacturers. The automotive industry reached 35 billion dollars in exports in 2023 with a 13% increase. The supply industry's share in this is around 41%, with over 14 billion dollars in supply industry exports.

Our supply industry is at a level where it can produce almost all the parts in traditional internal combustion cars. We have a supply industry that exports these to all automotive countries worldwide, to countries that produce cars and commercial vehicles. We see that the local content rate in vehicles produced for export in Türkiye has also increased with the power of the supply industry. We have achieved this success with both capital power and human resource power.

With the contribution of the supply industry, the automotive industry has become a sector that consolidates its leadership in exports. The supply industry also takes a significant share of the automotive industry's exports. Of course, the biggest power behind the supply industry reaching this point originates from the automotive main industry. The two sub-sectors feed and develop each other mutually.

There is a constantly developed quality awareness in the sector. Considering the markets where we lead in exports, these are the markets with the highest quality expectations. Otherwise, it is not possible to be present in

these markets. Our automotive supply and main industry are ahead of many countries in the world when it comes to quality awareness. Our continuous innovation, constant adaptation to new technologies, young population, and dynamic engineering infrastructure ensure our success in producing quality products.

Furthermore, the recent investments in new-generation vehicles in Türkiye encourage our suppliers to be part of the transformation in the automotive industry. With this transformation, we expect R&D investments in the supply industry to increase rapidly.

#### Risks and Opportunities of the Türkiye Automotive Industry

As the automotive industry, we aim to maintain our export leadership in the coming years, contribute to the value-added exports of the national economy, and become a strong part of the global automotive industry. For this, we need to adapt to the changes in the mobility era, which presents both risks and opportunities.

Maintaining our local content rate should be our main goal as a strong part of the mobility era that transforms vehicles into smart devices. Electric vehicles are perhaps the most powerful part of this ongoing transformation. Alongside electric vehicles, autonomous and shared vehicle technologies are also becoming increasingly widespread in line with our sector's zero-carbon targets.

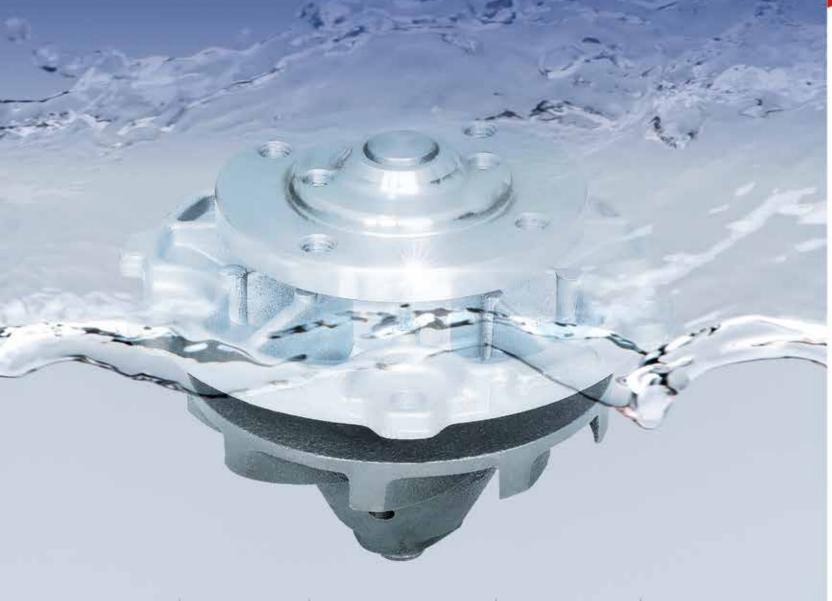
Türkiye automotive companies must meet the increasingly stringent emission standards set by the EU. If we do not take the necessary steps, we may face carbon taxes in exports to EU countries. In fact, European countries, the largest market of the Turkish automotive industry with a share of nearly 80 percent, lead the way in developing a mobility framework that ensures a sustainable future by considering climate change. With all these developments, it becomes inevitable to reduce carbon emissions in production, consumption, and logistics in the Türkiye automotive sector.

The number of motor vehicle production units in Türkiye is too high to be compared with countries such as Poland, Hungary, or Romania, countries that, we can say, compete with us. With a production of 1.5 million units, we are the 13th largest producer in the world. Poland, Hungary, and Romania have an annual production of around 500 thousand units. Slovakia and the Czech Republic, which have production figures closer to ours, mainly produce passenger cars.

In our country, many OEMs are able to produce vehicles ranging from cars, buses, trucks, and tractors, in high quality, speed, and quantity. Therefore, our supply industry has developed and adapted accordingly. The domestic market potential of our country is far above all these countries.

Again, compared to these countries, we can say that work motivation is high and absenteeism is much lower in our country. We also have the advantage of a young population, having more than 60 years of experience in the automotive industry, a qualified workforce for the automotive industry, a domestic market with high growth potential, advanced export experience, a well-developed infrastructure and service sector, and R&D investments.

# Aracınızdaki Ferahlık KALE OTO RADYATÖR Su Pompası















# Eco-Friendly Vehicle Investments Preferring Our Country is Highly Valued

Supporting the domestic market for eco-friendly vehicles, the widespread market adoption and development of new technologies, encouraging consumer habits to form around this, and developing the automotive ecosystem in parallel with global developments in this direction are highly valuable.

#### **ALI HAYDAR BOZKURT**

Automotive Distributors' and Mobility Association (ODMD) President

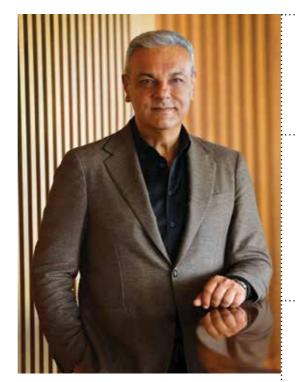
ver the past 3.5 years, we have faced various global adversities such as the pandemic, the earthquake disaster, and economic challenges. 2023 has been a year of ups and downs and it was a quite unusual year. Within the year, we realized that we would surpass the figure of 1 million. In 2023, the total automotive domestic market reached a total market size of 1,283,952 units, a 55.2% increase compared to the previous year.

When making forecasts for 2024 and considering sectoral expectations, we see that everyone has different evaluations for this year. However, looking at the current picture, we anticipated that a market with as high numbers as the previous year would not occur.

#### A Market Expectation of over 1 Million Emerged

In the first half of 2024, the total market for passenger cars and light commercial vehicles in Türkiye increased by 3.7% compared to the same period of the previous year, reaching 577,981 units. Passenger car sales increased by 7.3% to 462,955 units in the January-June period of 2024, while the light commercial vehicle market decreased by 8.7% to 115.026 units.

As of June 2024, the automobile and light commercial vehicle market de-



creased by 5.3% compared to June 2023 and realized as 106,238 units. In June, passenger car sales decreased by 3.6% compared to the same month of the previous year, reaching 87,858 units, while the light commercial vehicle market decreased by 12.6% to 18,380 units

We foresee that the slowdown will continue in the coming months. According to the average estimates of all member firms of ODMD, a market expectation of over 1 million emerges for 2024.

The tightening measures for our economy have been, of course, reflected rapidly in our sector, which acts in parallel with the economy. The impact of interest rate hikes has

TÜRKİYE AUTOMOTIVE TOTAL DOMESTIC MARKET IN 2023

BILLION 283 THOUSAND 952 UNITS

AUTOMOTIVE TOTAL DOMESTIC MARKET IN THE FIRST HALF OF

577
THOUSAND 981 UNITS

In the first half of 2024, the total market for passenger cars and light commercial vehicles in Türkiye increased by 3.7% compared to the same period of the previous year, reaching 577,981 units.



7,5%

Electric car sales took a 7.5% share in the 2023 automobile market in Türkiye.



**ENGINE PARTS** 







Google Play

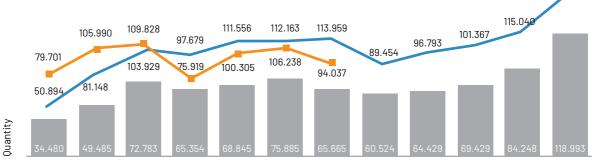
**○** TecRliance

/www.yenmak.com.tr

158.653

#### TÜRKİYE PC AND LCV MARKET





	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
10 Year Average ——	34.480	49.845	72.783	65.354	68.845	78.885	68.665	60.524	64.116	69.429	84.248	118.993
2023 ——	50.894	81.148	103.929	97.679	111.556	112.163	113.959	89.454	97.793	101.367	115.040	158.653
2024 —	79.701	105.990	109.828	75.919	100.305	106.238	94.037					
24/23	56,6%	30,6%	5,7%	-22,3%	-10,1%	-5,3%	-17,5%	-100,0%	-100,0%	-100,0%	-100,0%	-100,0%
24/10 Average	131,2%	112,6%	50,9%	16,2%	45,7%	40,0%	43,2%	-100,0%	-100,0%	-100,0%	-100,0%	-100,0%

also begun to be felt. As you know, the use of credit is a crucial factor in our sector, but the fact that the Banking Regulation and Supervision Agency (BDDK) base rates that determine the amount of credit have not been updated for some time, and the difficulties in accessing credit restrict credit opportunities for consumers. According to the statements made, these measures will continue in the economy in the upcoming period.

Moreover, since the base amounts that determine the special consumption tax rate have not been updated for a long time, the lack of vehicles benefiting from the lower tax bracket affects demand and consumers. We are in a year of 2024 where a different financial discipline is being followed. As a sector, we always support the adoption of a structure that follows a certain trend, not only for our sector but also for the country's economy with a healthier fiscal policy.

The automotive industry is one of the important industries of developed and developing countries, and our sector plays a significant role as the driving force of Türkiye's industry. As we know, the automotive sector is undergoing significant techno-

logical change and transformation today. We are perhaps witnessing a technological transformation of a century. Each passing day, new models equipped with environmentally friendly technologies are presented to consumers in global markets.

According to the fuel types of cars sold in the European automobile market in 2023, electric cars had a share of 14.6%, hybrid cars 25.8%, plug-in hybrids 7.7%, gasoline cars 35.3%, and diesel cars 13.6%.

#### Eco-Friendly Vehicle Investments Preferring Our Country is Highly Valued

In Türkiye, in the 2023 car market by engine type; gasoline car sales had a share of 66.8%, diesel car sales 13.8%, hybrid car sales 10.8%, LPG car sales 1.1%, and electric car sales 7.5%.

At this point, I would like to say on behalf of our sector that we need to approach the subject from the perspective of eco-friendly vehicles. Infrastructure targets, preparations, and incentive mechanisms similar to the ones set by European countries should continue to be established step by step. I find it very valuable that new eco-friendly vehicle investments prefer our country.

Supporting the domestic market for



eco-friendly vehicles, the widespread market adoption and development of new technologies, encouraging consumer habits to form around this, and developing the automotive ecosystem in parallel with global developments in this direction are highly valuable. Countries all over the world, especially in Europe, are taking serious actions on ecofriendly cars. It is crucial for our country's automotive sector, which is a significant part of the global automotive industry, to follow developments and make necessary preparations and implementations closely.



50 YEARS OF EXPERIENCE IN SPECIAL STEEL PRODUCTION



Since 1970, we have been adding strength to the future by bringing our steel and parts together with many sectors, especially the automotive, renewable energy, defense and machinery industries.





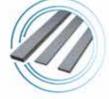
















Round Bars Ø15-95 mm (EN 10060) Peeled Round Bars Ø 13–80 mm (EN 10278) Spring Steel Flat Bars Profile A (EN 10092-1)

Spring Steel Flat Bars Profile B (EN 10092-1) Spring Steel Flat Bars Profile C (EN 10092-1)

Stabilizer Bars

+90 224 243 12 30





info@cemtas.com.tr



FACTORY
Organize Sanayi Bölgesi A.O.S. Bulvarı No: 3 16140 Bursa/TURKEY



# **Investments Prove Our Country's Potential**

#### Dr. K. ALTUĞ ERCİŞ

#### **Automotive Authorized Dealers** Association (OYDER) President

The automotive industry in Türkiye is one of the most critical sectors of our country. It is vital for the national economy with its export power, labor quality, and employment provided. Today, our automotive sector, which exports to more than 200 countries worldwide. has repeatedly achieved "zero defect" successes in local productions representing the brands. Türkiye is an automotive country, not only a supplier of finished products but also a very serious supplier of sub-industry. Quality is very important in automotive production, and the most critical factor in quality is "labor quality." Our country is at a very advanced level in this regard. Qualified labor and investments in the machine park can easily compete with the world. Türkiye is no longer a country with cheap labor for the automotive sector; it is a production center with quality labor. We see that manufacturers in the sector cooperate with the Industry and Commerce Chambers in their provinces and universities on R&D and training issues. The increase in such Industry and Science collaborations will also advance our country in innovation. As a result, our country has a strong competitive power in workforce, labor quality, and machinery investments. In the coming period, aiming to compete with the world in

research and development will be more appropriate for us.

#### **Eco-Friendly Vehicles Are a Sound Investment for the Future**

Producing eco-friendly next-generation vehicles in our country is a very sound choice. It is in line with the global trend. There is a transition to cleaner energies in all countries; electric and hybrid technology are significant aspects of this transition. Investments are also being made in battery technology. The automotive sector first reduced the production of diesel engines; many brands, especially European manufacturers, have removed diesel engine options from their product range. This was followed by hybrid and electric models. The general trend is in this direction and it is clear that it will become more widespread. Our locally produced TOGG brand forming its product range with electric models is a sound in-

vestment not only for today but also for the future.

#### The Potential of Türkiye's **Automotive Market**

The potential of Türkiye's automotive market is at a very high level. During the 3-year pandemic period from 2020 to 2022, the market ranged between 740,000 and 780.000. The main reason for this was the low supply that could not meet the high demand. The lack of supply was due to issues in the supply chain, mainly the chip crisis and the unavailability of parts. In 2023, when the supply problem was resolved and vehicle availability increased, the market suddenly exceeded 1.232 million, breaking a record in Türkiye. However, the conditions are not suitable to see our country's true potential. The taxes applied to car sales are at very high levels compared to European and global averages. Therefore, if taxes were to be reduced to normal levels, we could see the real potential. With tax levels reduced to European averages, we predict that the annual sales potential of our country would be between 1.5 million and 2 million and that this would be repeated regularly every year. The total investment of authorized dealers in our country is over 5 billion dollars. Moreover, these investments, which consist of nearly 1,300 office towers, are entirely domestic capital. They provide direct employment for 120,000 people. These significant investments are proof of the belief in our country's po-

tential.

## automechanika

数

**FRANKFURT** 

We will take place at Automechanika Frankfurt 2024.
Come by and find out advanced performance
of Tirsan drive shafts!



# We Are Successful On a Global Scale

As a country, we are one of the largest contributors to the automotive and automotive aftermarket sectors on a global scale. Domestic production in the aftermarket market will continue to progress towards its goals by increasing its strength day by day with our strong organized distributors and the alternative brand advantages they offer.

#### **ALI ÖZÇETE**

### Turkish Automotive Aftermarket Association (OSS) President

As a country, we are one of the largest contributors to the automotive and automotive aftermarket sectors on a global scale.

n 2024 and in the coming years, key issues affecting the automotive aftermarket sector include the production of necessary spare parts for electric and autonomous vehicles, the spread of digitalization, automation, and the widespread use of robotics. We can say that these changes will significantly impact the dynamics of supply chains and relationships among service providers. We foresee that these trends, especially for electric vehicles, will positively affect the demand in the automotive and automotive aftermarket sectors. On a global scale, electric vehicles are one of the issues that concern our sector the most. China's strong investments in the electric vehicle market have raised some concerns regarding production and exports in European countries. The interest in and investment in electric vehicles in Türkiye is at a very high level. We anticipate that this trend will continue to increase in the coming years. We can say that Türkiye is at a crucial point in

the competition between Europe and China regarding electric vehicles, thanks to our production potential and geographical location. As a country, we are one of the largest contributors to the automotive and automotive aftermarket sectors on a global scale. Domestic production in the aftermarket market will continue to progress towards its goals by increasing its strength day by day with our strong organized distributors and the alternative brand advantages they offer.

# What Are Your Thoughts on the Use and Production of Eco-Friendly and Next-Generation Vehicles in Our Country?

In recent years, the automotive aftermarket sector has been striving to renew itself and increase its capacity to meet the demand for electric and autonomous vehicle technologies, which are among the most fundamental changes in the automotive sector. Electric vehicles are much more environmentally friendly and provide significant benefits in terms of energy efficiency compared to traditional internal combustion engine vehicles.

The rise in environmental awareness, concerns about air pollution and climate change, and the search for energy independence, along with features such as autonomous driving capabilities, advanced safety systems, and integrated software updates, have led to a rapid increase





We can say that Türkiye is at a crucial point in the competition between Europe and China regarding electric vehicles, thanks to our production potential and geographical location. As a country, we are one of the largest contributors to the automotive and automotive aftermarket sectors on a global scale. Domestic production in the aftermarket market will continue to progress towards its goals by increasing its strength day by day with our strong organized distributors and the alternative brand advantages they offer.



# **BIO-CIRCLE GT**

# Akıllı Parça Yıkama

Akıllı BIO-CIRCLE GT parça yıkama makinesi, her zaman kullanıma hazırdır ve tutarlı, optimum temizlik performansı sunar.



Rahat, Ekonomik, Güvenli, Kullanıcı Dostu, Çevre Dostu.

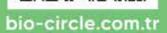












in demand and interest in electric vehicles. Regarding electric vehicle sales, the EU has set emission reduction targets of 55% for 2030 and 100% for 2035 for cars. In EU countries, the bans on internal combustion engines and the state support to increase electric vehicle sales, including tax incentives and exemptions based on emission levels, are expected to lead to progress in production. We foresee that with the implementation of similar measures in our country, the production of electric vehicles will accelerate and increase.

In the production phase, using recyclable materials and renewable energy will create a more environmentally friendly production chain. Although the manufacturers' investments in R&D and P&D to adapt their existing infrastructure capacities to electric vehicle technologies will have a negative trend at first, rapid depreciation rates in the next few years will recover these expenses. On the sales side, tax reductions and increased access to credit will significantly boost electric vehicle sales in the coming years. As the automotive aftermarket sector, we see the increasing impact of globalization at every stage up to the sales and distribution phases, creating more sustainable and environmentally friendly production stages. We can say that these changes will significantly impact supply chain dynamics and relationships among service providers. As electric vehicles will reduce the consumption of petroleum-based products, joint steps with companies producing alternative energy sources for electric vehicles will



provide cooperation opportunities in the energy and automotive aftermarket sectors

to meet the demand for electric

technologies, which are among

the most fundamental changes

and autonomous vehicle

in the automotive sector.

#### How Do You Evaluate the Spare Parts Sector in Türkiye?

The automotive aftermarket sector has been one of the fastest-growing sectors in Türkiye since overcoming the 2001 crisis. The increase in economic welfare levels led to a significant rise in demand in the automotive sector and indirectly rapidly increased the need for our sector.

Although the growth rate in the sector is susceptible to various local and global factors, when we evaluate it in terms of periods like 5 and 10 years ago, we see record levels of growth. The later vehicle replacement age in Türkiye compared to European countries keeps the need for the automotive aftermarket alive. In today's circumstances, due to the difficulties in accessing loans, harsh movements in exchange rates, and high SCT expenses, automobile users are oriented towards the second-hand vehicle market, which has mobilized our sector considerably. During the pandemic period, when production and distribution networks dependent on Asian countries were completely restricted, we took over this role thanks to our geographical location and high production potential.

The efforts we made with all our sector stakeholders helped us achieve a very successful global performance. This significantly contributed to our country's increased presence on the world stage. As the automotive aftermarket sector, we are one of the main actors in global competition. We have the capacity to produce and distribute many parts in the sector. Our country's geographical location provides a significant advantage for maintaining high export potential, and having a young population in employment rates offers us significant benefits on a global scale.

## **Cooperation Opportunities in the Energy and Automotive Aftermarket Sectors**

As the automotive aftermarket sector, we see the increasing impact of globalization at every stage up to the sales and distribution phases, creating more sustainable and environmentally friendly production stages. We can say that these changes will significantly impact supply chain dynamics and relationships among service providers. As electric vehicles will reduce the consumption of petroleum-based products, joint steps with companies producing alternative energy sources for electric vehicles will provide cooperation opportunities in the energy and automotive aftermarket sectors.









### YOUR BEST OPTION AT QUALITY CONTROL OUTSOURCING WITH GLOBAL COVERAGE

#### **OUR SERVICES**

- Sorting & Rework
- Final Product Quality Control
- Sub Assembly
   & Production Support
- CSL 2 Inspections
- Resident Engineering
- Process Improvements





#### **IZMIR** / Merkez

Akdeniz Mah. Vali Kazım Dirik Cad. 35210 No:32/32 Konak - İZMİR Tel : +90 232 425 10 77 • Faks: +90 232 425 10 97 office.tr@exactsystems.com

#### BURSA / Ofis

Emek Zekaigūmüşdiş Mah. Sanayi Cad. No:610 K:3 D:12 Emek Osmangazi Bursa Turkey Tel : +90 224 242 22 81 • Faks: +90 224 242 22 82 office.tr@exactsystems.com

#### KOCAELÍ / Ofis

Hacı Halil Mah. Ali Rıza Efendi Cad. Gökçe Plaza 1 No:25 K:4 D:402 Gebze Kocaeli Turkey Tel :+90 262 641 71 39 • Faks: +90 262 641 71 38 office.tr@exactsystems.com

# The Mobility Ecosystem Rapidly Prepares for Electrification With New Products

Our sector continues to digitalize its processes and provide holistic services through data-driven advanced analytics to design the best customer experience.

#### KAĞAN YAŞA

Car Rental and Mobility Organizations Association (TOKKDER) President

## How Do You Evaluate the Future and Competitiveness of the Turkish Automotive Industry?

The automotive industry has long been the driving force of our country's exports with its consistent growth and competitiveness. As in every business line, the automotive industry's ability to closely follow today's global trends and offer products that meet customer expectations at the highest level is crucial for its competitiveness and sustainable growth. Globally, perhaps the most pressing issues today are environmental pollution and climate change. Leaving a clean and livable world for future generations should be a priority for all of us. In this respect, for transportation, transitioning from fossil fuel-powered cars to low-emission vehicles, or in other words, electric cars, as quickly as possible is essential. The European Union, one of Türkiye's largest export markets, plays a leading role in combating climate change with its policies and continues its efforts in line with the goal of "making Europe the world's first climate-neutral continent by 2050". Türkiye is also rapidly preparing for electrification with its mobility ecosystem, increasing infrastructure, and new products. The launch of our domestic electric car TOGG, invest-



ments in lithium-ion battery production, and the growing number of locations with fast-charging stations are significant steps in this direction. I believe that with its outstanding performance in this process, our country's automotive industry will further enhance its competitiveness.

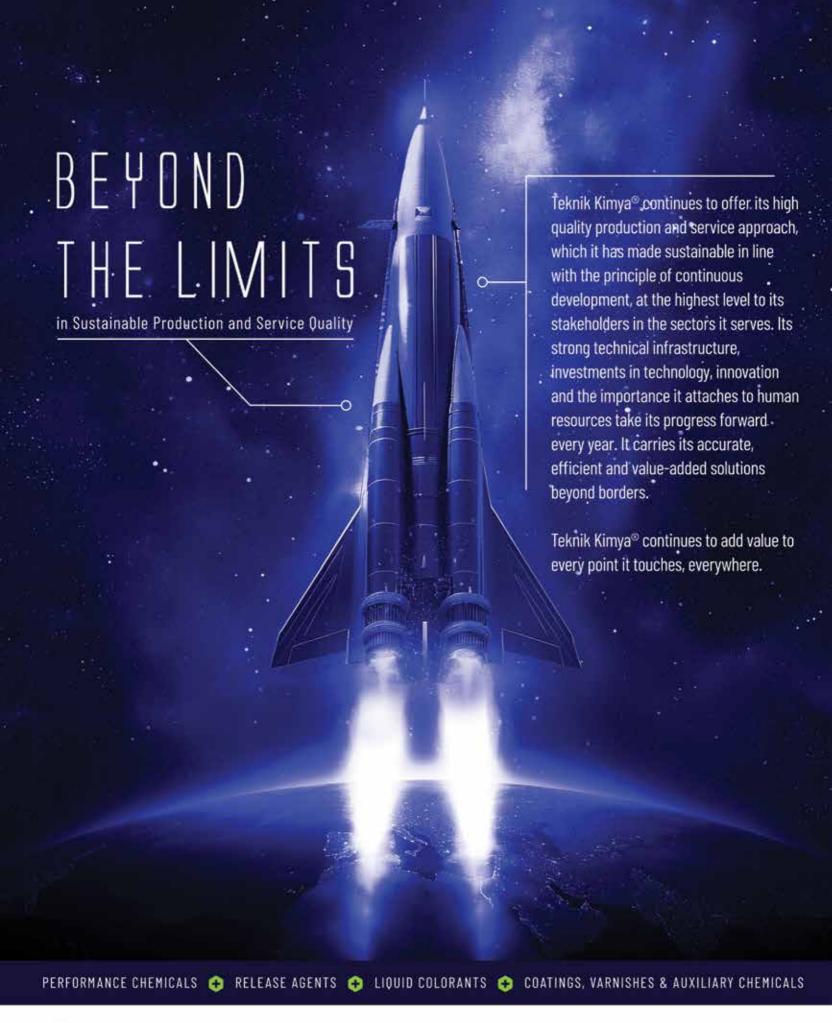
## What Are Your Thoughts on the Development of the Car Rental Sector in Our Country?

According to the TOKKDER Operational Leasing Sector Report for the first quarter of 2024, the operational leasing sector's total assets reached 194 billion TL, with a total vehicle count of 254,000. Compared to nonbank financial institutions, our sec-



According to the TOKKDER Operational Leasing Sector Report for the first quarter of 2024, the operational leasing sector's total assets reached 194 billion TL, with a total vehicle count of 254,000. Compared to non-bank financial institutions, our sector's asset size has reached a significant point.

I estimate that there are 2.5 million motor vehicles used for business purposes in our country. Despite the many advantages it offers in terms of efficiency, savings, and risk management, only about 10% of vehicles used for business purposes in our country are financed through operational leasing. In the European Union countries, the share of operational leasing in financing company vehicles has increased from 48% to 57% over the past seven years. Based on all these data, I can say that our country's operational vehicle rental sector will grow steadily and sustainably in the coming period.

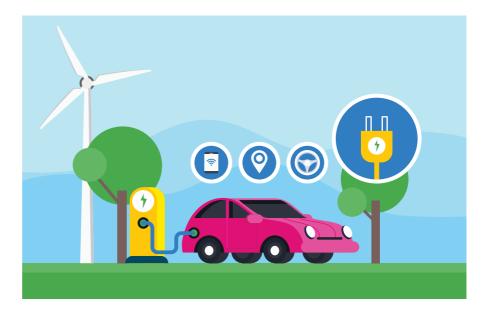






tor's asset size has reached a significant point. Our sector's equity capital has reached 95 billion TL, almost half of our sector's total assets. Our sector finances half of the required funds with its equity. The non-performing loan (NPL) ratio in our sector is below 1%, indicating a healthy structure. Although our sector's vehicle fleet has grown by 3-4% in the last two years, the actual growth potential of our sector is much larger. According to Eurostat data for 2022, while the number of cars per 1,000 people in the European Union is 560, this number is only 167 in our country. I estimate that there are 2.5 million motor vehicles used for business purposes in our country. Despite the many advantages it offers in terms of efficiency, savings, and risk management, only about 10% of vehicles used for business purposes in our country are financed through operational leasing. In the European Union countries, the share of operational leasing in financing company vehicles has increased from 48% to 57% over the past seven years. Based on all these data, I can say that our country's operational vehicle rental sector will grow steadily and sustainably in the coming period.

I also think that the daily car rental sector will perform well this year. If the desired activity in tourism is achieved, the demand for daily car rentals will also be positively affected. In such a case, I estimate that the daily car rental sector will serve



its customers with approximately 70,000 vehicles on average annually and 110,000 vehicles during the high season.

## What Are Your Predictions for the Future of Mobility and Car Rental? What New Trends Will Emerge?

Vehicle ownership is no longer among the priorities of the new generation. The "Y" generation in Europe and America has been preferring the rental system over vehicle ownership for a while. Interest in vehicle ownership further decreases with the "Z" generation. New-generation consumers prefer the "pay-per-use" alternative in transportation.

Our sector continues to digitalize its processes and provide holistic services through data-driven advanced analytics to design the best customer experience. Most sales in daily car rentals come from digital channels; we predict that almost all sales in daily car rentals will be made through digital channels within the next 3 to 5 years. Investments in digitalization by our sector will increase further. The world is also moving in this direction. Considering customer expectations and needs, providing customers with a faster and more comfortable car rental experience and keeping it sustainable through innovation and digitalization strategies has become the biggest focus of our industry.

In parallel with policies to combat climate change and energy conservation, we expect the number of hybrid and electric vehicles in the car rental. sector's fleet to increase day by day. The data from the TOKKDER Operational Leasing Sector Report supports this prediction. According to our report, the share of hybrid and electric vehicles in the operational car rental sector's fleet has increased significantly. While the share of hybrid and electric vehicles in the operational car rental sector's fleet was 6.5% at the end of 2021, this share reached 9.4% by the end of the first guarter of 2024. Thanks to the rental method, consumers can obtain electric vehicles with reasonable monthly rental payments, without the initial cost and the risk of second-hand price uncertainty.



# **BIGGEST COMPANIES WORKS** WITH trex

You cannot evaluate without measuring, you cannot improve without evaluation!

trex allows you to easily discover your losses in your production field, finds time, performance and quality losses. It guides you to identify points where you need improvement.

In this way;

Reduction in your production / spare parts inventory holding costs Reduction in maintenance costs

Reduction in the number and frequency of failures

Reduction in fault response times

Reduction in defect/scrap output

takes place, YOUR PROFITABILITY INCREASE!











# We Continue to Accelerate Our Industry Both in Türkiye and In International Markets

By focusing on the solution to global problems, we work to transform our business models and products in line with the future for a waste-free society, based on renewable energy. We offer new solutions for the development of connected vehicles, autonomous driving and alternative fuel vehicle technologies including electric.



#### **TUĞRUL ARIKAN**

Anadolu Isuzu General Manager

How do you assess the future and competitiveness of the Turkish automotive industry?

he automotive industry stands out as the locomotive sector in the export operations of the Turkish economy. The Turkish automotive industry plays an active role in many countries of the world today with its strong production capacity, innovative approaches and globally competitive structure.

Our competencies in production and engineering along with the speed at which we adapt new technologies to our internal processes enable us to produce high-quality and reliable vehicles and increase our competitiveness in global markets. Thanks to all these positive qualities, we can easily state on numerous national and international platforms that today Türkiye is an automotive base.

As one of the most recent developments and has been put into effect in the EU, the Green Deal is an example that closely concerns and has a high probability of affecting the Turkish automotive industry, as it is the most important commercial region in terms of geography. The efforts implemented today to adapt to the climate crisis shape the durability and existence of automotive manufacturers in the short, medium and long term. The automotive industry is experiencing change on multiple axes with the acceleration of the climate crisis, disruptive technologies and changing consumer preferences.

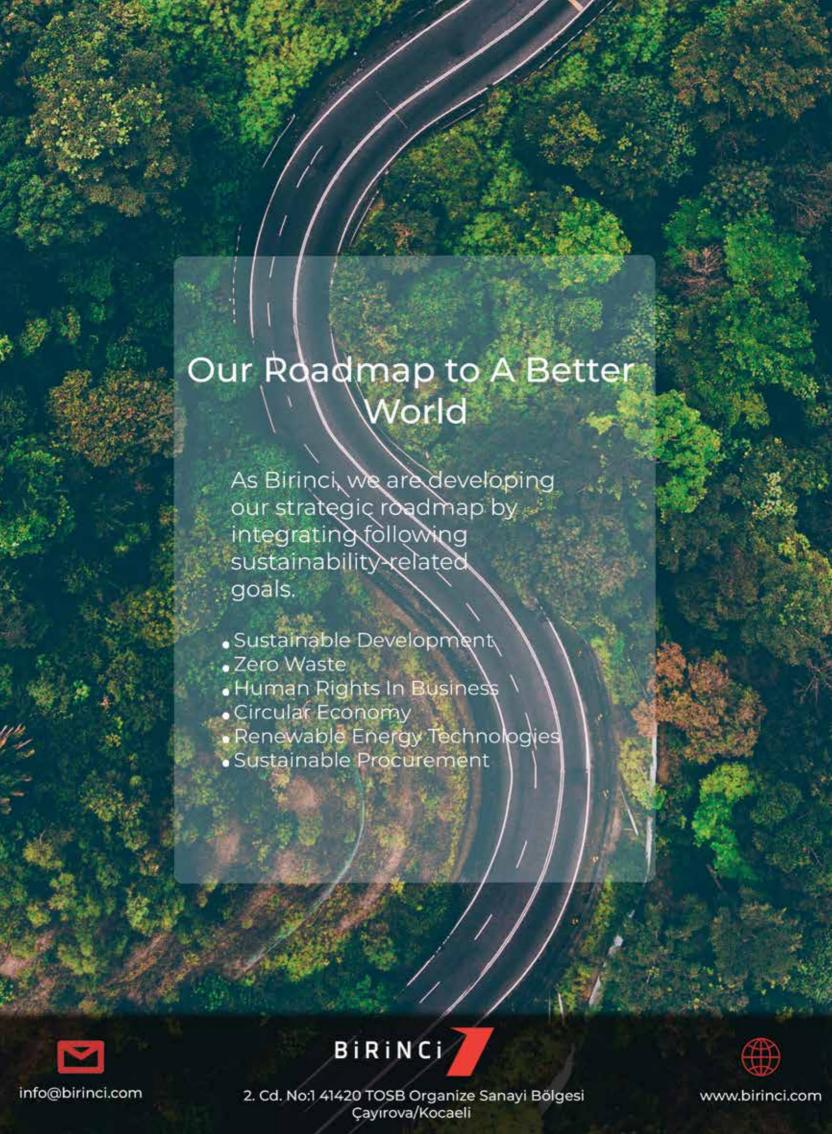
We predict that the global competitiveness of the Turkish automotive industry will further increase with increasing investments in sustain-

Our new electric bus and midibus models, which we add to our product portfolio every year, are a concrete indicator of this fact. In this field, we have fully electric models we offer to the market with various features such as Novociti Volt, NovoVolt and Citivolt. Our new micro truck, which we offer as a solution to the field of micromobility, has been developed as a 100% electric and is an environmentally friendly model that many businesses can easily use in their processes.



ability and environmentally friendly technologies in the coming years. It will also continue to play an active role in the development and production of all transportation alternatives that are compatible with the mobility ecosystem, interconnected and safe, and will add value to our lives.

To be strong in terms of global competitiveness, we need to pay close attention to some issues. In this respect, the supply industry structure suitable for disruptive technological developments and cooperation with an expanded domestic ecosystem become crucial. We must continue to be strong on the human resources side as well. The strength of our hu-



man resources will play a major role in helping us become a pioneer in the future.

#### Can you tell us about your brand's new projects and production?

We are one of the well-established and leading industrial organizations in our country, and as a brand actively operating in the automotive industry, we manage the transformation experienced in our sector today with a proactive approach.

By focusing on the solution to global problems, we work to transform our business models and products in line with the future for a waste-free society, based on renewable energy and has a high level of prosperity. We offer new solutions for the development of connected vehicles, autonomous driving, shared use and electric fuel engines. We design and develop 100% electric vehicle models by closely following the developments in the sector with a large staff consisting entirely of Turkish engineers in our R&D center. Our new electric bus and midibus models, which we add to our product portfolio every year, are a concrete indicator of this fact. In this field, we have fully electric models we offer to the market with various features such as Novociti Volt, NovoVolt and Citivolt. Today, these vehicles are exported to many European countries. Likewise,



we have a new product in a new category, which is a first in the industry. Our new micro truck, which we offer as a solution to the field of micromobility, has been developed as a 100% electric and is an environmentally friendly model that many businesses can easily use in their processes. It is currently in production and is planned to start sales in 2025

As part of the transformation of our business, we use digital optimization applications for efficiency in our production processes and ensure the control and management of all our production processes with the smart factory infrastructure.

As Anadolu Isuzu, we will continue to accelerate our sector both in Türkiye and international markets by constantly interacting with technology and energy companies, public institutions and municipalities to meet the need for safe, sustainable and useful solutions.

#### automotive supply industry?

How do you see the potential of our

The Turkish automotive supply industry has great potential with its high-quality standards, flexible production capabilities and wide product range. Our local suppliers constantly develop innovative solutions and produce following international standards to be competitive in the global market. This makes significant contributions to the sustainable growth of our automotive industry and increased global competitiveness. The dynamic structure and rapid adaptation ability of our supply industry allow us to quickly adapt to changes in the sector and meet customer demands in the best way possible.

Today, in the event of a global emergency, problems can occur in the supply chain all over the world and negatively affect manufacturers. However, when we evaluate the same situation for the Turkish automotive supply industry, our supplier industry is much stronger than Europe.

By increasing our localization rates and closely following the developments in the world, we anticipate that we will be a valuable part of many solutions developed for both the climate crisis and digital transformation in the coming years. Undoubtedly, the supply industry also needs to expand its ecosystem for this. In particular, new automotive regulations emphasize electronic parts and software security. We will always stand by them as a partner company for the expansion of our supply industry in these areas.

#### **USING ENVIRONMENTALLY FRIENDLY AND NEW GENERATION VEHICLES**

Important steps are being taken in Türkiye regarding the use and production of environmentally friendly and new generation vehicles. Users have begun to shape their purchasing preferences in the automotive market according to brands' contributions to the fight against the climate crisis, the ecological footprint of the vehicles they produce, and alternative energy options. Therefore, we believe that this increasing interest and motivation on both the consumer and producer side will significantly accelerate the development of the sector.

These goals and the investments made today in electric and alternative

fuel vehicles in both the commercial and passenger car categories show how great the potential in this field is.

Undoubtedly, both passenger and commercial vehicle consumers follow these developments very closely. Breakthroughs in many areas such as not only environmentally friendly vehicles but also charging infrastructure, appropriate support and financing need to continue. Although we follow developments in these areas a little behind Europe, we expect an increase in the number of environmentally friendly new generation vehicles in our country in the coming years.

# The vital link in the manufacturing supply chain your heat treatment partner in Turkey...

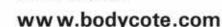
- Vakum altında sert lehimleme /Vacuum brazing
- Vakum altında sertlestirme /Vacuum hardening
- Vakum altında yaşlandırma /Vacuum Aging
- Corr-I-Dur®
- Karbonitrasyon / Carbonitriding
- Sementasyon / Carburising
- Normalizasyon / Normalising
- Indüksiyon / Induction hardening
- Islah / Hardening & tempering
- Nitrokarbürizasyon / Nitrocarburising

#### I İsil işlemler ve özel termal prosesler için dünyanın lider tedarikçisi



Bodycote Istaş Isıl İşlem Sanayi ve Ticaret A.Ş. Merkez: Kemalpaşa OSB, İzmir Kemalpaşa Asfaltı No:17/1 Kemalpaşa / İZMİR

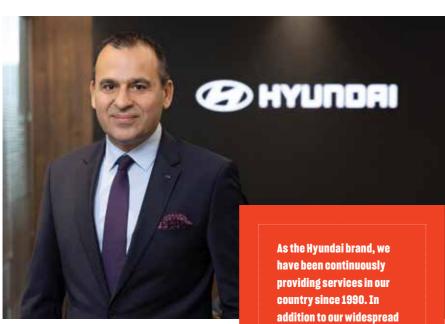
Tel: +90 232 877 03 00 Faks: +90 232 877 03 01 e-mail: info-tr@bodycote.com





# We Are Prioritizing The Widespread Adoption of Electric Vehicles in Our Country

In line with our new strategy, we are prioritizing the widespread adoption of electric vehicles in our country. In fact, 30% of our current product range consists of fully electric vehicles. With our competitive pricing strategy and the strength of our extensive dealer network in both sales and after-sales services, we are striving to become one of the leading brands in the electric vehicle market.



#### **MURAT BERKEL**

Hyundai Assan General Manager

#### The Türkiye Automotive Industry Has a Large Ecosystem

he Türkiye automotive industry, with an annual production capacity of approximately 2 million units, has been a leading sector contributing to the country's economy as the export champion for the past ten years. The automotive sector, which guides the Turkish economy, not only consists of automobile manufacturers but also creates a large ecosystem together with suppliers, sub-industries, and service providers. Türkiye is currently the 6th largest car manufacturer in Europe and the 17th largest in the world. In 2023, automotive exports increased providing services in our country since 1990. In addition to our widespread sales and after-sales operations throughout Türkiye, we have produced over 2.5 million vehicles since 1997 and have increased our production capacity to more than 230,000 vehicles today. As a brand contributing to both the national economy and exports, we also hold a significant position in domestic market sales.

by 5% in terms of units compared to 2022, reaching 1,018,247 units. This growth in Türkiye demonstrates our increasing competitiveness in the international market. The production capacity of new brands entering the market will elevate our

country's capacity both in terms of export economy and global competitiveness. Moreover, recent plans by Far Eastern brands to invest in our country and establish production facilities highlight the geopolitical importance of our industry and, indeed, our nation

Being at the top of global rankings not only in production capacity but also in labor quality proudly emphasizes the competitive strength of our sector on the international stage. It is not just the primary manufacturers but also the part and component suppliers, service and maintenance providers, dealers, and distributors that significantly contribute to the development and sustainability of the industry.

#### We have produced over 2.5 million vehicles since 1997

As the Hyundai brand, we have been continuously providing services in our country since 1990. In addition to our widespread sales and after-sales operations throughout Türkiye, we have produced over 2.5 million vehicles since 1997 and have increased our production capacity to more than 230,000 vehicles today. As a brand contributing to both the national economy and exports, we also hold a significant position in domestic market sales. At our factory in İzmit, we produce the i10, i20, and Bayon models with the craftsmanship of Turkish workers and export these vehicles to more than 40 countries. We also offer 13 models with various versions in the domestic market. Our factory employs approximately 2,000



Geleceğin araçları alüminyum ile daha hafif ve daha çevreci

Globally, government incentives, tax advantages, and usage benefits promised within the framework of mandatory emission regulations in some countries naturally allow consumers to prefer electric models. Additionally, purchasing these highly comfortable and well-equipped technological models at a lower cost due to tax advantages is spreading the mobility experience.



Today, significant developments in production are occurring parallel to the rapidly increasing market share of electric vehicles in our country. In addition to our domestic electric car, the selection of Türkiye as a production hub by other brands strengthens our global power, facilitates consumer access to these models, and positively changes perspectives.

personnel, and together with all our stakeholders, this number exceeds 15,000.

In line with our new strategy, we are prioritizing the widespread adoption of electric vehicles in our country. In fact, 30% of our current product range consists of fully electric vehicles. With our competitive pricing strategy and the strength of our extensive dealer network in both sales and after-sales services, we are striving to become one of the leading brands in the electric vehicle market. Additionally, technologies such as 5G, Edge Computing, and advanced ana-

lytics systems that will make these technologies smarter are expected to play a key role in the future of the automotive industry. We aim to increasingly incorporate connectivity and digitalization into both production and the comfort and equipment features of our vehicles.

## The relationship between original equipment manufacturers and suppliers is shaped by technology

With the advancement of technology, investments in electrification, connectivity, and autonomous driving in the automotive world are increasing day by day. In this transformation process, technology companies have started to join traditional suppliers. It is planned that Turkish technology companies will play a more significant role in the automotive industry and support long-term profitability.

In a systemic approach where a large amount of data is collected, analyzed. shared over networks, and turned into valuable information, the importance of technology companies is growing every day. In short, it is not sufficient to discuss the future solely in terms of raw material or spare parts supply. Therefore, as the diversity of products increases, it is clear that the automotive supply industry will also partake in this transformation, with future vehicles expected to be electric, autonomous, connected, upgradable, and shareable. In other words, the relationships between the original equipment manufacturers and the supply industry are being shaped by technology, and there is ample potential for this to double in strength and competitive environment in the future.

With steps to be taken, particularly in the fields of batteries and software, the potential of the supply sector will help enhance our strength on the global stage. This ecosystem, which is not limited to the domestic market, will also transcend national borders and contribute to the development of original equipment manufacturers in R&D and innovation. In addition to Türkiye's potential for automobile production, it also needs to play an active role in battery and chip pro-

duction. We have ample infrastructure and know-how to achieve this

#### Electric cars will shape the future of the automotive industry

The shift in demand due to the increasing preference for electric vehicles compared to the past five years has started to influence the automotive sector in terms of both sales and product variety. Today, there are over 500 electric models worldwide, and consumers can make purchases according to their budgets. Government incentives, tax advantages, and promised usage benefits within the framework of mandatory emission regulations in some countries naturally enable consumers to prefer electric models. Additionally, purchasing these highly comfortable and wellequipped technological models at a lower cost due to tax advantages is spreading the mobility experience.

Faced with growing demand, both manufacturers and the supply chain are focusing on the production and development of electric models. Significant developments in production are also underway in our country, parallel to the rapidly increasing market share of electric vehicles. The selection of Türkiye as a production hub by different brands, in addition to our domestic electric car, not only adds to our global strength but also facilitates consumer access to these models and positively changes perspectives. The advantages and high comfort of domestically produced models in the domestic market will increase the potential of the Turkish automotive industry worldwide and its contribution to the economy. The investments of other countries in türkiye, especially with new manufacturers, will enrich the sector and allow consumers to become more informed.

Electric cars will shape the future of the automotive industry, and as a nation, we must be part of this transformation. Manufacturers and stakeholders who adapt to this change will guide the industry and the economy. The number of electric vehicles in our country is expected to exceed 1.5 million by 2030 and could reach up to 4 million by 2035.



#### **Triggering Motion Since 1984**

**CAVO AUTOMOTIVE ENGINEERING GmbH** 

Faaliyet/Scope: Kalite ve Mühendislik Ofisi Lokasyon/Location: Almanya/Germany

Almanya/ Germany

#### CAVO AUTOMOTIVE SLOVAKIA S.R.O

Faaliyet/Scope: Üretim Tesisi/Production Facility Lokasyon/Location: Slovakya/Slovakia

Slovakya/ Slovakia



CAVO AUTOMOTIVE NA INC

Faaliyet/Scope: Kalite ve Mühendislik Ofisi/ Engineering and Quality Office

> Türkiye/ Turkey

#### CAVO OTOMOTIV TIC. VE SAN. A.Ş.

Faaliyet/Scope: İdari Merkez, Üretim Tesisi/ Headquarter-Production Facility Lokasyon/Location: Türkiye/Turkey





# One Step Ahead in the Future of Mobility

Our goal is to develop derivatives of new and existing products in partnership with our stakeholders and licensors, aiming to be present in all segments of passenger transportation. Karsan continues to strengthen its core business line, particularly as an OEM, by developing and bringing to market "innovative products and services" throughout the entire process, from the concept stage to market launch, in the public transportation sector.



#### OKAN BAŞ

Karsan, CEO

# How do you evaluate the future and competitiveness of the Turkish automotive industry?

he Turkish automotive sector has evolved from simple assembly operations into a fully developed industry with advanced design and production capabilities, attracting over \$18 billion in investments since 2003. In 2023, the Turkish automotive industry produced 1.4 million vehicles, making it the third-largest producer in Europe, with 70% of this production being exported. The industry is expected to continue its growth by leveraging its competitive labor force, dynamic market, and strategic location ad-

vantages. Increasing localization rates and strong R&D investments will further strengthen Türkiye's position in the global automotive market. Türkiye has consistently ranked first in Europe for bus production, establishing itself as a key player in the global bus manufacturing sector. The country's skilled workforce and strategic advantages in R&D have been crucial in achieving this success.

#### Could you talk about your brand's new projects and production?

Karsan, with its 58 years of experience in the Turkish automotive industry, is at the forefront of producing commercial vehicles for leading automotive companies worldwide, including its own brand, in state-of-the-art facilities. Since 1981, Karsan has been manufacturing commercial vehicles and operates with a capacity to produce 20,000 vehicles

annually on a single shift at its Bursa Hasanağa plant. The Hasanağa Facility is a highly flexible plant capable of producing various types of vehicles, from passenger cars to heavy trucks, minibusses to buses. Located just 30 kilometers from Bursa city center, the facility spans 203,000 square meters, with 99,000 square meters of covered area.

Karsan, with its 58 years of experience in the Turkish automotive industry, is at the forefront of producing commercial vehicles for leading automotive companies worldwide, including its own brand, in state-of-the-art facilities. Since 1981, Karsan has been manufacturing commercial vehicles and operates with a capacity to produce 20,000 vehicles annually on a single shift at its Bursa Hasanağa plant. The Hasanağa Facility is a highly flexible plant capable of producing various types of vehicles, from passenger cars to heavy trucks, minibusses to buses.

Karsan is the only independent multi-brand vehicle manufacturer in Türkiye, continuing its work tirelessly with the vision of being "One Step Ahead in the Future of Mobility." Our goal is to develop derivatives of new





# TURKISH LEADING MANUFACTURER OF COLD FORMED BOLTS, SCREWS AND DRAWING PARTS.



Çetin Cıvata Sanayi ve Tic. AŞ.

Muratbey Merkez Mah., Fabrikalar cad., No:17, 34540 Çatalca - Istanbul Turkey Tel: +90 212 778 1100 Fax: +90 212 778 1109

Web: www.cetin.com.tr E-mail: info@cetin.com.tr

and existing products in partnership with our stakeholders and licensors, aiming to be present in all segments of passenger transportation. Karsan continues to strengthen its core business line, particularly as an OEM, by developing and bringing to market "innovative products and services" throughout the entire process, from the concept stage to market launch, in the public transportation sector. We manage the entire automotive value chain, from R&D to production, marketing, sales, and after-sales activities. Karsan manufactures the JEST and ATAK models under its brand, and with the launch of e-JEST in 2018 and e-ATAK in 2019. Karsan has maintained its position as the market leader in Europe for the past four years.

In 2021, we collaborated with the technology company ADASTEC to develop the world's first Level 4 autonomous bus, the Autonomous e-ATAK. In the same year, we introduced the fully electric e-ATA family, including 10-meter, 12-meter, and 18-meter models. By 2022, with the launch of the e-ATA HYDROGEN model, Karsan became the first and only company in Europe to offer a complete range of fully electric vehicles from 6 meters to 18 meters. As of 2022, Karsan also manufactures Megane Sedan vehicles for the Renault brand. Addition-

The Turkish supply industry has the advantage of offering a wide range of products that cater to different automotive segments and quickly adapting to changing market conditions. The sector, which places great importance on **R&D** investments, is rapidly increasing its competitiveness in the global market by developing innovative solutions and advanced technology products.



ally, in late 2023, Karsan became the first European bus manufacturer to enter the Japanese market with the right-hand drive e-JEST model.

Moreover, Karsan achieved a world first with the Autonomous e-ATAK operating on a 5-kilometer route at Michigan State University in the U.S. for 1.5 years. In Norway's city of Stavanger, the Autonomous e-ATAK has been carrying ticketed passengers in open traffic since 2022 and recently expanded its route to include a tunnel, making it the first autonomous vehicle to pass through a tunnel successfully. Following projects in the U.S., Norway, France, Romania, and Türkiye, Karsan is now operational in Finland, achieving 75,000 kilometers of autonomous driving experience and transporting over 27,000 passengers across seven different locations. Most recently, Karsan has initiated an airport autonomous project in Rotterdam, Netherlands, and by the end of 2024, with the delivery of two Autonomous e-ATAK buses, Karsan will be the first brand to achieve airport transfers with autonomous vehicles. In addition to new projects, Karsan's Autonomous e-ATAK will be Switzerland's first autonomous bus in 2025

## How do you see the potential of our country's automotive supply industry?

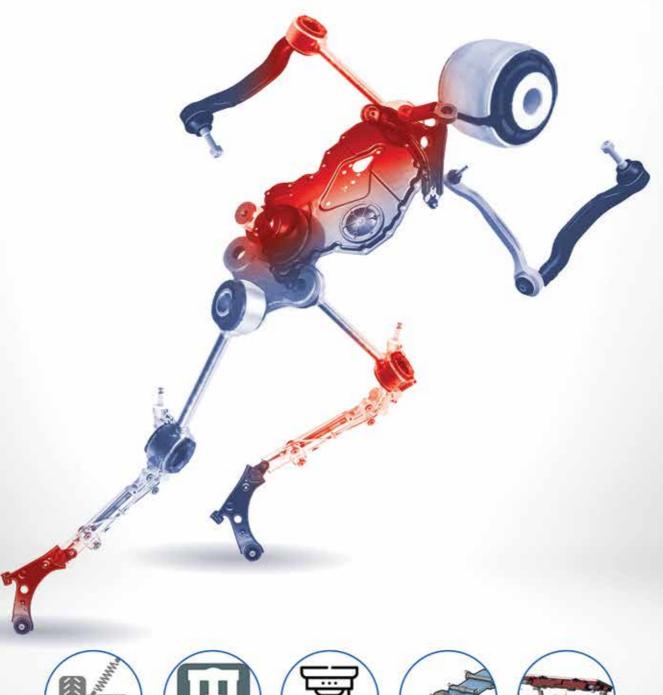
It is possible to establish supplier partnerships that will develop future technologies by combining factors

such as technology production in line with market developments, localization of electrification components, innovative solutions, adherence to legal requirements, cost reduction projects, and rapid response to demand variability. Türkiye's automotive supply industry plays a significant role in the country's economy with its strong potential. Türkiye's long-standing history in automotive production has increased the capacity of the supply industry to produce at international standards. Türkiye's strategic geographical position between Europe, Asia, and the Middle East provides significant advantages in logistics and supply chain management. This makes Türkiye an attractive production and supply center for both local and international companies. The Turkish automotive supply industry has the capacity to produce with high quality and competitive costs, making Türkiye a preferred supply source, especially for automotive manufacturers in Europe.

The Turkish supply industry has the advantage of offering a wide range of products that cater to different automotive segments and quickly adapting to changing market conditions. The sector, which places great importance on R&D investments, is rapidly increasing its competitiveness in the global market by developing innovative solutions and advanced technology products. The industry ensures the continuity of quality production

## NO SLOWING DOWN **KEEP IT GOING**

We are proud to be with you with our experience on every path that carries you forward.





Steering and Suspension Parts



Hot Forging



Forming



Rollform



**Tool Production** 





- A Member of Ditas Group

with a well-educated and experienced workforce, high technical knowledge, and competence levels. Furthermore, Türkiye has benefited greatly from technology transfers and know-how sharing thanks to its collaborations with many international automotive manufacturers and foreign investments. The rapidly growing domestic market also presents a significant opportunity for the automotive supply industry, as increasing vehicle demand stimulates the growth and development of the supply sector. Considering all these factors, Türkiye's automotive supply industry is taking significant steps toward gaining a more prominent position in the global automotive industry.

# What are your thoughts on the use and production of environmentally friendly and new-generation vehicles in our country?

Zero-emission vehicles operate without any combustion process or fossil fuel use. These vehicles are typically defined as electric vehicles or those based on hydrogen fuel cell technology. Electric vehicles operate using electric motors and produce zero emissions. Vehicles equipped with hydrogen fuel cell technology generate electricity by reacting hydrogen with oxygen, resulting in no emissions other than water vapor. Therefore, these vehicles are considered environmentally friendly and contribute to reducing the carbon footprint. Hydrogen vehicles emit only water vapor and are considered zero-emission vehicles. By producing only water vapor during combustion, they reduce the carbon footprint and contribute to combating climate change. The hydrogen fuel cell technology enables efficient conversion of energy into electricity, leading to energy savings and more efficient use of resources.

Various developments in Türkiye focus on the use and production of environmentally friendly and new-generation vehicles. Especially in recent years, increased environmental awareness and government policies have encouraged the use of electric vehicles and other environ-



mentally friendly technologies in Türkiye. The government provides various incentives to promote the widespread use of electric and hybrid vehicles. Special tax reductions and incentives for electric vehicles aim to increase their use. Investments are also being made to develop the charging infrastructure.

Electric buses and minibuses are becoming more common in public transportation. Many municipalities prefer environmentally friendly vehicles for urban transport, aiming to reduce both carbon emissions and fuel costs. For instance, electric bus

> In 2021, we collaborated with the technology company ADASTEC to develop the world's first Level 4 autonomous bus. the Autonomous e-ATAK. In the same year, we introduced the fully electric e-ATA family, including 10-meter, 12-meter, and 18-meter models. By 2022, with the launch of the e-ATA **HYDROGEN model, Karsan** became the first and only company in Europe to offer a complete range of fully electric vehicles from 6 meters to 18 meters.

fleets are expanding in major cities like Istanbul and Ankara. The use of renewable energy sources is encouraged to maximize the environmental benefits of electric vehicles. Given Türkiye's high potential for solar and wind energy, vehicles charged with electricity generated from these sources further reduce the carbon footprint. Türkiye also places great importance on R&D activities in the automotive sector. Projects aimed at developing new-generation environmentally friendly vehicle technologies are being carried out through collaborations between universities, research centers, and the private sector. All these developments demonstrate that Türkiye is taking significant steps in the field of environmentally friendly and new-generation vehicles, with the aim of progressing further in this area in the future.

At Karsan, we are advancing with the vision of leaving a more livable world for future generations, leading the way in the public transportation sector by bringing new technologies in line with customer demands. We are committed to becoming a global brand, and in this context, we will continue to be one step ahead in the future of mobility with over 1,100 electric vehicles operating across 23 countries.

## Ege Endüstri

INDEPENDENT FRONT AXLE
SUSPENSION SYSTEM





Kemalpaşa Caddesi No:280 35060 Pınarbaşı-İzmir, TURKEY P. +90 232 491 14 00

www.egeendustri.com.tr









# We Develop on Innovative Projects



#### **MEHMET ŞERMET**

MAN Türkiye CEO

The Turkish automotive industry holds significant potential for future growth and increased competitiveness

s we progress into an era of technological innovation and sustainability, the industry's ability to adapt and embrace these changes is crucial. The sector is well-positioned to leverage its strong manufacturing base, skilled workforce, and strategic geographical location. Additionally, investments in R&D and a focus on sustainable practices are vital for maintaining a competitive edge on the global stage. By continuing to innovate and invest in new technologies, the Turkish automotive industry can strengthen its position as a key player in the global

At MAN Truck & Bus, we are continually working on innovative projects to enhance our production capabilities and product offerings. One of our most significant recent initiatives is the development of our Bus Test and Development Center in Ankara. This facility focuses on the advancement of electric buses, which are a critical component of our sustainability strategy. By 2025, we aim for half of our new city buses to be electric, and by 2030, we project that 90% of our newly registered buses in Europe will be battery-electric. Additionally, we are expanding our production of e-Coaches, with a test fleet planned for 2025. These projects are part of our commitment to achieving climate-neutral mobility and adhering to the goals of the Paris Climate Agreement.



At MAN Truck & Bus, we are continually working on innovative projects to enhance our production capabilities and product offerings. One of our most significant recent initiatives is the development of our Bus Test and Development Center in Ankara. This facility focuses on the advancement of electric buses, which are a critical component of our sustainability strategy.

The Turkish automotive supply industry has immense potential to contribute to the global automotive ecosystem. With a robust manufacturing infrastructure and a commitment to quality and innovation, Turkish suppliers are well-equipped to meet the demands of the evolving automotive market. The focus on sustainability, as demonstrated by MAN Türkiye's solar energy initiative, sets a benchmark for environmentally responsible production. By leveraging renewable energy sources and enhancing energy efficiency, the industry can achieve significant cost savings and reduce its carbon footprint, thereby enhancing its global competitive-

türkiye is making strides in the use and production of environmentally friendly and new-generation vehicles. The establishment of solar energy systems at MAN Türkiye's Ankara factory, which will cover nearly 45% of the plant's annual electricity consumption, exemplifies the country's commitment to sustainable production. This initiative not only reduces carbon emissions but also stabilizes energy costs over the next decade. As the automotive industry moves towards electrification, Türkiye's focus on clean energy and innovation will be instrumental in driving the adoption of new-generation vehicles. These efforts align with global trends and position Türkiye as a leader in the transition to sustainable mobility.



## Linde E25-E30 Elektrikli Forklift

Tüm **Linde MH** modelleri, istifleme konusundaki çeviklik ve hassasiyetin birleşmesi sonucu depolamada operasyonel verimlilik sağlar. 1252 elektrikli forklift serisinin tamamı, iki adet birbirinden bağımsız verimli, güçlü \*SRM sürüş motorlarına ve ayrıca bakım gerektirmeyen kompakt bir aksa sahiptir. Çift pedal kontrolü, hızlı geri manevra yapılmasına olanak tanır. Linde MH'nin üstün sürüş teknolojisi sayesinde hızlı yükleme boşaltma yaparak operasyonel maliyetlerinizi azaltırsınız.

\*Senkron relüktans motor



# We Are An Important Global Player That Successfully Represents Our Country

As Mercedes-Benz Türk, we made great achievements at our Hoşdere Bus and Aksaray Truck Plants in 2023. Since our foundation, we have achieved the highest volume of annual production in trucks and buses. Since 2001, when we began truck exports, we have reached the highest number of exports in trucks.

#### SÜER SÜLÜN

#### Mercedes-Benz Türk Chairman of the Board of Directors

## How do you evaluate the future and competitive power of the Turkish automotive industry?

he Turkish automotive industry has recently become a key player in the global automotive industry with high-tech production methods, quality workforce, and strategic geographical position. In particular, export-focused production approach contributes to the growth of industry. In addition to these, investments in the areas of sustainability and innovation also contribute to the rapid development of the industry.

As Mercedes-Benz Türk, we are the leading company of Türkiye's heavy-duty commercial vehicle industry as well as being a key global player, successfully representing our country. Our mission is to become a pioneer in the industry and contribute to the national economy. In addition to our investments amounting to €1.4 billion since our foundation, we carry out production operations in our production plants, both for Türkiye and for the entire world. Besides the exports of vehicles, we also contribute to the national economy with our R&D centers exporting engineering services from Türkiye to the world. We anticipate the needs of our customers and offer them products and services exceeding their expectations. Therefore, we build strong and sustainable relationships in both domestic and international markets. By fostering continuous development and improvement of culture, we increase our competitive power. We aim to address the needs of both today and tomorrow while strengthening our leading role in the industry by shaping the sustainable and innovative mobility solutions of the future.

## Can you tell us about the new projects and production of your brand?

As Mercedes-Benz Türk, we made great achievements at our Hoşdere Bus and Aksaray Truck Plants in 2023. Since our foundation, we have achieved the highest volume of annual production in trucks and buses. Since 2001, when we began truck exports, we have reached the highest number of exports in trucks. Our Aksaray Truck Plant manufactured 27,680 trucks in 2023, which was the highest number of production to the date and also manufactured 7 out of every 10 trucks exported from Türkiye. Our Hoşdere Bus Plant broke a new record with the production of 4,308 buses and exported 85% of the buses it manufactured to the EU.

Besides production, we continue our digital transformation investments and R&D activities at a fast pace. Since 2016, we have made a total of 786 patent applications, 440 applications with Truck R&D Teams and 346 applications with Bus R&D Teams while 242 of these applications were registered. We also lead the industry with our investments such as our rain test bench, which were implemented at our Aksaray



Our Aksaray Truck Plant manufactured 27,680 trucks in 2023, which was the highest number of production to the date and also manufactured 7 out of every 10 trucks exported from Türkiye.

We find the potential of our automotive supply industry to be highly strong. We anticipate that this industry will grow even stronger with the increase in the capacity of domestic production, encouraging R&D investments, and ensuring integration with global supply chains.



# The Safer Way

# THERE IS ALWAYS A WAY TO STOP **CHOOSE THE SAFER WAY**













Truck Plant based on the Industry 4.0 technologies, as well as driving assistance safety systems calibration facilities, and our SCADA project optimizing the processes in the plant performance. We focus on offering solutions contributing to the circular economy and reducing the carbon footprint with the FOREST and BASE projects, incentivized by the EU's Horizon Europe program in the R&D field. We lead the way not only with our projects, but also by taking various initiatives. As one of the sponsors of this year's 'Acces2Tech Türkiye' event, bringing together the Europe's technology ecosystem and Turkish manufacturing companies, we provided support for the development of technology trends and innovative solutions in the industry, and we are committed to maintaining our leading role in this respect.

Undoubtedly, one of the main agendas of the entire automotive industry is the carbon footprint and the transformation that comes along. At this point, as Mercedes-Benz Türk, we continue our efforts to reduce our carbon footprint. We take into account our goal of mitigating the impacts of climate change and adapting to climate change in our product development, supply chain and production activities. By 2030, we have the target of meeting at least 55% of our total energy consumption from renewable energy. In this regard, we commissioned our power plant with an installed capacity of 1.3 MWp at our Aksaray Truck Plant last year.

We launched our 'Consolidation Center', which will provide direct access to the plants of Daimler Truck AG, our parent company, in Brazil and the USA from Türkiye by consolidating the truck and bus OEM parts of local vendors at a single point. The Consolidation Center provides a great opportunity to open new doors for our local vendors who have production capacity, but cannot export or who already export indirectly to other locations through Germany to access global markets.

Mercedes-Benz Türk, we continue our efforts to reduce our carbon footprint. We take into account our goal of mitigating the impacts of climate change and adapting to climate change in our product development, supply chain and production activities. By 2030, we have the target of meeting at least 55% of our total energy consumption from renewable energy. In this regard, we commissioned our power plant with an installed capacity of 1.3 MWp at our Aksaray Truck Plant last year. Recently, we commissioned a part of the power plant with an installed capacity of 6.2 MWp.

Recently, we commissioned a part of the power plant with an installed capacity of 6.2 MWp. We have been one step closer to our renewable energy goal by opening the new 7.5 MWp solar power plant at full capacity in total. With our new power plant, we meet half of the total annual electricity need of our production plant.

#### How do you envisage the potential of our automotive supply industry?

We find the potential of our automotive supply industry to be highly strong. We anticipate that this industry will grow even stronger with the increase in the capacity of domestic production, encouraging R&D investments, and ensuring integration with global supply chains. As Mercedes-Benz Türk, we continue our investments in this respect, together with our parent company Daimler Truck AG. We launched our 'Consolidation Center', which will provide direct access to the plants of Daimler Truck AG, our parent company, in Brazil and the USA from Türkiye by consolidating the truck and bus OEM parts of local vendors at a single point. The Consolidation Center provides a great opportunity to open new doors for our local vendors who have production capacity, but cannot export or who already export indirectly to other locations through Germany to access global markets.

With this center, our local vendors have the opportunity to ship their truck and bus OEM parts to Brazil and the USA in a shorter time frame and in a more convenient manner. The center will also help local vendors increase their export volumes, benefit from economies of scale, and achieve cost advantages. As Mercedes-Benz Türk, we will continue to increase our contribution to the economy of our country by contributing to the supply chain and our local vendors.

# What are your thoughts about the use and production of green and next-generation vehicles in our country?

Greenhouse gas (GHG) emissions are a key factor triggering climate change. When we look at the sources of total greenhouse gas emissions around the world, the sectors causing the highest GHG emissions are energy generation, industrial production, agriculture, and transportation, respectively. In Türkiye, it is industrial production, energy generation, and transportation, respectively.

Although the transportation industry is not the main cause of climate change in this sense, we still cannot overlook the potential contribution of transformation in mobility both to our country and the world.

Within this scope, our country has made a commitment to reduce the total greenhouse gas emissions released into the atmosphere compared to the reference scenario (based on the GHG emissions volume expected in 2030). In addition, it pursues the goal of becoming a carbon-neutral country by 2050 within the framework of the Paris Agreement signed in 2016. On the other hand, we need more investments in infrastructure, regulations, and an incentive system to give impetus to this transformation. In the light of these data, we are aware of our responsibility as Mercedes-Benz Türk to maintain mobility in a more sustainable and environmentally-conscious manner, both in Türkiye and around the world, and we will continue our efforts with this awareness.



#### Stock Systems

a.Standard Steel Pallet b.Special Steel Pallet



# We Strongly Invest in R&D, Innovation And Localization

Renault has been present in Türkiye for 55 years, together with our strong and reliable partner OYAK, we produced more than 7.5 million cars up to now and one out of every 7 cars in Türkiye is a Renault brand car.

urkish automotive industry is playing very significant role in our region. We believe that Türkiye will keep its strategic role in the future thanks to a robust supplier infrastructure, skilled workforce, and the planned investment. In 2023, the sector reached a production of 1.5 million vehicles. The key challenge for the Turkish automotive industry will be to keep the competitiveness versus other markets. As Oyak Renault, we are proud to contribute to the success and development of the automotive industry.

Our investment plan for the future models with locally produced new generation hybrid engines contributes to the progress of the Turkish automotive industry. We strongly invest in R&D, innovation and localization which are vital for maintaining and enhancing the competitiveness.

#### Leading in Passenger Car Production and Exports

Oyak Renault Automobile Factories became Türkiye's largest passenger car manufacturer in 2023, producing 325,366 vehicles. With the export of 230,397 cars in 2023, we also hold a leading position in passenger cars export.

Renault has been present in Türkiye for 55 years, together with our strong and reliable partner OYAK, we produced more than 7.5 million cars up to now and one out of every 7 cars in Türkiye is a Renault brand car. Türkiye plays a major role as one of our most important hubs for the "Renault International Game Plan 2027". Our ambition is to be the market leader in Türkiye, to strengthen our brand with new products, especially to de-



Oyak Renault Automobile
Factories became Türkiye's
largest passenger car
manufacturer in 2023,
producing 325,366 vehicles.
With the export of 230,397 cars
in 2023, we also hold a leading
position in passenger cars
export.

#### **JAN PTACEK**

Chairman Oyak Renault velop a strong presence in the SUV segment, and to deploy an electrification strategy based on hybrid and electric vehicles.

In this regard, we proudly presented the all-new Renault Duster, featuring innovative technical equipment, enhanced features, and a powerful design produced in Oyak Renault plant in Bursa. It is a first step of our International Game Plan 2027 that will allow us to produce 4 new Renault models in Türkiye. We will transform our Bursa plant into an export center not only for Europe but also for the rest of the world. This will expand our global presence by exporting future C SUVs to more than 50 countries.

Also, Oyak Renault has achieved high level of industrial excellence and reached one of the best quality levels in Europe. New Renault Duster launch is a new milestone in the development of our industrial presence in Türkiye.



# MAKE A DIFFERENCE WITH RAW MATERIAL SOLUTIONS

IN EVERY ASPECT OF LIFE





Also, Oyak Renault has achieved high level of industrial excellence and reached one of the best quality levels in Europe. New Renault Duster launch is a new milestone in the development of our industrial presence in Türkiye.



We will transform our Bursa plant into an export center not only for Europe but also for the rest of the world. This will expand our global presence by exporting future C SUVs to more than 50 countries.

Our investment plan for the future models with locally produced new generation hybrid engines contributes to the progress of the Turkish automotive industry. We strongly invest in R&D, innovation and localization which are vital for maintaining and enhancing the competitiveness.



To realize this ambitious plan, Renault Group, and its partner Oyak plan to invest more than 400 million euros through the Oyak Renault joint venture to implement the production of new models in Türkiye.

#### Supporting Local Suppliers in Global Markets

As Oyak Renault, we believe in the global potential of the Turkish automotive supply industry able of competing in the global automotive market and stands out with its continuous development and innovation. We are supporting our local suppliers in Türkiye to succeed in

global markets. These collaborations form the cornerstone of our achievements.

The Turkish supply industry continuously renews and strengthens itself with investments in R&D and innovation activities. Their ability to adapt to new technologies required to produce electric and hybrid vehicles will further solidify the global success of the Turkish supply industry.

#### Pioneering the Production of Hybrid Vehicles

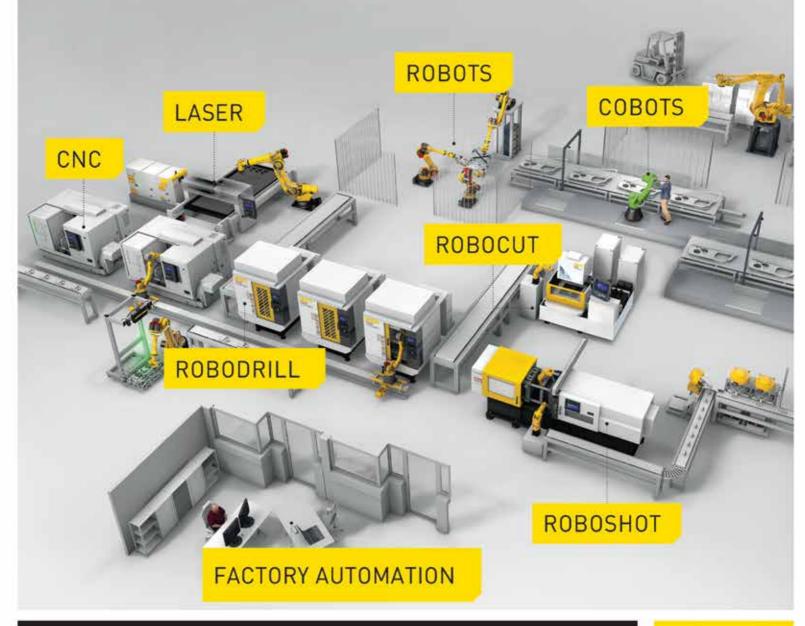
In Europe and Türkiye, we see the increasing demand for electrified vehicles. It is especially the hybrid technology which will have significant importance in the coming years. Oyak Renault is an only Turkish carmaker of the passenger cars who is producing the hybrid models with the engines produced in Türkiye. Currently, the investments are ongoing to start the production of the new generation locally produced hybrid engine in 2025.

We believe, this is contributing to the transformation of the automotive industry and increasing its export potential.



THE FACTORY AUTOMATION COMPANY

# **Smart automation 100% FANUC**





CNC, Servo Motors, Laser Systems



Robots, Controllers, Accessories and Software



ROBOCUT High Precision Wire EDM Machine



ROBODRILL

High Precision Vertical Machining



ROBOSHOT

100% Electric Plastic Injection Moulding



Industry 4.0 Solutions



# Tofaş Continues to Develop New Projects With a Focus on Sustainability and Innovation

At Tofaş, we continue to develop new projects with a focus on sustainability and innovation. We attach great importance to electrification and also continue our R&D efforts to increase the share of local production in the domestic market. As we have managed to attract new projects to our country and increase the capacity of our plants, we have a strong performance in both the domestic and export markets.

#### CENGIZ EROLDU Tofas ceo

#### Türkiye has also enhanced its competitiveness in areas like productivity and quality

Türkiye boasts a robust industrial base in the automotive sector. What began in the late 1960s as small-scale operations and basic assembly lines has now evolved into a significant player in the global automotive industry. Today, Türkiye ranks as the 13th largest vehicle producer and the 14th largest exporter, with global automotive exports reaching \$19.4 billion in 2023. This achievement places the Turkish automotive industry among the top three countries that have seen the greatest increase in exports over the past twenty years.

A distinctive feature of Türkiye's automotive industry is that all major global automotive groups have operations within the country, setting Türkiye apart from other manufacturing nations.

Initially, the Turkish automotive industry developed a strong manufacturing base. Since 2000, however, the industry has expanded its expertise to encompass the entire value chain, integrating global best practices. While boosting production capacity, Türkiye has also enhanced its competitiveness in areas like produc-



tivity and quality. Furthermore, the industry has significantly grown its research and development capabilities. Public support has been a key driver of this progress.

As the automotive industry moves forward, maintaining the competitiveness of Türkiye's automotive sector is crucial. To stay ahead, we must redefine our competitive edge to align with the demands of the new era. Both the public and private sectors are actively working towards this goal. Global manufacturers have

Global manufacturers have begun including electric, hybrid, and plugin hybrid models in their production lines in Türkiye. The government has also reinforced its commitment by establishing a policy framework that prioritizes the use of public resources for the development and production of new technologies and products.

We attach great importance to investing in research and development in order to strengthen our competitiveness. At Tofaş R&D, we work on the successful development and launch of new product projects and the further development of existing products.



Fiat brand is a pioneer in connectivity in Türkiye and is bringing this technology to the masses with Fiat Connect application, which was developed by Tofaş R&D. We continue developing new value-added services for 'Fiat Connect'.

#### Electromobility powered by Festo.

#### FESTO



Electrification in the automotive industry is gathering pace and redefining mobility.

The use of energy-efficient drive solutions is opening up more and more opportunities for future-oriented, green and economical vehicle concepts. We look forward to helping you set your innovations in motion with appropriate solutions for the electromobility.



begun including electric, hybrid, and plug-in hybrid models in their production lines in Türkiye. The government has also reinforced its commitment by establishing a policy framework that prioritizes the use of public resources for the development and production of new technologies and products.

Within this framework, I am confident that the collective expertise of all the stakeholders in Türkiye's automotive industry will lead to success in the coming period.

## Last year was remarkable for Tofaş with the production of the 7<sup>th</sup> million vehicle.

At Tofaş, we are focusing on the right products for customers' changing needs, developing innovative products and services

Last year was remarkable for Tofaş with the production of the 7<sup>th</sup> million vehicle. In 2023, Tofaş has produced 239,428 vehicles and maintained its 16 percent share in Türkiye's total vehicle production. In addition, Egea; which was developed and produced in Tofaş has also succeeded in becoming the most popular car in Türkiye for the last 8 years. Fiat brand maintained its leading position in the Turkish automotive market for the fifth consecutive year with a market share of 15.7%.

We also focus on developing new mobility solutions and connectivity. Fiat brand is a pioneer in connectivity in Türkiye and is bringing this technology to the masses with Fiat Connect application, which was developed by Tofaş R&D. We continue developing new value-added services for 'Fiat Connect'.

At Tofaş, increasing production efficiency and controlling costs are a constant and indispensable part of our activities to increase our competitiveness. We carried out more than 1,700 projects in the field of digitalization in the last 5 years. In particular we have focused on technologies such as the Internet of Things (IoT), advanced analytics and machine learning, image processing and collaborative robots (cobots).

We attach great importance to investing in research and development in order to strengthen our competitiveness. At Tofaş R&D, we work on the successful development and launch of new product projects and the further development of existing products. With Tofas R&D's Product Development and Automotive Software Department, which we have established at Izmir Institute of Technology Technopark Software Center, we are conducting studies on various topics such as infotainment system software, connectivity, calibration, data science and artificial intelligence applications. Our R&D center takes on important responsibilities in development of new products that are produced and brought to market in different regions of the Stellantis Group. Thanks to these external project activities, we stand out in the Stellantis world and export both the engineering and the end products.

At Tofas, we continue to develop new projects with a focus on sustainability and innovation. We attach great importance to electrification and also continue our R&D efforts to increase the share of local production in the domestic market. As we have managed to attract new projects to our country and increase the capacity of our plants, we have a strong performance in both the domestic and export markets. By expanding our current production, we aim to further consolidate Türkiye's position in the automotive industry.

#### Potential of automotive supply industry

Today, our supply industry trails closely behind the Turkish automotive industry's assertive global standing. Our internationally recognized efficiency and quality performance is achieved in collaboration with the companies within our supply industry. Thanks to the investments and production efforts of our suppliers, we have localized up to 70% of some products. These companies no longer merely support the operations of global firms within Türkiye; they are increasingly integrating into global supply chains through direct investments in multiple locations. The number of such companies continues to grow daily.

Türkiye has become a key hub for the global supply industry, much like it is for our main automotive industry. Currently, over 30 of the world's 100 largest supply companies have a presence in Türkiye.

Our supply industry has evolved to not only excel in production but also to engage in product development activities. Out of the 1,312 R&D centers in Türkiye, 165 have been established by companies within the automotive ecosystem. Global engineering firms,





Crimp Terminals & Housings Crimpkontakte & Gehäuse Terminal & Konnektör

**Precision Metal Stamping** Präzisions-Stanztechnik Hassas Metal Şekillendirme

Plastic Injection Kunststoff-Spritzguss Plastik Enjeksiyon

Surface Treatment Oberflächentechnik Metal Kaplama













- . Precision Metal Stamping
- . Plastic Enjection
- . Surface Treatment

































which operate within our supply industry, contribute to projects both domestically and internationally. Some of these companies have even emerged as leaders in specialized areas within their respective ecosystems.

This potential positions Türkiye to maintain a strong foothold in the global automotive industry in the years ahead. I am confident that new investments in products and technology will offer significant opportunities for our supply industry to diversify and transform its existing product range. This transformation will be further accelerated by the support programs recently announced by the public sector, which aim to enhance the entire value chain.

# At Tofaş, we are committed to becoming a carbon-neutral plant and complying with national and international climate policy requirements.

The world is rapidly adopting this technology, and naturally, we must be part of this trend. Significant steps are being taken in this direction by both the public sector and the industry. Recently, our global and domestic vehicle manufacturers have accelerated their investments in these types of vehicles. These investments extend beyond vehicles; we are now witnessing substantial investments in Türkiye in one of the most crucial components of this technology—the battery.

The public sector has made this technology a priority within its strategic



framework. The development and introduction of this vehicle type in Türkiye, supported by both supply and demand-side legislation, is a key component of the public strategy. In the coming years, the government aims to establish an electric vehicle production capacity of 1 million vehicles and a battery capacity of 80 GW within the country's borders.

in Türkiye, 165 have been

established by companies

within the automotive

ecosystem.

Market developments have also gained momentum. Although the current share of this vehicle type in the market is still small, we are

seeing an upward trend. This is a significant step forward for the development and adoption of this technology in our country. As the number of environmentally friendly models increases and consumers gain better financial access to these models, the share of such vehicles in total sales will also rise. A critical prerequisite for this growth is the rapid expansion of the charging infrastructure, and it's evident that efforts in this area are also accelerating.

Given that production typically follows demand, the widespread adoption of these vehicles in the domestic market will strengthen the automotive industry's position in the competition for new investments.

At Tofas, we are committed to becoming a carbon-neutral plant and complying with national and international climate policy requirements. With its sustainability-oriented management approach, our company was included in the BIST Sustainability 25 Index in 2023 and is among the 25 companies with high sustainability performance. We focus on technologies that save energy and reduce the carbon footprint in production processes. While working on new product projects, we continue our research and development activities that are transforming the automotive industry, including mobility, electrification, connected vehicles, software and related technologies.





OUR CARBON FOOTPRINT THROUGH ENERGY SAVINGS AND SUSTAINABLE TECHNOLOGIES.



We use less mains water by Storing every drop of rain That falls on our roofs.



We procure renewable Energy with solar panels on The roofs of our factories.





HD RUBBER & METAL CO.

# Global Manufacturing With Our Skilled Workforce and Advanced Engineering Capabilities

As Toyota Motor Manufacturing Türkiye, we produce globally with our skilled workforce and advanced engineering capabilities. TMMT, a factory known for many firsts, continues to take groundbreaking steps globally with equipment and techniques designed and implemented by its engineers.

#### **ERDOĞAN ŞAHİN**

President and CEO of Toyota Motor Manufacturing Türkiye (TMMT)

As TMMT, we lead innovations in the sector, aiming to be a global player

↑he industry is currently under-going a transformation that occurs once in a century. Celebrating the 30th anniversary of Toyota's production in Türkiye, we have successfully completed all tasks and projects undertaken so far, earning recognition from both Toyota Europe and Toyota Japan. At the present moment, as TMMT, we produce globally with our skilled workforce and advanced engineering capabilities. TMMT, a factory known for many firsts, continues to take groundbreaking steps globally with equipment and techniques designed and implemented by its engineers

In our latest project, the new Toyota C-HR, we were involved in all stages from design to mass production, working harmoniously with all stakeholders and demonstrating our global project management proficiency. With the new Toyota C-HR, the plug-in hybrid model, and the battery production facility, we achieved a first in Toyota Europe and played a key role in the electrification transformation. This global suc-



cess has been achieved through the dedication, hard work, and effective management. Maintaining competitiveness has become even more crucial in times of instability. We

With the new Toyota C-HR, the plug-in hybrid model, and the battery production facility, we achieved a first in Toyota Europe and played a key role in the electrification transformation. This global success has been achieved through the dedication, hard work, and effective management.

continue to improve in areas such as superior quality, high efficiency, and environmental aspects. As of 2023, we achieved the best results among Toyota's European factories in these areas, and we strive to advance further with the same determination and commitment in 2024. As we progress on this path, we exhibit production flexibility by increasing our product variety, producing vehicles that meet customer expectations with superior quality, and delivering them just in time. In the C-SUV segment, we offer our customers various solutions with the new Toyota C-HR, showcasing Toyota's new design philosophy on the Toyota New Global Architecture (TNGA 2) platform with hybrid and plug-in hybrid versions.

#### INDUCTOTHERM GROUP

#### World's Leading Manufacturer of Induction Melting Systems

























#### The Competitive Advantage You Can See

- High-efficiency close-capture fume hood with cast refractory steel dome to minimize heat loss
- Heavy steel shell to provide maximum furnace rigidity and strength for long lining life, low furnace noise and minimal EMF emissions
- Cooling coil sections at the top and bottom of the power coil provide cooling and uniform temperature gradients for extended lining life
- Rigid coil stabilizer system with advanced composite materials to enhance and extend lining and coil life
- Properly selected copper tubing with optimum cross section for maximum performance designed for your application

Superior side lead arrangements to increase safety/saving with their strategic location and arrangement

#### Rigid magnetic shunts (flux concentrators) to support/ extend coil and lining life, improving melt efficiency and reducing stray EMF emissions

Proven "free breathing" coil design using thick-walled, oxygen-free high-conductivity copper tube for maximum power efficiency

**Ground Leak Detector System** provides warning of metal penetration to the coil

REPORT MEDICAL Pre-cast, pre-fires refractory shapes to customize the refractory to your application for ease of maintenance

#### Our Equipment is Used in a Wide Range of Industries & Applications













INDUCTOTHERM INDÚKSÍYON SÍSTEMLERÍ SAN. A.Ş.

Barış Mah. 1803/2 Sk. No:10 Gebze-Kocaeli / TÜRKİYE

Tel: 444 4 713

Fax: +90 262 646 29 62

www.inductotherm.com.tr

inducto@inductotherm.com.tr











Our total export portfolio covers over 150 countries worldwide, primarily in Europe. Recently, we expanded to new regions by adding Australia and New Zealand to our existing export markets.

In addition to our sustainable, environmentally friendly, and innovative production management, we enhance and strengthen our competitiveness by investing in our most valuable asset—our employees—by ensuring their continuous development.

#### Our Total Investment in Türkiye Reached 2.5 Billion Euros

In the last quarter of 2023, we commissioned the new Toyota C-HR, PHEV battery production, and advanced technology eco-friendly new paint facility with an additional investment of 308 million euros. With these investments, our total investment in Türkiye has reached 2.5 billion euros.

While continuing the production of the new C-HR and Corolla, we always remain prepared for new projects within the framework of global Toyota plans. Simultaneously, we support ongoing projects at other Toyota factories in Europe with our project team. These investments and strategic preparations position us strongly and innovatively in the global automotive sector.

#### We Implement Production Strategies and Plans According to Customer Demands

Toyota shapes its global production strategies based on customer demands through the "Multi-Path Way" (MPW) approach. As Toyota, we must meet customer demands in all markets and accordingly implement production strategies and plans. Today, Toyota offers a wide range of solutions to its customers, from conventional internal combustion models to fuel cells, hybrid, plugin hybrid (PHEV), and fully electric vehicles.

Regarding fully electric vehicles, I believe we need more sustainable solutions in battery production tech-



nology, alternative raw materials, and vehicle production technologies.

Developments and investment requirements related to battery range, the sufficient number of charging stations, charging time, and electrical infrastructure are needed.

Therefore, I believe that the most ideal electrification solution in today's conditions is the plug-in hybrid (PHEV) technology. PHEV cars, which can offer an electric range of up to 80 km, can meet daily needs within the city using only the electric motor without using any fossil fuels. These cars also provide uninterrupted and worry-free long-distance travel with their hybrid feature.



We exhibit production flexibility by increasing our product variety, producing vehicles that meet customer expectations with superior quality, and delivering them just in time. In the C-SUV segment, we offer our customers various solutions with the new Toyota C-HR, showcasing Toyota's new design philosophy on the Toyota New Global Architecture (TNGA 2) platform with hybrid and plug-in hybrid versions.

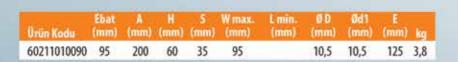
#### THE SUPPLY INDUSTRY HAS PROVEN ITSELF GLOBALLY

Today, the automotive supply industry in Türkiye has reached the status of a global exporter, producing at a quality level that competes in international markets, renewing and strengthening its products and technology through R&D activities. As the main industry, we appreciate these achievements and strive to provide all necessary support and cooperation to ensure their sustainability. We advise our automotive supply industry to adapt to the requirements brought by the electrification transformation process globally and to shape their future plans and product portfolios according to this new situation.

# KÖŞE KAYNAK MENGENESİ

# 90° köşeler için pratik bir çözüm!..







## empa:::electronics

# We are at the heart of every innovation.

We are proud of contributing to the digital revolution innovations in technology supply spanning from automotive to consumer electronics, from industrial electronics to defense industry.

We provide a distinguished product portfolio in electronic components, particularly in semiconductor technologies, along with local supply convenience and financing advantages. Through hands-on trainings, design support and our engineering expertise, we accelerate your business.













IoT & Sensor

Power

E-Mobility

Lighting

Al & Cloud

Aerospace & Defence



www.empa.com







# Turkish Automotive Industry Has a Bright Future

The Turkish automotive industry has a very bright future with both its existing potential and the transformation processes it has undergone. Its strategic location, strong workforce, innovation-oriented approach and sustainability goals enable Türkiye to progress towards becoming a global player in the automotive sector.

#### **HAKAN ÖLEKL**i

KPMG Türkiye Audit Partner Head of Automotive

## Turkish automotive industry invests in electric vehicle production and technologies

The potential and transformation of the Turkish automotive industry has a very positive perspective based on various factors. Türkiye has a great logistical advantage thanks to its geographical location at the intersection of Europe, Asia and the Middle East. This strategic location offers significant potential for both production and export. The country has a large and young population, which contributes to keeping the domestic demand alive in the automotive sector. Türkiye hosts the production facilities of global automotive giants such as Ford, Toyota, Renault and Fiat. This offers a significant advantage in terms of technology transfer, high-level production standards and competitiveness in international markets. Additionally, the quality of engineering and technical education in Türkiye is high, and there is a large workforce specialized in the automotive sector.

The Turkish automotive industry has started to invest in electric vehicle production and technologies in recent years. TOGG (Türkiye's Automobile Enterprise Group) is one of the most important projects in this field and aims to establish Türkiye in the electric vehicle market. This



is an important indicator of transformation and innovation in the sector. The automotive industry attaches great importance to R&D activities and strives to increase its innovation capabilities. This is an important factor that increases the competitiveness of the sector. Turkish automotive companies increase production efficiency and reduce costs with industry 4.0 practices and smart factory concepts. This transformation increases the global competitiveness of the Turkish automotive sector. Automotive companies in Türkiye are increasingly placing more emphasis on sustainability and environmentally friendly production methods. In particular, important steps are being taken in areas such as the use

## GLOBAL COMPETITIVE POWER OF THE TURKISH AUTOMOTIVE INDUSTRY

The automotive industry attaches great importance to R&D activities and strives to increase its innovation capabilities. This is an important factor that increases the competitiveness of the sector. Turkish automotive companies increase production efficiency and reduce costs with industry 4.0 practices and smart factory concepts. This transformation increases the global competitiveness of the Turkish automotive sector.



# IMPORTANT STEPS ARE BEING TAKEN IN ENVIRONMENTALLY FRIENDLY PRODUCTION

Automotive companies in Türkiye are increasingly placing more emphasis on sustainability and environmentally friendly production methods. In particular, important steps are being taken in areas such as the use of renewable energy sources, waste management and reducing their carbon footprint. This creates a positive image in both local and international markets and satisfies consumers' interest in environmentally friendly products.









TOGG, Türkiye's domestic electric car, stands out as an important development in this field. TOGG starting production will strengthen Türkiye's presence in the electric vehicle market and increase the country's competitiveness in this sector.

By adopting global trends, Türkiye has accelerated the digital transformation process and expanded industry 4.0 applications. These developments have increased the global competitiveness of the Turkish automotive industry.

In Türkiye, great importance is given to R&D and innovation activities and significant investments are being made in this field. Collaborations between universities and the private sector support the innovation ecosystem and enable the rapid commercialization of new technologies. These collaborations help Türkiye develop innovative solutions in the automotive sector and gain competitive advantage in global markets.

of renewable energy sources, waste management and reducing their carbon footprint. This creates a positive image in both local and international markets and satisfies consumers' interest in environmentally friendly products. Additionally, Türkiye's growth potential in the automotive sector is supported by international investments and collaborations. Strategic investments, technological innovations and global collaborations increase the competitiveness and growth potential of the sector. The Turkish automotive industry has a very bright future with both its existing potential and the transformation processes it has undergone. Its strategic location, strong workforce. innovation-oriented approach and sustainability goals enable Türkiye to progress towards becoming a global player in the automotive sector. Strategic investments and international collaborations support growth in the sector and make Türkiye an important center automotive industry. in Having a large workforce specialized in the automotive sector increases production quality and efficiency.

One of the most significant strengths of the Turkish automotive industry is, as we mentioned above, Türkiye's strategic location. Being located at the intersection of Europe, Asia and the Middle East, provides a great advantage to Türkiye in terms of logistics. This geographical advantage offers significant superiority in both supply chain management and ex-

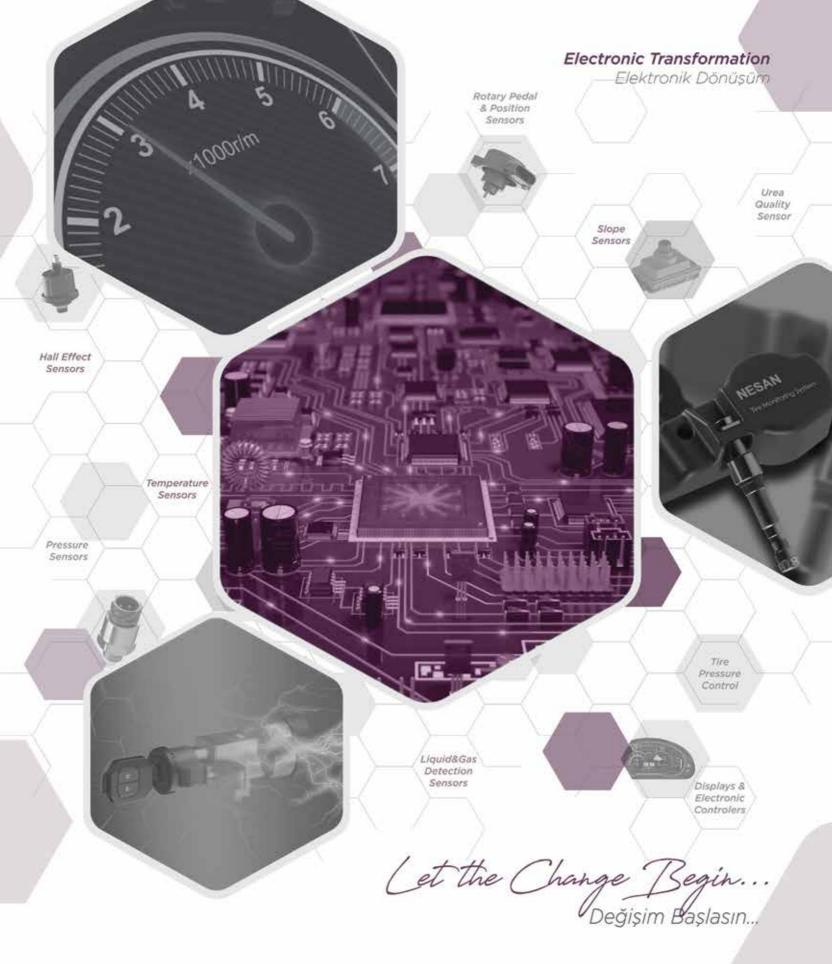
ports. The fact that major automotive companies such as Ford, Toyota, Renault and Fiat have production facilities in Türkiye strengthens the sector in terms of technology transfer and high-level production standards. The presence of these companies in Türkiye not only increases local production capacity, but also provides the competence to produce at international standards. Alongside that, the quality of engineering and technical education in Türkiye is high. Having a large workforce specialized in the automotive sector increases production quality and efficiency. Specifically qualified engineers and technicians who graduated from universities, develop innovative solutions in the sector and increase productivity. The country's large and young population provides demand for the automotive sector, creating a constantly vibrant domestic market. This enables automotive companies to have a strong customer base in the local market and deliver their products to consumers quickly.

Turkish automotive companies attach great importance to R&D activities, increasing their innovation capabilities and elevating their competitiveness in the sector. New technologies and products developed in R&D centers create a competitive advantage in both local and international markets. Research and development, especially on electric and hybrid vehicles, increases Türkiye's potential in this field.

However, among the aspects open to improvement, the necessity of strengthening the electric vehicle infrastructure comes to the fore. Expanding the charging infrastructure is of critical importance for increasing the use of electric vehicles. Increasing the number of available charging stations will enable electric vehicle owners to charge their vehicles more conveniently and quickly. In addition, investments need to be made in the recycling of electric vehicle batteries and sustainable energy use.

Some high-tech components and raw materials used in the automotive sector are still imported, creating the





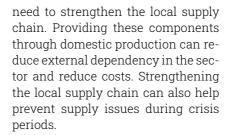


NESAN Otomotiv A.Ş.

İbrahim Turan Caddesi No:170 35470 Menderes / İZMİR 

Strategic investments, technological innovations and global collaborations increase the competitiveness and growth potential of the sector. Türkiye can achieve a stronger position in the global arena by taking strategic steps for the future in the automotive industry and making the best use of its current potential.

Foreign capital inflows and strategic partnerships accelerate technology transfer and enable automotive companies to gain a stronger position in global markets. These collaborations also increase the innovation capacity of the Turkish automotive industry and facilitate its access to new markets.



Further expanding environmentally friendly production techniques and reducing carbon footprints can provide a competitive advantage in global markets. More investment and development of innovative solutions in the field of sustainability are of great importance. Automotive manufacturers should invest in technologies that consume less energy and produce less waste in their production processes. Additionally, vehicle recycling rates should be increased and the use of environmentally friendly materials should be encouraged. The digital transformation process needs to be accelerated and industry 4.0 applications need to be spread over a wider area. Further integration of smart factories and digital manufacturing methods can increase production efficiency. In this process, automotive companies should adopt innovative technologies such as digital twin technology, internet of things (IoT) and artificial intelligence (AI). Digital transformation can improve quality and reduce costs by increasing the traceability and control of production processes. Although Türkiye has taken an important step with the domestic automobile brand TOGG, domestic brands and models need to be diversified and opened up to international markets. This will solidify Türkiye's place in the global automotive market. In addition to projects such as TOGG, developing other domestic brands and introducing these brands to global markets will increase Türkiye's independence and competitiveness in the automotive sector.

The Turkish automotive industry can move forward to become an important player in the global automotive market by further consolidating its strengths and taking strategic steps in areas open to development. In this process, it is of great impor-

tance to focus on critical areas such as innovation, sustainability and digital transformation. Strategic investments, technological innovations and global collaborations increase the competitiveness and growth potential of the sector. Türkiye can achieve a stronger position in the global arena by taking strategic steps for the future in the automotive industry and making the best use of its current potential.

#### Digital transformation and industry 4.0 applications have led to major changes in the global automotive industry

When we consider global and local developments in the automotive industry in the short and medium term, several important trends and changes stand out. In the past, the global automotive industry has focused on internal combustion engine technologies and has made great advances in this field. However, with increasing environmental concerns and sustainability goals coming to the fore, the automotive industry is experiencing a significant transition towards electric vehicles. The success of leading companies, especially Tesla, has led other major players in the sector to increase their investments in electric vehicles

Türkiye has also taken important steps towards electric vehicles by following these global trends. TOGG, Türkiye's domestic electric car, stands out as an important development in this field. TOGG starting production will strengthen Türkiye's presence in the electric vehicle market and increase the country's competitiveness in this sector. Charging infrastructure needs to be expanded for the adoption of electric vehicles. Rapid development of this infrastructure in Türkiye will contribute to the increase in the use of electric vehicles and ensure sustainable growth in the sector.

Digital transformation and industry 4.0 applications have led to major changes in the global automotive industry. Innovative technologies such as smart factories, digital twin technology, the internet of things (IoT),



## **CUTTING-EDGE**

## COATING SOLUTIONS



Electrolytic Coatings: Acidic Zinc, Alkaline Zinc, Zinc - Nickel Zinc - Tin, Zinc - Phosphate, Zinc - Iron Coating

Zinc Flake Coatings: Delta, Geomet, Magni and Atotech Licensed Bulk, Rack and Sprey Coating Applications

Adhesive Coating and Thread Masking: 3M, Precote, Tuflok, Omnimask Applications

Hydrogen Embrittlement Process

**Technical Cleanliness Process** 

**Topcoat Application Process** 

Chemical Licenses





























and artificial intelligence (AI) have increased efficiency and reduced costs in production processes. The integration of these technologies has made production lines more flexible and adaptable, and improved quality control processes. By adopting these global trends, Türkiye has accelerated the digital transformation process and popularized Industry 4.0 applications. These developments have increased the global competitiveness of the Turkish automotive industry.

R&D and innovation investments have been decisive in the automotive industry in the past and will be in the future. Research in areas such as battery technologies, autonomous driving systems and next-generation mobility solutions has supported innovation in the sector. In Türkive, great importance is given to R&D and innovation activities and significant investments are being made in this field. Collaborations between universities and the private sector support the innovation ecosystem and enable the rapid commercialization of new technologies. These collaborations help Türkiye develop innovative solutions in the automotive sector and gain competitive advantage in global markets. Sustainability and environmentally friendly production methods continue to determine the future of the automotive industry. Investments in the use of renewable energy sources and waste management are increasing globally, in line with reducing the carbon footprint targets. Automotive manufacturers are becoming more competitive in global markets by using environmentally friendly materials and increasing recycling rates. Important steps are being taken in the field of sustainability in Türkiye and environmentally friendly production techniques are becoming widespread. These sustainability efforts both reduce environmental impacts and satisfy consumers' environmental awareness sensibilities.

International collaborations and foreign investments will support the growth of the automotive industry in the future, as they did in the past. Foreign capital inflows and strategic partnerships accelerate technology transfer and enable automotive companies to gain a stronger position in global markets. These collaborations also increase the innovation capacity of the Turkish automotive industry and facilitate access to new markets. Türkive's promotion of international collaborations and foreign investments will support the sustainable growth of the sector and increase its global competitiveness.

Another important topic is Türkiye's supply industry. Türkiye has a strong supply industry. We have companies that produce for almost all domestic and foreign brands. These companies need to develop strategies spe-

cifically for electric, hybrid and even hydrogen-powered vehicles. In addition, since Turkish companies are mostly family businesses, they need to make management plans for future generations.

Finally, I would like to share with you the results of our Global Automotive Executive Survey, which KPMG conducted globally at the beginning of this year. Based on the results of our research, sales of electric vehicles are expected to increase globally. In our latest research, the average predictions for electric vehicle penetration have increased. For example, in Western Europe, while the participants predicted last year that battery electric vehicles would account for 24 percent of sales in 2030, this year the consensus estimate was 30 percent. In the United States, the estimate rose from 29 percent to 33 percent, and in China, from 24 percent to 36 percent. Despite the rush of new models from established brands, survey participants still expect Tesla to remain at the top. The opening of the Tesla Gigafactory near Berlin in 2022 is helping Tesla gain more share. Another important result from our research is that customer experience has become a criterion that makes a difference. When looking at customers' purchasing criteria, while performance continues to be the most important purchasing factor, a smooth and effortless customer experience has risen to second place. The importance given to a seamless customer experience extends from purchasing the vehicle to having software that runs smoothly in it. Software-based tools offer an opportunity to supply all types of driver applications. However, if the products are not attractive, consumers are unlikely to purchase these apps. OEM executives, in particular, are less confident in this year's survey than in previous years that they can generate subscription revenue. While concerns about cybersecurity in the automotive industry have also increased, surveyed executives are still confident that auto-manufacturers provide adequate cybersecurity and customer data protection.



#### SMALL THINGS MAKE BIG THINGS HAPPEN





## OYAK HORSE Celebrates Its First Anniversary

OYAK HORSE powertrain plant in Bursa Türkiye, which was part of Oyak Renault until July 2023, was built in 1970 and has manufactured over 7 million engines and 6 million gearboxes for domestic and export markets over the past 54 years.

OYAK HORSE is one of the plants of HORSE Powertrain Solutions focused on developing low emission internal combustion engines (ICEs).

OYAK HORSE encompasses a highpressure aluminium injection facility, engine and gearbox department, and R&D Centre.

OYAK HORSE General Manager Gökhan Deniz reflects on the past year:

The world's mobility needs are so varied that there can be no sole solution for decarbonisation. Instead, each market needs to find its own path that fits its unique circumstances. And for many of those markets, ICE-powered vehicles are going to remain critical technologies for many decades to come.

As HORSE, our motto is "Powering Tomorrow". At the core of HORSE's vision is a steadfast commitment to Environmental, Social, and Governance principles. Our ESG strategy is built on three key pillars: Decarbonisation, Positive Impact, and Responsible Business.

"Powering Tomorrow" for OYAK HORSE means striving for a sustainable future through

a human, society, and environmentoriented approach. It involves enhancing competitiveness, successfully implementing the new projects, creating new business opportunities, and strengthening R&D competencies. By developing innovative

technologies and maintaining a close-knit and growing team, OYAK HORSE aims to carry itself and its stakeholders into the future.

As OYAK HORSE, we successfully completed our first year.

Throughout the year:

- · We established our R&D center,
- Started trial production of our new engine project,
- Passed quality, occupational safety, and environmental audits successfully,
- Completed financial processes and certifications,
- Received the Gold Exporter Award in Türkiye's export rankings.

We are continuing our business development efforts at full speed for new collaborations.

Most importantly, together with all our colleagues and stakeholders, we have succeeded in becoming an exemplary team that works with true team spirit.

I would like to thank all my
colleagues and stakeholders
who contributed to the
establishment of OYAK
HORSE and marked its
first year.

Wishing us many more beautiful years together with health, happiness, and success.

OYAK HORSE General Manager Gökhan Deniz



## OYAK HORSE MAKINE EKIPMANLARI

www.horse.cars

80 NEWS FROM TAYSAD SEPTEMBER-OCTOBER 2024 · ISSUE 140

#### 14th Aftermarket Conference Held

# A Growing Need for a Highly Skilled Workforce in the Age of Electrification

The automotive industry's largest aftermarket event, the Aftermarket Conference, was held for the 14th time this year. The event, attended by leading figures in the sector, focused on "Competition and Digitalization - The Road to 2030."

o-organized by TAYSAD, the Automotive Industry Exporters' Association (OIB), and the Automotive Aftermarket Association (OSS), the industry's only Aftermarket Conference was held in Istanbul for the 14th time this year. This significant global gathering provided a platform to discuss critical insights and predictions for the industry. The conference theme, "Competition and Digitalization – The Road to 2030," brought together manufacturers,



#### TAYSAD Vice Chairperson Berke Ercan: Facing Numerous Disruptive Changes

Electrification is now a part of our lives, beyond knocking on the door. Therefore, its impacts are and will be significantly experienced in the aftermarket as well. Just as electric vehicles have brought substantial transformations, their less visible aspects are causing significant changes in the aftermarket sector, including service centers and parts dealers.



suppliers, distributors, independent service providers, and global stakeholders to share key strategies for preparing for the electric vehicle era.

TAYSAD Vice President Berke Ercan opened the event, stating, "The automotive industry is undergoing its second major transformation and revolution since Ford's Model T. We are facing numerous disruptive changes and trying to cope with them. Electrification is now a part of our lives, beyond knocking on the door. Therefore, its impacts are and will be significantly experienced in the aftermarket as well. Just as electric vehicles have brought substantial transformations, their less visible aspects are causing significant changes in the aftermarket sector, including service centers and parts dealers. The need for a highly skilled workforce is frequently mentioned."

**OSS President Ali Özçete** highlighted that the automotive sector has become a source of national pride.



He noted, "The transition to autonomous and electric vehicles presents a particular risk with the reduction in the number of spare parts. This is a particular concern for manufacturers. Companies that produce for the primary industry need to pay close attention and consider expanding into the aftermarket sector. We think that this shift could be the most important factor that could lead to a shrinkage in production capacity in our country."

## PROSERVICE CRS Germany GmbH

established in Germany to provide services in the fields of Quality control, selection and sorting, rework,

CSL I, CSL II, CSL III, engineering and production support in the automotive, white goods and other industries!

With our quality service and

advantageous price policies, we offer our

customers reliable, solution-oriented,



fastest and most efficient service 24 hours a day,

**Engineering** 

Manufacturing Support

Richard-Byrd Street, Number: 18/1.30, 50829, Cologne/Germany Gsm: +49 (0) 172 8072557 • Phone: +49 (0) 221 56037873

www.proservice-global.de

office@proservice-global.de

Akdeniz Neighborhood, Vali Kazim Dirik Street,

Number: 32/61, 35210, Izmir/Turkey

Gsm: +90 (0) 555 102 77 92 • Phone: +90 (0) 232 425 10 07 info@proservice-global.com www.proservice-global.com



in

We are 100%
ready to serve
our customers
who ship from
Turkey to
border countries
such as Germany,
Belgium and the
Netherlands!



82 NEWS FROM TAYSAD SEPTEMBER-OCTOBER 2024 · ISSUE 140



#### **Threats from Far Eastern Brands**

Ali Özçete also pointed out, "As we all know, over 1.2 million vehicles were sold last year. This year, 295 thousand vehicles were sold in the first quarter, marking a record for the first quarter. Notably, many of the top-selling vehicle brands in the past three months have been from the Far East. This poses a serious threat to the future for us as vehicles circulating in traffic. How can we compete with products from the Far East using Turkish quality standard products? This remains a question, but we firmly believe that our strong producers and distributors will overcome these challenges." Emphasizing that the decrease in the number of spare parts with the transition to autonomous and electric vehicles is a separate element of danger, Ali Özçete stated, "This is a particular concern for manufacturers. Companies that produce for the primary industry need to pay close attention and consider expanding into the aftermarket sector. We think that this shift could be the most important factor that could lead to a shrinkage in production capacity in our country."

### Baran Çelik: "Capacity and Capability Beyond Expectations"

Speaking at the opening of the conference, OIB President Baran Çelik said, "As Türkiye's automotive industry, we account for 15% of the country's exports. For 17 of the last 18 years, we have been Türkiye's export leader. We are the 13th largest vehicle

producer globally and the 4th largest in Europe, with a trade surplus for 8 of the last 10 years. We have not had a year in the last 4 years that has not been challenging. We are facing a crisis that is particularly specific to our country today: the crisis of inflation and its many side effects. We are going through a period when access to financing is difficult due to interest rate hikes by Central Banks.



#### Global Aftermarket Trends Discussed

During the morning session of the 14th Aftermarket Conference. Philip Atkins, MEMA Industry and Research Leader, presented "Aftermarket Trends in America." In addition, Frank Schlehuber, CLEPA Senior Market Advisor, discussed "Regulations in Europe & Europe's View on Türkiye," and Mathieu Bernard, Aftermarket Director at Roland Berger, provided insights on "Threats from the Asian Market to Europe." The afternoon session began with Edip Erdur, General Manager of Nexus Türkiye, presenting on "The Growing Role of International Trade Groups," Teoman Silek, General Manager of Borusan Parcapazari. com, discussed "E-Commerce in Aftermarket." and Mehmet Karakoç, CEO of Bakırcı Group, evaluated "New Approaches for Service Stations."

As the automotive industry, we exceeded our export target of 34 billion dollars last year and reached a record export of 35 billion dollars. As a market, we reached an all-time high of 1.2 million. The fact that our sector has reached all-time highs sometimes challenges us in our requests for public incentives. When we mention problems, we are told, 'You are breaking records, so where is the problem?' However, our problems diminish the degree of the records. The potential of the Turkish automotive sector is much higher. Our capacity and capabilities are beyond expectations, but with our projections for this year, we have set the target at 39 billion dollars. In the first 4 months, we realized an export volume of 12 billion dollars, which is expected to be slightly below 39 billion dollars. Nevertheless, it shows that we will close this year as the leading sector in Türkiye's exports. As you have been witnessing, the transformation of the automotive industry continues at a rapid pace despite many adversities.

The technological transformation in the industry will transform the after-sales market very rapidly, perhaps even more so than the entire industry. We have to be ready for this transformation as a whole."

















84 A D V E R T O R I A L SEPTEMBER-OCTOBER 2024 · ISSUE 140



## Innovative Robotic Automation Solutions Shape the Era of Industry 4.0

NRM, a technology and engineering company which operates under Norm Holding, develops robotic automation systems for all companies in the manufacturing sector.

ollowing the industrial revolution, the manufacturing sector is undergoing a major transformation known as Industry 4.0. This era is defined by innovations like digitalized production processes, IoT, data analytics, big data, AI, and robotics. These technologies make production faster, more efficient, and less error-prone, enhancing human-machine interaction. Factories that effectively use these technologies are termed 'smart factories,' setting a new industry standard. In developing countries, labor-intensive production processes are greatly affected by this transformation. NRM prioritizes digitization and technology, aiming to share their innovations with the industry and customers. This approach transforms their business model and helps reshape how challenges are addressed and overcome.

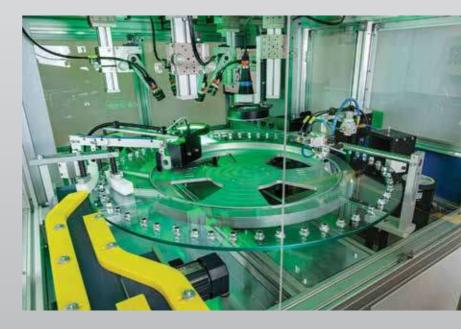
## Turnkey projects incorporating custom robotic solutions are featured

In parallel with the growth in the machinery sector, there has been an increasing demand for automation control systems. NRM produces **Robotic & Manufacturing Automation**Systems for domestic and international cli-

ents operating in the manufacturing sector. Within this scope, turnkey projects envolving custom-designed systems and machinery, utilizing six-axis, scara, delta, and cartesian robots, robotic quality control, welding applications, and specialized robotic solutions such as Pick&Place are offered.

## Providing services to various sectors such as fasteners and packaging

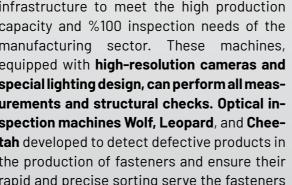
With the active utilization of optical quality control equipment, we have developed op-



SEPTEMBER-OCTOBER 2024 - ISSUE 140 ADVERTORIAL 85



tical machines with NRM Vision Software infrastructure to meet the high production capacity and %100 inspection needs of the manufacturing sector. These machines, equipped with high-resolution cameras and special lighting design, can perform all measurements and structural checks. Optical inspection machines Wolf, Leopard, and Cheetah developed to detect defective products in the production of fasteners and ensure their rapid and precise sorting serve the fasteners





industry. Besides fasteners industry NRM provides services to various sectors such as the automotive main and sub industry, white appliances, metal forging, glass, welded manufacturing, food, pharmaceutical, cosmetics and packaging by designing turnkey projects in accordance with customer requirements.

NRM designed Glass Product Handle Positioner Machine for Europe's second-largest producer in the glass household goods sector which enables the positioning of products with handles to be quality controlled in cold end lines without entering the sorting machine. One of the projects contributing to the industry is crack control system project for wheel production company in Germany.

Thanks to NRM's engineering know-how and experienced team they have the capacity to adapt and develop numerous projects according to the needs and demands of various sectors. With NRM's profound expertise in the manufacturing sector and its innovative approach, company aims to offer customized solutions to meet customers' needs, thereby maximizing efficiency and quality in production processes.

86 NEWS FROM TAYSAD SEPTEMBER-OCTOBER 2024 · ISSUE 140







#### **3rd Supply Chain Conference Held**

# The Path to Capturing Future Trends in Automotive Lies with Startups

TAYSAD, the sole representative of the Turkish automotive supply industry, discussed the industry's issues at the 3<sup>rd</sup> Supply Chain Conference held this year. The event, themed around transformation, saw numerous industry professionals sharing their experiences and insights.

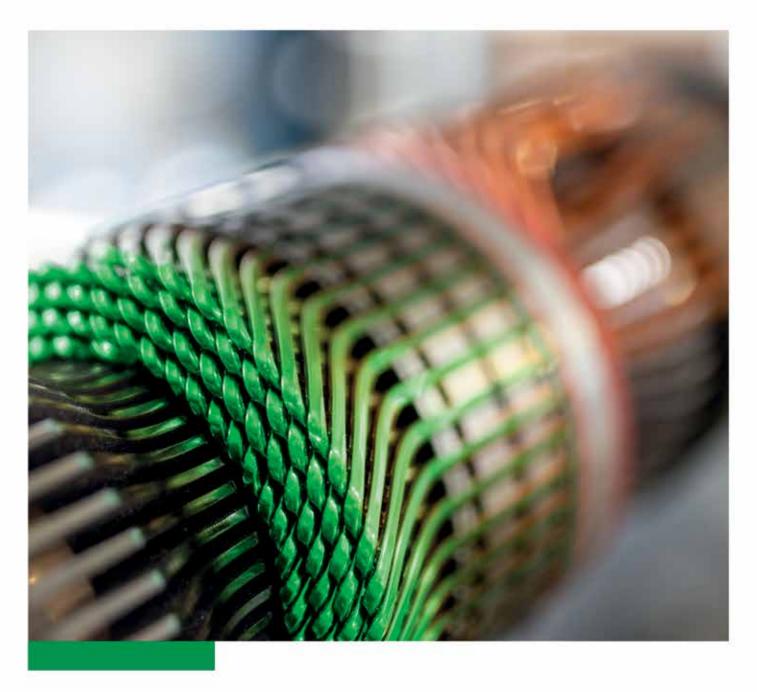
AYSAD continues to set examples in the sector by addressing new practices and regulations alongside changes within the industry. In this respect, TAYSAD, the sole representative of the Turkish automotive supply industry, brought together the leading names of the industry with supply industrialists at the 3rd Supply Chain Conference.

**Togg CEO Gürcan Karakaş** delivered a presentation titled "User Expectations and Technology Transforming Suppliers Along with the Industry." He stated, "The crucial point here is whether the intellectual property is in our country and whether we have the originality. That's what makes us independent and special. If you have the intellectual property, then you can move very quickly. You can develop products swiftly. With the evolution of user expectations and connected technologies, the automotive sector is heading in a different direction. We selected a significant portion of our suppliers from companies that are TAYSAD members, have



#### Flexibility and Resilience in the Supply Industry Have Never Been More Important

TAYSAD Board Member Fatih Uysal stated that the conference provided great opportunities to discuss how supply chains have changed, evolved, and prepared for future challenges. "The rapid progress in technology has led to a fundamental change in the sector, from business practices to supply chain processes. Innovations such as Industry 4.0, artificial intelligence, big data analytics, and IoT offer us possibilities in the supply chain that we could not have imagined before. These innovations make the supply chain faster, more flexible, and more sustainable. However, this transformation is not limited to technological innovations alone. Unexpected events such as global trade wars and the pandemic have shown us how fragile supply chains can be. Therefore, the concepts of flexibility and resilience have never been more important."



We pioneer motion

## Nothing is more impressive than a clever idea that no one expected.

Making complete electric motors ourselves may have been a surprise decision, but it was a logical one, too. We have comprehensive experience of mechanical components, production processes, and winding technology, as well as an understanding of how vehicles work as a whole. This enabled us to create a range of exceptionally efficient engines, something that surprised many people.



88 NEWS FROM TAYSAD SEPTEMBER-OCTOBER 2024 · ISSUE 140





worked with TAYSAD, and developed technology in this country. We need to be knowledgeable about artificial intelligence, cybersecurity, and all its derivatives. It's also essential to understand every aspect of energy solutions. Where are these skills, technologies, and business models outside the automotive sector? Mostly in startups. When we look at these startups, they are small companies with 15-20 people, some even smaller, but their ideas are excellent. Bringing them together is quite important. We reviewed over 1,000 startups and evaluated the ideas of 33. We have started to gradually build the ecosystem with them."

#### **Best Practices Examined**

In the first part of the conference,



Digitopia CEO and TRAI Founder Halil Aksu shared his views with a presentation titled "Are You Ready for Digital Success in the Age of Artificial Intelligence?" Norm Digital's Software and Artificial Intelligence Director Prof. Dr. Deniz Kılınç also shared his insights with a presentation titled "The Roadmap for Businesses in the Digital Transformation Process." The afternoon session began with PwC Senior Director Luc Van Ostaeyen's presentation on "Cost Optimization in Logistics." This was followed by the Best Practices section, where Standard Profil Group Indirect Procurement Director Irfan Can Karakurt and Nuvolog CEO Abdullah Cansu discussed "End-to-End Logistics." Another Best Practices presentation was delivered by Maysan Mando Purchasing Supervisor Ahmet Demir and Maysan Mando Purchasing Specialist Erdi Mihalıçlı on "Digitalization of Price Escalation Agreements." The closing speech of the conference was given by TAYSAD Board Member Tülay Hacıoğlu Şengül.

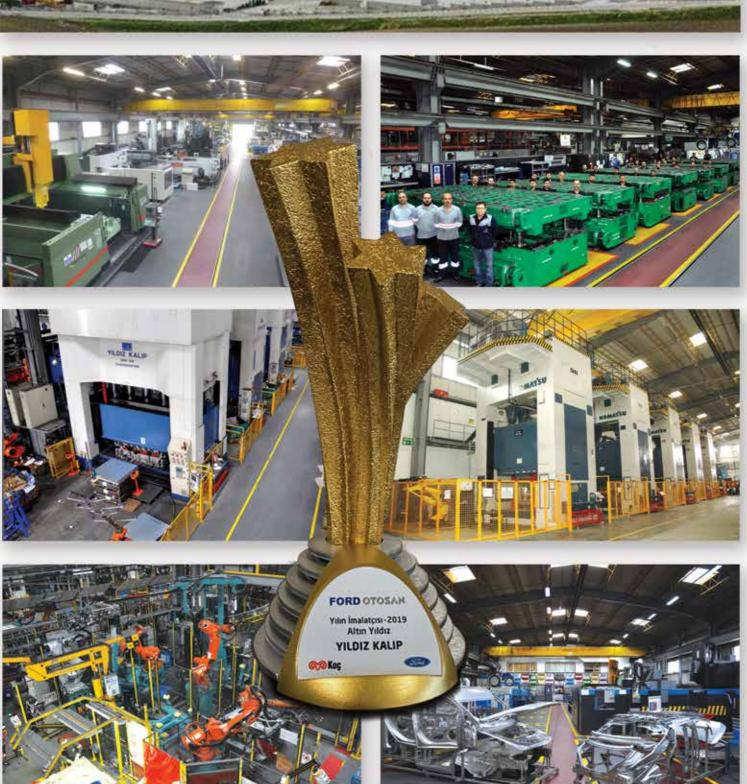
The conference's platinum sponsorship was provided by Proservice, silver sponsorship by Nuvolog, bronze sponsorships by CEVA, Climease, Seeburger, and Xometry, and stand sponsorship by IFS.













## Yıldız Kalıp A.Ş.

www.yildizkalip.com yildizkalip@yildizkalip.com

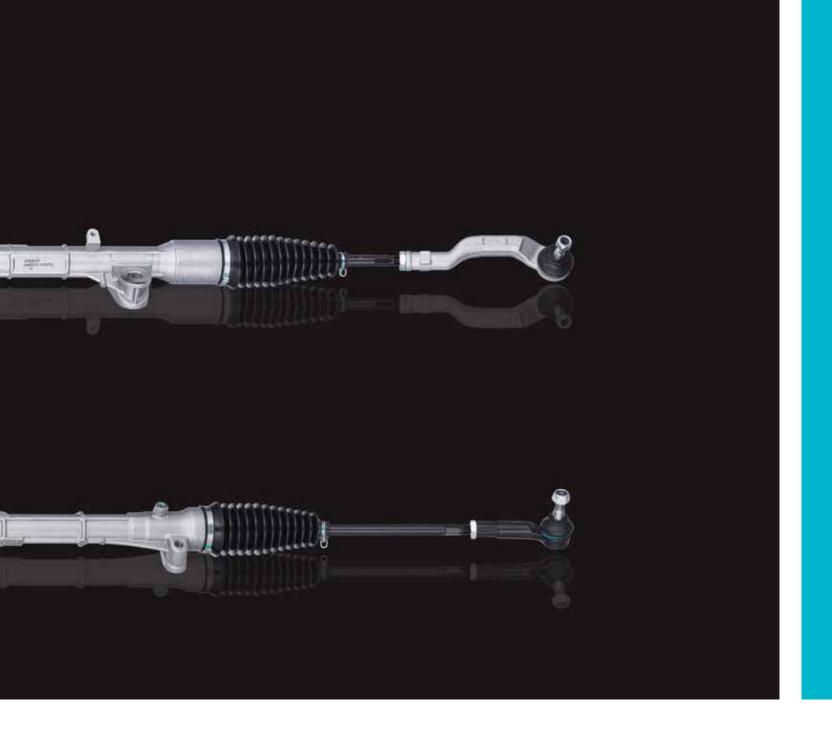






With 319 Models in 23 Different Marks

IATF 16469:2016 | ISO 9001:2015 | ISO 45001: 2018 | ISO 14001:2015





#### SİSMAK OTOMOTİV SAN. VE TİC. A.Ş.

Address İzmir Atatürk Organize Sanayi Bölgesi 10007 Sokak No:13 Çiğli 35620- İZMİR-TURKIYE Tel +90 (232) 328 02 55 · e-mail info@sismak.com Web www.sismak.com





#### **ARMA BAĞLANTI SİSTEMLERİ**



ARMA BAĞLANTI SİSTEMLERİ, initially established as a molding workshop in 1980, is an innovative and dynamic company serving its customers in various sectors such as automotive, home appliance, machinery, agriculture, marine, heating, ventilation, air conditioning and construction with continuous focus on producing the strongest and most reliable fixing systems.

Headquartered in Istanbul, Türkiye with  $8.000~\text{m}^2$  covered area, we serve various markets globally.

We are the right partners in the field of fastening and fixing technology for integrated solutions from development to production.

We participate in various global fairs and we would be delighted and honored to meet you there.

We have IATF 16949, ISO 9001, ISO 14001 and ISO 45001 certificates which completes our strong infrastructure.

Our main principle is to provide unmatched quality and timely delivery with optimum price for %100 customer satisfaction. Our workmanship is visible and flawless.













#### Our products include,

- DIN 3016-1 retaining clamps,
- DIN 3017-2 hose and pipe clamps,
- Pre-positioned locking type clamps,
- Rubber lined clamps,
- Ear clamps,
- Worm drive clamps,
- V band and heavy duty clamps,
- Special metal spring clips,
- Screw clips,
- Cage nuts,
- Metal fasteners and metal stampings,
- Plastic fasteners and other plastic products.

Ömerli Mahallesi Adnan Kahveci Caddesi No: 34/1 34555 Arnavutköy - Istanbul - TÜRKİYE www.armafixing.com Phone: + 90 (212) 549 57 31 E-mail: expo@armafixing.com

## **Extrusion Processing 4.0**

"Always innovation by NOVOMA..."





Otomotiv sektörü Hortum – Profil – Trim - Fitil üretimlerine yönelik;

- + Kauçuk Hortum Hatları (Örgülü Örgüsüz)
- + Kauçuk Conta ve Profil Hatları
- + TPE- TPV Ekstrüzyon Hat ve Üniteleri
- + PA Ekstrüzyon Hat ve Üniteleri
- + Diğer Termoplastik Hat ve Üniteleri





Detaylı bilgi için; 212 879 09 30, novoma.com.tr















## **ÇEMTAŞ** Çelik Makina ..... San. ve Tic. A.Ş.

 $\pmb{\zeta \text{EMTA\$}} \text{ is a joint stock company organised to operate on a land of 101.000 m2 in} \\$ the Bursa Organised Industrial Zone by the merge of industrialists, businessmen, small craftsmen and public entrepreneurs of Bursa city on 27.01.1970. As an "Electric Arc Furnace based Special Steel Producer" CEMTAS is leading market by producing special steel as customer-driven, compliant with the norms EN, DIN, AISI, SAE, ASTM and special specifications with 200.000 tons/year melt shop and rolling mill capacity. Today, **ÇEMTAŞ** is producing more than 200 different steel grades in over 1.500 different sections as round bars and spring steel flat bars. **ÇEMTAŞ** can easily meet the changing requirements of domestic and foreign markets with its high technology and qualified manpower

In our steel plant, production starts with our 30 tonnes Eccentric Bottom Tapping Type Electric Arc Furnace. The production process in steel mill continues with the 30 ton liquid steel capacity ladle furnace. The final stage of the steel mill is the continuous casting machine, where the alloyed, refined liquid steel is cast

In the rolling mill which is the second phase of our production, the rolling starts with the automatic atmosphere controlled 50 Tonnes per hour Walking Hearth Furnace. After rolling, the bars are entering the cooling bed which is partly closed designed and has piling opportunities to achieve controlled cooling. The produced bars are cut by cold shear or abrasive cutting machine in to the

Spring steel bars and steel flat bars are ready for shipment after visual inspection without any additional treatment, expect softening if required.

Round bars between Ø15 mm and Ø95 mm are additionally treated at the conditioning lines.

At the non-destructive testing units, the round bars are first shot blasted to achieve a clean surface. The cleaned round bars are than straightened by 2 rolls straightener. After shot blasting and straightening the round bars betw to Ø95 mm are ready to be taken to the non-destructive control unit.

The surface crack control machine is Dr. Foerster made and is called Circoflux. The inner defect device is GE Inspection Technologies made and is called ultrasonic test device. All bars after surface crack and inner defect tests are passing through a mobile spectrometer test. With this test the chemical analyses are 100% confirmed.

These applied non-destructive tests approve the safe usage of **ÇEMTAŞ** material by worldwide automotive part producers.

In heat treatment facility, quenching + tempering and normalization operations can be applied to bars up to 8 meters length with composed of a quenching system and a tempering furnace. Atmosphere controlled batch type furnace is able to operate soft annealing, cold shearing, stress relieving and spheroidizing to bars up to 12 meters length.

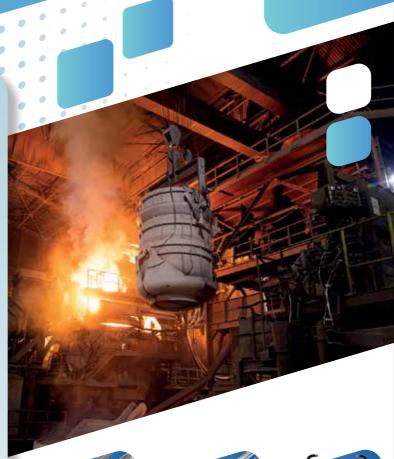
Surface defect free round bars called "bright steel" according to EN 10278 standart, h9 and h11 tolerances, between Ø13 mm to Ø80 mm can be produced in two peeling lines branded Schumag and Landgraf. According to customer reguest, peeled round bars are passed through Eddg Current surface defect test before cutting to length.

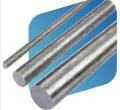
ÇEMTAŞ R&D Center projects end up with new steel grades on using Simulation Programs, Vacuum Induction Melting System, Sample Hot Rolling System, Metalographic and Mechanical Characterization Equipments.

Our laboratories is equipped, according to international standards and customer specifications to apply necessary tests and analyses with the latest technology.

In addition to supplying special steel products to automotive parts and components manufacturers, since 2011  ${\it CEMTAS}$  produce stabilizer bars to automotive and railways sectors in local and foreign market made from between Ø13 mm to Ø80 mm peeled bars with production lines which has 6.700 m2 closed site and a capacity of 300.000 pieces/year.

ÇEMTAŞ quality system was firstly certified by Institute of Turkish Standards in 1994 (TS-EN-ISO 9002). Today, CEMTAS has; IATF 16949, TS EN ISO 14001, TS EN ISO 45001, ISO 9001, TS EN ISO 50001, ISO/IEC 27001 quality system certificates.

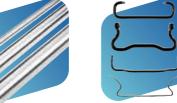




Ø15-95 mm

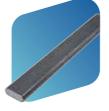
(EN 10060)

**Round Bars** 

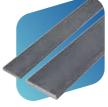


Peeled Round Bars Ø13-80 mm (EN 10278)

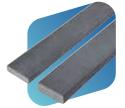
Stabilizer Bars



Spring Steel Flat Bars (EN 10092-1) Profile A



Spring Steel Flat Bars (EN 10092-1) Profile B



Spring Steel Flat (EN 10092-1) Profile B



www.cemtas.com.tr

Organize Sanayi Bölgesi A.O.S. Bulvarı No: 3 16140 Nilüfer / Bursa / Türkiye • Tel: +90(224) 243 12 30 • Faks: +90 (224) 243 13 18





### Worldwide Quality Choice of Over 100 Countries

For over 60 years, EKU has been manufacturing brake drums, brake discs and brake pads for Commercial Vehicles. Its product range also includes various casting parts for Agricultural Equipment and Railway Industries.

As of today EKU, with its state-of-the-art production facility in the field of systems for commercial vehicles, is represented in over100 countries around the globe. Complying new product design and development with R&D support and respecting all environment requirements enable EKU to be the leading brand in domestic and global market.





#### EKU FREN ve DÖKÜM SANAYİ A.Ş.

TAYSAD Organize Sanayi Bölgesi 1. Cadde No:13 41420 Çayırova - Kocaeli - Türkiye P: +90 262 658 10 10 | F: +90 262 658 10 00 | eku@eku.com.tr | www.eku.com.tr









ILERI Group is a trusted OEM partner in Engineered Control Technology solutions, with more than 40 years of manufacturing and product development experience. Located in the US and Turkey, ILERI is a Tier 1 supplier to the mainstream OEMs across the globe.

The Group manufactures a very comprehensive range of innovative Mechanical Control products in the Steering, Access Control, Motion Control, and Welded Fabrication categories and occupies a leading position as a solution provider. Thanks to its dedication to quality and its technological leadership, ILERI has won the confidence of over 70 major OEMs across Europe, the Americas and Asia-Pacific.













#### STEERING SOLUTIONS

We offer innovative steering solutions to exact customer specifications.



#### MOTION CONTROLS

From sophisticated Armrest controls to purely mechanical handbrake for heavy duty applications.



#### ACCESS CONTROLS

A wide range, and infinite solutions. This is what ILERI has to offer you.



#### STRUCTURAL SYSTEMS

Our production capabilities offer you welded structures to your exact requirements.



Our Story

Founded in 1969 under the name Maysan, Maysan Mando is Turkey's first and largest shock absorber manufacturer.

Maysan Mando continues its activities with a partnership of 60% HL Mando and 40% Cukurova

In Maysan Mando's product range; There is a wide range of shock absorbers for passenger and light commercial vehicles, buses and trucks, as well as tractors, seats and military applications.

South Korean HL Mando has a large and widespread structure around the world, and the company has approximately 12 thousand employees, 23 production locations, 20 R&D Centers, 8 sales offices and 7 vehicle testing sites in different locations around the world.

Cukurova Holding, which also manufactures construction machinery, loaders, excavators, forklifts, generators and paper, has been serving in the industrial sector, which is its main field of activity, as well as in the banking sector since its establishment.

The closed area of Maysan Mando's factory, which is settled in Bursa Demirtas Organized Industrial Zone in 2019, is 27,000 m2, and the annual production capacity increased from 5 million units to 8 million units in last 3 years. Approximately 610 employees, including white collars, are employed in the factory building equipped with the latest technology.

Maysan Mando, which produces both directly for OEM customers and aftermarket for its domestic and international dealer network, works with almost all of the world's largest main industrial manufacturers.

Maysan Mando supplies its products to many global OEM manufacturers and local companies such as Renault, Dacia, Stellantis, Fiat-Tofas, Ford, Hyundai, Kia, GM, Daimler, Mercedes, Iveco, Anadolu Isuzu, BMC, FNSS, Karsan, Otokar, Temsa, Saf Holland, Schmitz Cargobull and BPW.

Providing 68 percent of its total production to domestic and international OEM manufacturers, Maysan Mando meets the domestic aftermarket demand with its strong position in the market with the remaining 32 percent, while also meeting the demand of the domestic aftermarket, especially in European countries; It exports its products to approximately 50 countries including the Middle East, North Africa, North America and the Turkic Republics.



















Our company, which has been producing OEM parts as a Tier-1 and Tier-2 supplier to the automotive industry within KAZANI Group since 2008, operates in the field of plastic injection.

#### We produce and serve in 4 different locations.

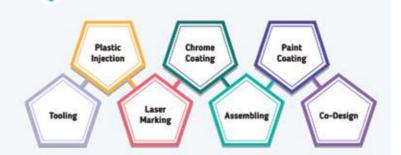
- Gebze: Plastic Injection Molding Workshop, 1500 m<sup>2</sup>, 85 people, 3 shifts and 6 days.
- Gebze: Raw material and semi-finished product warehouse, 400 m<sup>2</sup>, 6 people, 3 shifts and 6 days.
- 3.Sakarya: Plastic Injection Molding Workshop, 4.000 m<sup>2</sup>, 45 people, 3 shifts and 6 days. (after half of 2024)
- Tuzia: Plastic Injection Mold Production Workshop, 500 m², 25 people, 3 shifts and 6 days.

There are 25 engineers and technicians in our company who manage sales, project management, production and quality processes.

According to IATF 16949 and ISO 9001 quality systems, we make all our processes ERP system supported and have a very high level of quality understanding.

Basically, we produce interior trim parts, exterior trim parts, diffusing lenses and light guides, chrome-plated products, 2C parts and safety parts.

In our factory, the production of light guides is carried out in separate and fully automated systems. As we have years of experience with all technical plastics, there is almost no project that we cannot handle. Starting with the quotation, through the analysis of the part design, to the transfer of the mould to the series, we create a complete project plan and manage it with a **PMP-approved system**.





Hyundai i10
Interior trim



Ford Truck FMAX Interior trim



Toyota C-HR
Interior lighting





## RoboCAM + Easy to learn! A totally user friendly flexible software which offers easy handle many complicated works on.

Established in 2009, Tezmaksan Robot Technologies stands as a prominent European robot automation solution provider, contributing to the landscape of advanced manufacturing solutions. It was founded by Tezmaksan Makine, a Turkish company with a rich legacy dating back to 1981.

We have introduced new robotic models and expanded globally with dealerships in 42 countries. Our **CubeBOX robotic automation systems** are currently operational in Germany, the United States, Austria, Belgium, Bulgaria, the Czech Republic, France, Italy, UK and the Netherlands, to name a few.

The CubeBOX systems seamlessly integrate with control units and robots, regardless of manufacturer or communication protocol, facilitating automated loading and unloading of CNC machines. Notably, the system's lean and flexible design includes a workpiece stocking area and a robotic arm. Without any brand restriction; compatible to all NEW and USED CNC machine brands and to all Control Panel brands.

For more information on the CubeBOX product line, visit the Tezmaksan Robotics website.

www.tezmaksanrobotics.com



# Cube BOX is All Over The World







Yenmak was established in Konya in 1965 by the Kahvecioğlu family as a modest workshop. Since its inception, Yenmak has continually revitalized and expanded its operations, evolving into a prominent global supplier of engine parts based in Turkey.

Today, Yenmak manufactures a comprehensive range of engine components, including KIT, PISTON, PISTON PIN, SEGMAN, and CYLINDER LINER. Additionally, it exports GASKETS, VALVES, ENGINE BEARINGS, and LUBRICANTS to over 100 countries across five continents. Yenmak holds prestigious certifications such as INMETRO, ISO 9001, IATF 16949, and ISO 14001, underscoring its commitment to quality and environmental standards.

With production facilities spanning a total area of 50,000 square meters across two factories and one Headquarters & Logistics building, Yenmak maintains a robust infrastructure to support its global operations.

Sales and marketing activities are carried out in YENMAK export office in Istanbul.







Developments in the automotive industry and the future predictions are shared via bimonthly TAYSAD Magazine which is also digitally available at

www.taysadmag.com



## **Cobot Arc Welding Package**

Fitted on ABB's award-winning GoFa™ Cobot, the Cobot Arc Welding Package is the first of its kind to enable users to program a robot without using a teach pendant. With the Easy Teach Device, users can automatically generate the programming code by simply guiding the robot's arm along the welding path.

**Weld Easy:** No code programming enables first-time robot users to weld without needing specific robotic skills

**Weld Faster:** Create welding sequences in less than 30 seconds, saving up to 70 percent of programming time with the auto-generated programming feature of the Easy Teach Device

**Weld with Quality:** GoFa's unmatched position accuracy and industrial-grade welding software ensure high-quality output, every time

**Upskill your Workforce:** Empower manual welders to easily automate simple weld jobs and focus on more value-added work

**Simplify operations:** All major operations are achieved with the easy-to-use device on the robot arm, making it simple and intuitive to use

**Easy to buy:** ABB is a single source for all major components incl. package, robot, gripper, and software, making it easy for anyone to buy and set up the device

For detailed and more information, please contact with us.



