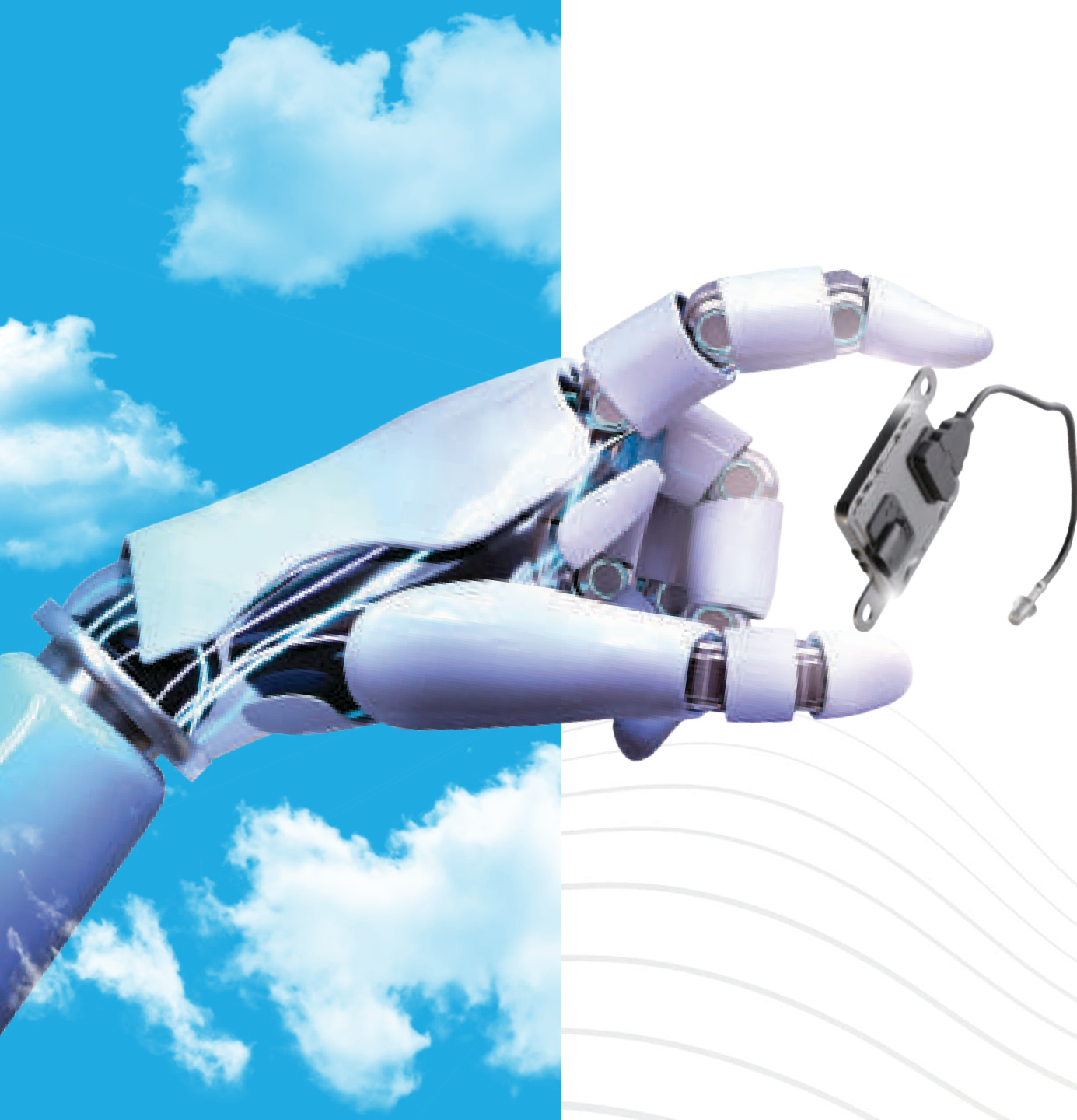




MCT
Technic

NOx
SENSORS



MCT Technic was founded in Turkey in 2020 by **Hacı YILMAZ**.

The company manufactures exhaust emission and engine sensors, with a primary focus on NOx sensors, serving the automotive and heavy-duty vehicle sectors, as well as industrial and marine industries.

Its headquarters and production facility are located in Istanbul, Turkey. Since its establishment, MCT Technic has expanded into European and global markets, quickly becoming a leading player in its sector.



Vision & Mission

Our Vision: To be a leading and innovative brand in NOx sensors and related emission control products worldwide.

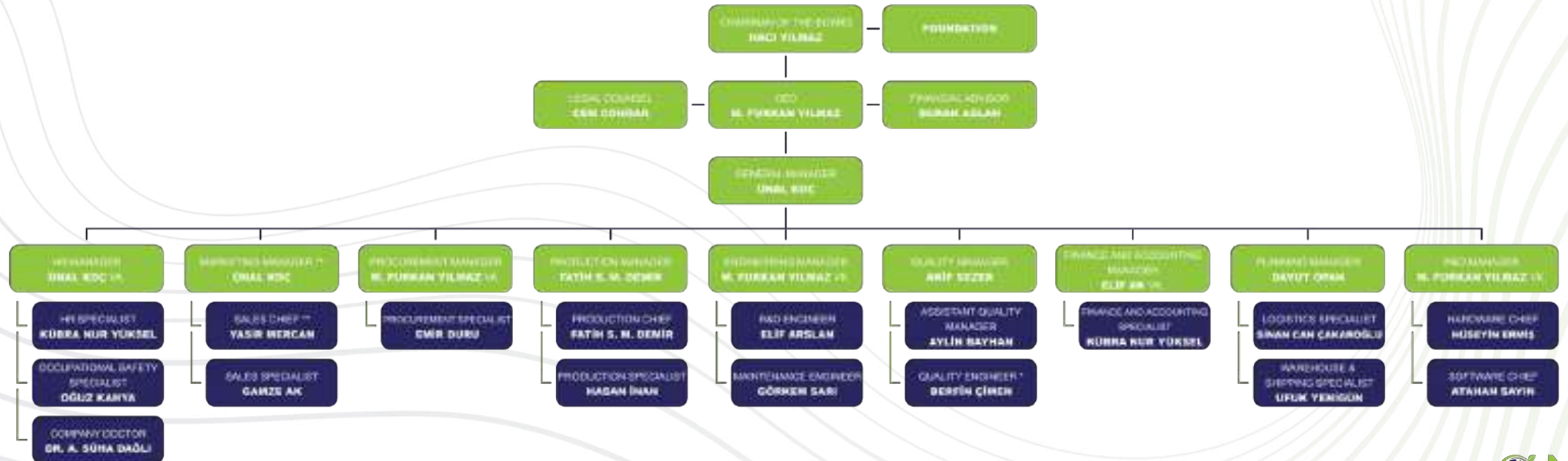
Our Mission: To contribute to a sustainable future by providing emission control solutions with environmentally friendly, reliable, and high-tech products for sectors such as automotive, industrial, marine, and flue systems.

Our Values: Reliability, environmental responsibility, customer focus, innovation.

Organizational Structure

Management Team: Led by CEO and founder **Hacı YILMAZ**, the organization comprises the production, procurement, engineering, quality, R&D, sales, and marketing departments.

Human Resources: With a team of engineers, technicians, and operations staff, the company employs over 50 people in total.

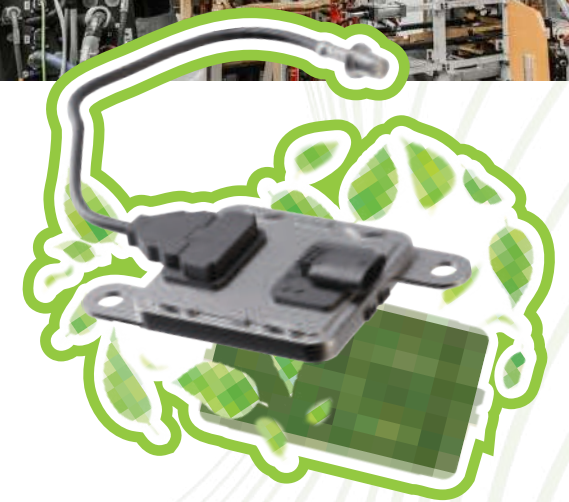


Production & Technology Infrastructure

- The production facility in Istanbul, covering 5,000 m² of indoor space, has an annual production capacity of over 500,000 NOx sensors.
- The production process utilizes fully automated lines, robotic soldering, laser marking, and state-of-the-art testing equipment.
- Approximately 80% of production is achieved with domestic added value. Digitalization and automation processes enhance production efficiency.

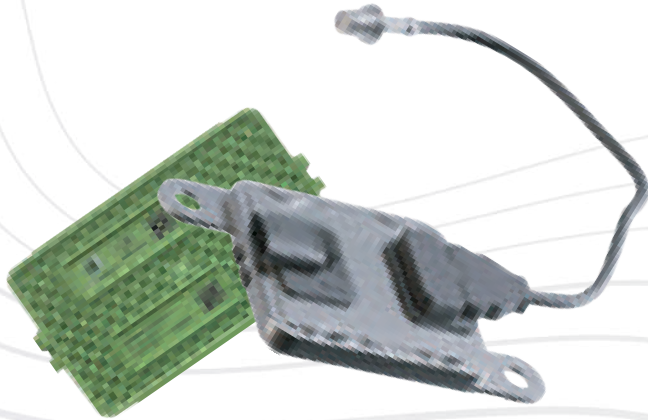
Operating Principle of NOx Sensors

- **Detection & Measurement:** Precisely measures the NOx levels in exhaust gases and transmits the data to the emission control unit.
- **Data Analysis:** The engine control unit (ECU) uses the sensor data to optimize the combustion process and keep emissions at a minimum level.
- **Performance & Efficiency:** NOx sensors help ensure the vehicle operates efficiently while minimizing its environmental impact.



Products & Solutions

- **Main Product Group:** NOx sensors for passenger vehicles, trucks, buses, and construction machinery. Additionally, the company plans production of particulate sensors (PM sensors), temperature sensors, pressure sensors, and exhaust gas temperature sensors (EGTS).
- The products are used in the European Union, North American, and Asian markets, providing solutions for both OEM and aftermarket needs.





Quality Management

- **MCT** holds ISO 9001, 14001, 45001, and R10 certifications, and will soon obtain IATF 16949 certification.
- **Product testing** is supported by vibration, temperature, humidity, durability, and field simulation tests.
- Every stage of production is monitored through digital quality control, ensuring 100% traceability.
- Continuous improvement methods such as Kaizen, 5S, and TPM are actively implemented.



Warranty & Quality



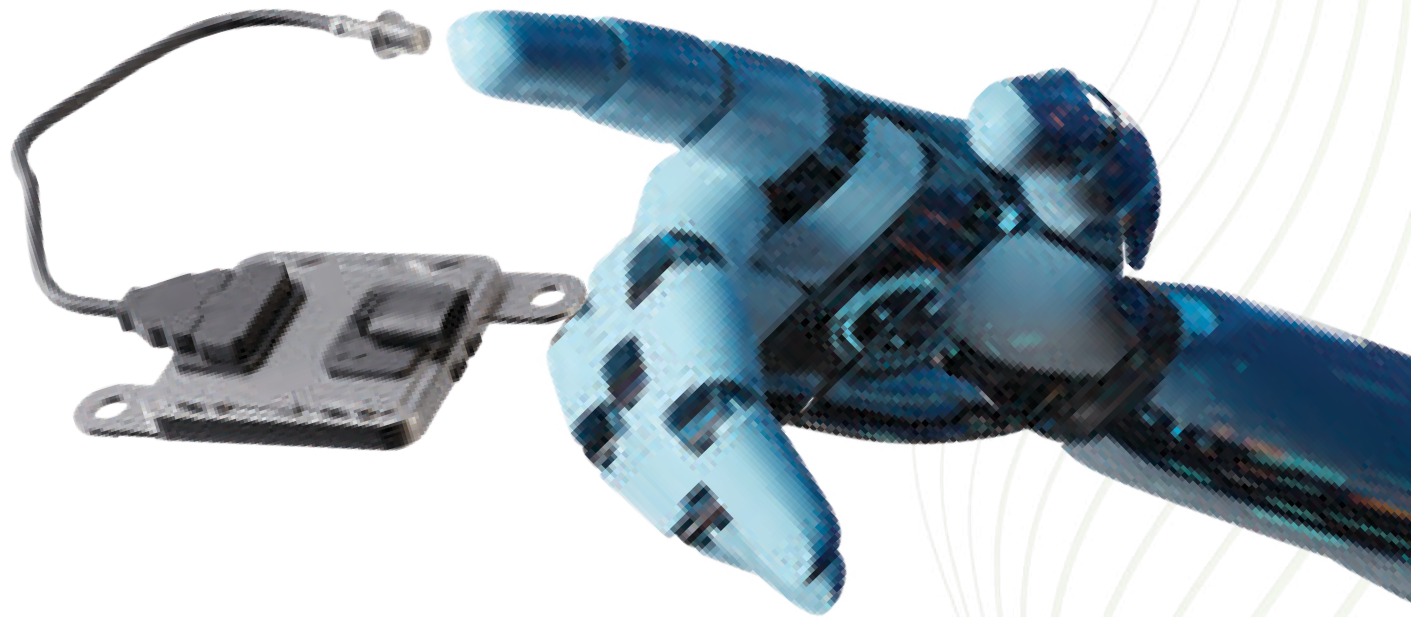
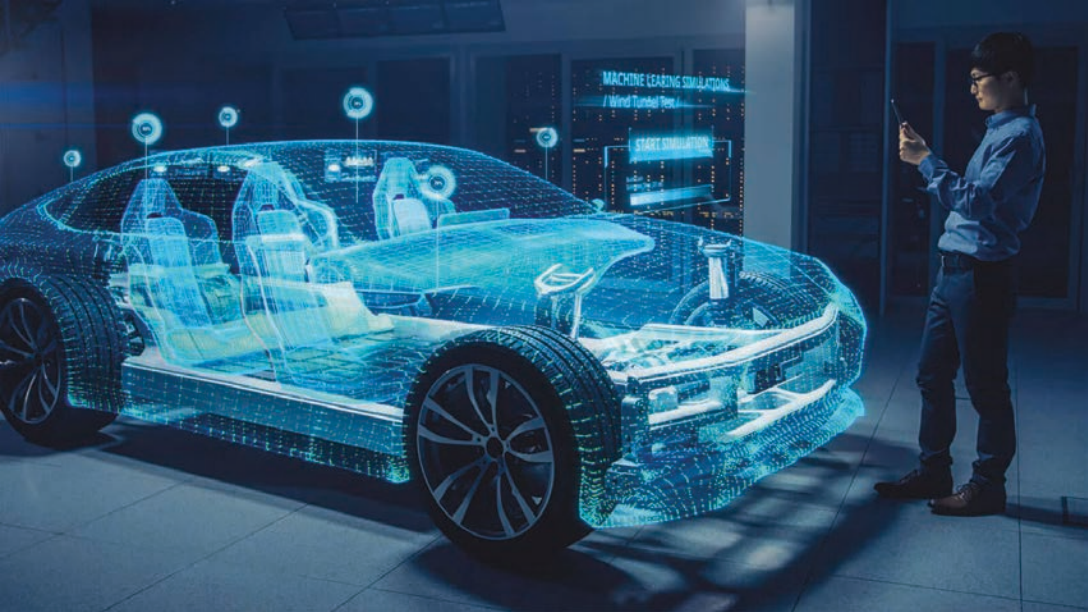
Products in our portfolio are covered by a 12-month warranty when used in accordance with tracking and control rules via serial numbers.

After installation on the vehicle, our products are protected under warranty coverage provided by Türkiye Sigorta and are included in product liability insurance.



Conducted Tests

- Sealing Test
- Salt Spray Test
- Voltage Coverage and Sensitivity Test
- Thermal Shock Test
- Aging Test



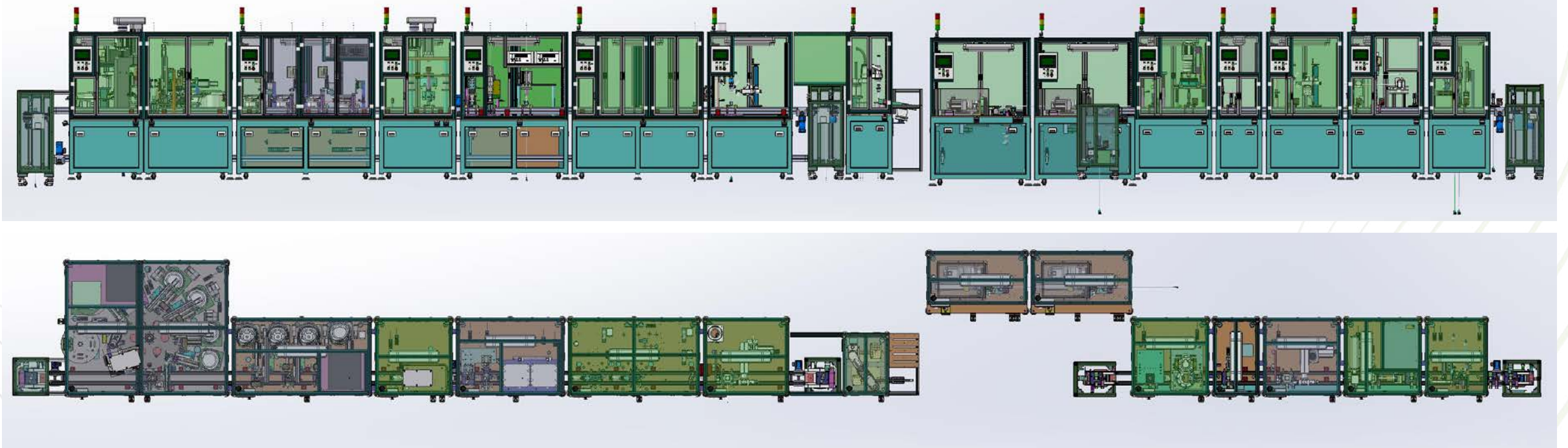
R&D and Innovation

- At its R&D center in Istanbul, **MCT** develops next-generation sensor technologies with a 10-member R&D team.
- Research focuses include new sensor platforms compliant with Euro 7 standards, zirconia-based ceramic cell production, and wireless sensor protocols.
- The company also develops patentable projects through university–industry collaborations.



Markets & References

- **Approximately 80% of MCT products are exported**, with 15% supplied to domestic OEM manufacturers and 5% to the spare parts market.
- Export markets include **Germany, Poland, Spain, Belgium, Italy, France, the UK, the Netherlands, Portugal, the USA, Brazil, Canada, Qatar, Korea, Japan, and China.**
- **International trade fair participation includes** Automechanika Istanbul, Automechanika Frankfurt, Automec Brazil, AAPEX Las Vegas, and IAA Hannover.
- Strong collaborations are established with major distributors and OEM suppliers across Europe.

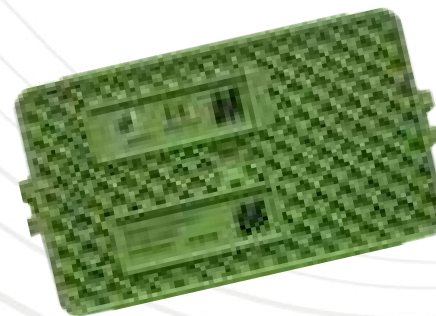


Investments & Growth Strategy

- **MCT** plans a \$30,000,000 investment in a new factory and ceramic sensor production line for the 2024–2027 period.
- The company aims to increase production capacity by 150% over the next five years and expand its product portfolio to include sensors for electric vehicles.
- Additionally, MCT intends to strengthen its fast delivery infrastructure by establishing new logistics centers in the USA and the EU.

Environment, Sustainability & Social Responsibility

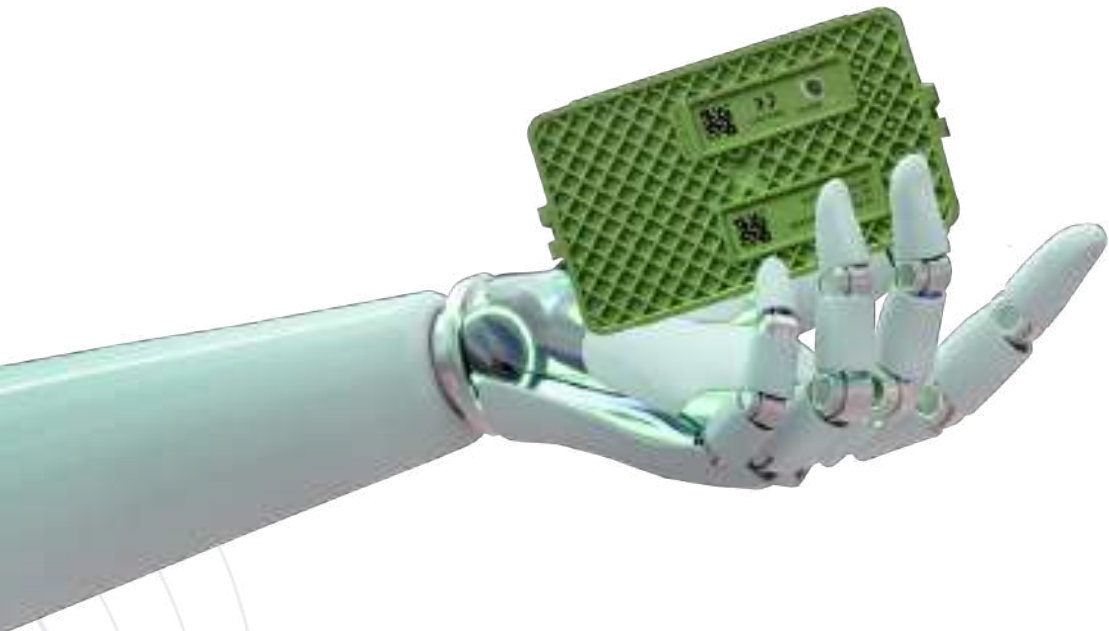
- **MCT** adopts a low-carbon footprint and recycling-based raw material approach in its production processes.
- A tree-planting project is implemented for every sensor produced, planting one tree for every 10 Nox sensors purchased.
- High energy-efficiency machines and renewable energy sources are prioritized.
- **Energy Efficiency:** Our production processes ensure low energy consumption and high efficiency.
- **Recycling:** We use recyclable and environmentally friendly materials in production.
- **Low Carbon Footprint:** These sensors minimize environmental impact by reducing carbon emissions.





Quality Expectations & Customer Satisfaction

- **MCT** provides its customers with fast delivery, low defect rates, and continuous technical support.
- Customer feedback is regularly analyzed and incorporated into product improvements.
- Full compliance with supplier and customer quality expectations is ensured.



SWOT Analysis

- **Strengths:** High quality standards, strong export network, experienced R&D team.
- **Weaknesses:** Production capacity may occasionally be limited in meeting rapidly increasing demand.
- **Opportunities:** Implementation of Euro 7 emission standards and growing environmental awareness, increasing demand for NOx sensors.
- **Threats:** Raw material price fluctuations and global supply chain challenges.



Future Vision & Conclusion

- **MCT** aims to be among the top two global manufacturers in the NOx and emission sensor market within the next 5–10 years.
- Sustainable growth is planned through new technologies and sensor solutions for electric vehicles.
- In conclusion, with its focus on innovation and quality, **MCT** will continue to be a strong global partner in the automotive industry.

Countries We Operate In



Türkiye



Bulgaria



USA



Germany



Dubai





The World's First Green NOx Sensor

Environmental Awareness & Sustainability

We are proud to produce the world's first green NOx sensor. These sensors are designed using environmentally friendly materials and sustainable manufacturing techniques.

save the
world



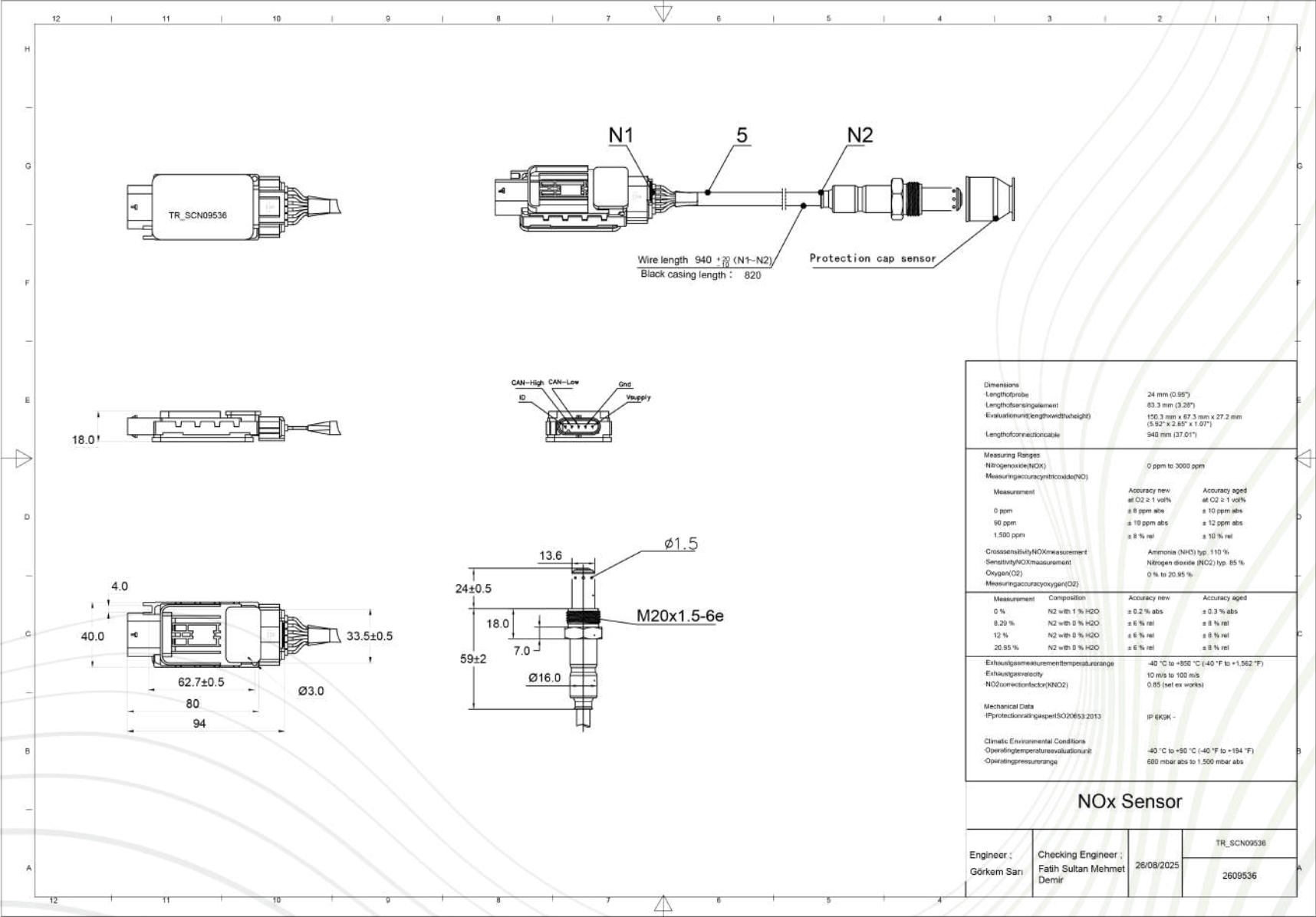
Our Key Features

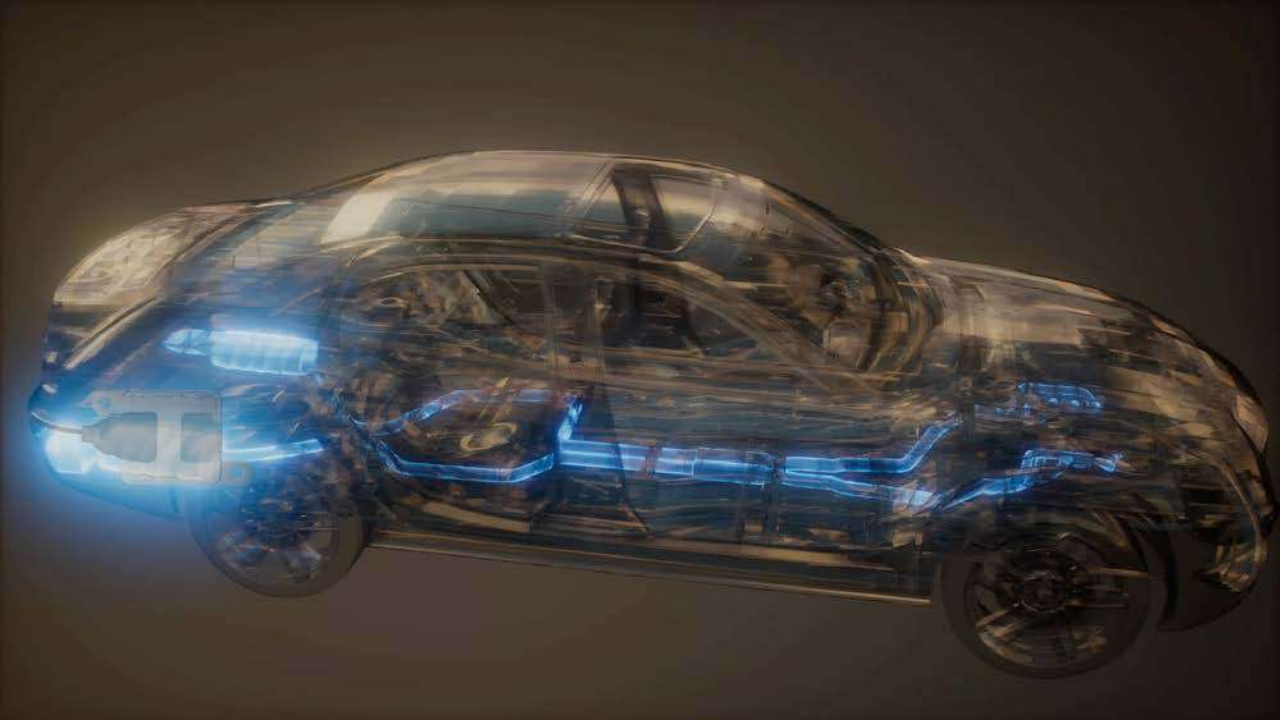
- **Innovative Technology:** Our NOx sensors, developed with in-house software and PCB designs, provide solutions best suited to industry needs.
- **High Performance:** Our sensors deliver precise data collection and superior emission control performance.
- **Environmentally Friendly Production:** Manufactured using sustainable techniques and eco-friendly materials.
- **OEM Customer Acquisition:** Contact has been made with two different OEMs, and preparation work has begun.

MCT Technic's Technological Strength: In-House Software and PCB Design

The software and PCB designs used in our NOx sensors are entirely developed by MCT Technic's R&D department. This enables us to produce some of the most precise and reliable sensors in the industry.

NOX SENSOR TECHNICAL DRAWINGS





Our Technological Advantages

- **High Accuracy:** Specialized software and hardware solutions that minimize measurement errors.
- **Efficiency & Durability:** Long-lasting and reliable performance even under challenging conditions.
- **Customizability:** Sensor solutions tailored for different vehicle and engine types.

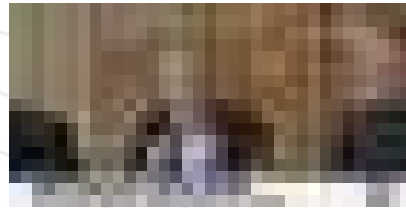
SPONSORSHIP & SUPPORT



TITLE SPONSOR OF GALATASARAY MEN'S BASKETBALL TEAM

Investment in the Future & Our Sports Sponsorships

- At MCT Technic, we support young people not only in technology but also in sports and education. **This year, we became the main sponsor of the Galatasaray Men's Basketball Team, with the MCT Technic logo featured prominently on the front of the players' jerseys.**
- **Sports Sponsorships:** Galatasaray Men's Basketball Team, the U14 Turkey champion football team in the earthquake-affected region, and fencing and cycling clubs in Kahramanmaraş.
- **Education & Science Support:** Scholarships for 716 students and robotic coding classes in Istanbul and Konya.
- **International Achievements:** Sponsorship of Atlas UAV and Atlas Drone teams, as well as national triathlon athlete Kivanç Şahinkaya.
- Through these sponsorships, we continue to support the achievements of young people and athletes.



THANK YOU



MCT Yedek Parça İmalat Tic. San. Ltd. Şti.

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