



TÜMOSAN
2024 TSRS Aligned Sustainability Report



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Introduction

Climate change has evolved into a systemic risk factor that affects all industries on a global scale and has become a key assessment criterion, particularly for financial capital providers. In this context, investors, lenders, and insurance companies increasingly expect corporations to disclose their climate-related financial risks and opportunities in a comparable, consistent, and transparent manner. To address these expectations and align with international reporting practices, the **Türkiye Sustainability Reporting Standards (TSRS)** have been developed and enacted. Published in the Official Gazette No. 32414 on December 29, 2023, the TSRS came into effect as of January 1, 2024. The TSRS are based on two core standards issued by the **International Sustainability Standards Board (ISSB)**:

- **TSRS 1:** General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1)
- **TSRS 2:** Climate-related Disclosures (IFRS S2)

These standards provide a structured framework that enables companies to integrate the impacts of climate change into their financial decision-making processes and to disclose such impacts transparently. The framework is built around three primary disclosure categories:

- **Transition Risks:** Regulatory, market, and technological risks that may arise during the transition to a low-carbon economy,
- **Physical Risks:** Risks associated with the increasing frequency of extreme weather events and long-term climatic changes,
- **Climate-related Opportunities:** Potential opportunities emerging from the transition process, such as new business models, increased efficiency, and product innovation.

Disclosures under TSRS 2 are structured across four key reporting pillars:

- **Governance** – How climate-related responsibilities are embedded within the corporate governance structure and processes,
- **Strategy** – The impacts of climate-related risks and opportunities on the business model, strategic planning, and value chain,
- **Risk Management** – Processes for identifying, assessing, and managing climate-related risks,
- **Metrics & Targets** – Climate-related performance indicators, targets, and progress toward achieving these objectives.



About the Report



About the Report

Reporting Scope and Currency

This report has been prepared by Tümosan Motor ve Traktör Sanayi A.Ş. ("TÜMOSAN" or "the Company") to transparently communicate its sustainability performance related to climate-associated risks and opportunities in line with the **Türkiye Sustainability Reporting Standards (TSRS)**. Within this scope, the report is based on the **TSRS 2 – Climate-related Disclosures** standard, which was published in the Official Gazette No. 32414 on **December 29, 2023 and entered into force as of January 1, 2024**.

TÜMOSAN provides disclosures under the TSRS framework in accordance with its long-term strategic goals, climate risk assessments, and sectoral priorities across the agriculture, engine, and defense sectors. In sector-specific climate assessments, the guidelines published by the **Sustainability Accounting Standards Board (SASB)** were also taken into consideration.

The reporting period covers the activities between **January 1, 2024 and December 31, 2024**. All financial and sustainability data presented in this report are expressed in Turkish Lira (TL) and rounded to the nearest thousand (thousand TL).

When determining the scope of the report, operational areas that are **not directly related to TÜMOSAN's core business activities or that have no material impact on sustainability performance** were excluded from the evaluation.

TSRS Transitional Provisions and Exemptions

As of 2024, TÜMOSAN has prepared its first sustainability report under the **Türkiye Sustainability Reporting Standards (TSRS)**. In this first year of implementation, the Company has benefited from **the transitional provisions and facilitating practices provided under the TSRS**.

Accordingly, the first reporting period focuses solely on climate-related risks and opportunities, and the report has been prepared in alignment with TSRS 2 – Climate-related Disclosures. Detailed disclosures on environmental, social,

and governance (ESG) matters will be included in **subsequent reporting periods (2025 and beyond)**. This approach is permitted under **TSRS 1 E5 transitional relief**.

In line with TSRS 2, TÜMOSAN has initiated scenario-based analyses to assess short-, medium-, and long-term climate risks, referencing the IPCC's RCP 2.5, RCP 4.5, and RCP 8.5 climate scenarios. These analyses are designed to evaluate the potential impacts of both physical and transition risks on the Company's operations.

Pursuant to **TSRS 1 E3**, comparative data from previous years have not been included in this initial reporting period. Under the **TSRS 1 E4 transitional relief**, sustainability data will be prepared following the publication of TÜMOSAN's 2024 financial statements and disclosed concurrently with the financial reports. Additionally, in accordance with **TSRS 2 C4, Scope 3 greenhouse gas emissions** (indirect emissions arising from upstream and downstream activities) are excluded from this first report. The Company aims to establish the necessary processes and data infrastructure to calculate and disclose Scope 3 emissions in the coming years.

The report has been prepared on a consolidated basis, covering TÜMOSAN Motor ve Traktör Sanayi A.Ş. as the parent company and its fully consolidated subsidiaries, including TÜMOSAN Döküm A.Ş., TTM TÜMOSAN Teknoloji Mühendislik Sanayi ve Ticaret A.Ş., and TÜMOSAN Teknoloji Mühendislik Sanayi Ticaret A.Ş. Sustainability disclosures are presented, as in the financial reports, in a manner that reflects the integrated activities of the parent company and its subsidiaries.

The primary purpose of this report is to transparently present the current and potential impacts of climate change on TÜMOSAN's business model, operations, value chain, and strategies. In the forthcoming reporting periods, more comprehensive sustainability disclosures – including social and governance topics as well as financial impacts – will be shared with the public.



Reporting Boundary

The subsidiaries, assets, and activities included in this sustainability report are identical to those presented in TÜMOSAN's financial statements as of **December 31, 2024**. No disposals or mergers took place within the Group structure during the reporting period.

The reporting scope covers **TÜMOSAN** as the parent legal entity, together with its fully consolidated subsidiaries. Within this scope, the following subsidiaries are included in the report:

- **TÜMOSAN Döküm A.Ş.:** The company commenced its production activities on July 4, 2012, and manufactures cast iron components at its facility built on an area of 15,340 m². TÜMOSAN holds 100% of the company's share capital.
- **TTM TÜMOSAN Teknoloji Mühendislik Sanayi ve Ticaret A.Ş.:** Established to conduct R&D activities, develop new products, perform prototyping, technical consultancy, and software development. However, as of the reporting date, the company has no active operations.
- **TÜMOSAN Teknoloji Mühendislik Sanayi Ticaret A.Ş.:** Founded by TÜMOSAN and registered in the trade registry on April 5, 2022, pursuant to the partial demerger expert report dated December 11, 2021. The company's field of activity covers technology and engineering, focusing on product development and R&D initiatives. As of the reporting period, there is no recent development regarding its operations.

GHG Emissions Reporting Boundary

For the period January 1, 2024 – December 31, 2024, TÜMOSAN prepared its greenhouse gas (GHG) emissions inventory in full compliance with the GHG Protocol Corporate Standard. The inventory was independently verified with limited assurance Yeditepe Bağımsız Denetim ve YMM A.Ş. in accordance with ISO 14064-3:2019. TÜMOSAN determines the consolidation boundary for its emissions reporting based on the operational control approach. Under this approach, the emissions from all facilities and activities over which TÜMOSAN has operational control are included in the Company's GHG inventory. As joint ventures are also consolidated within TÜMOSAN's financial statements according to the control principle, the GHG inventory boundary is consistent with the financial consolidation boundary. By adopting the operational control approach, TÜMOSAN ensures that all activities where it has the ability to implement its policies and manage emissions are included within the reporting scope.

Operational Boundary

TÜMOSAN's operational boundary covers Direct (Scope 1) and Energy Indirect (Scope 2) greenhouse gas emissions. Scope 1 includes emissions released directly from sources owned or controlled by the Company – such as fuel consumption from generators and boilers at the factories, and fuel used by Company vehicles. Calculations were performed by identifying the amounts of diesel, gasoline, and natural gas consumed during the reporting period and multiplying these values by the corresponding standard emission factors.

Scope 2 comprises indirect emissions arising from the consumption of purchased electricity. Electricity consumption data from TÜMOSAN's plants and offices were collected, and national grid emission factors were applied to calculate the associated GHG emissions.

In the calculations, all greenhouse gases covered under the Kyoto Protocol – including CO₂, CH₄, N₂O, HFCs, SF₆, PFCs, and NF₃ – were taken into account.



Scope	Location-Based (tCO ₂ e)	Market-Based (tCO ₂ e)
Scope 1 Emissions	4,672.84	-
Scope 2 Emissions	4,672.84	2,212.23
Total (Scope 1 + 2)	6,943.55	2,212.23

All greenhouse gas emission calculations have been based on the following methodology:

- **Scope 1:** Emissions resulting from natural gas, diesel, and gasoline consumption, as well as process emissions, were calculated using the IPCC 2021 Higher Heating Value (HHV) factors.
- **Scope 2 (Location-Based):** Calculations were based on the average carbon intensity factors applicable to Türkiye's national electricity grid. For TUMOSAN's Konya production facilities, market-based emission factors were also applied.
- **Scope 2 (Market-Based):** In addition to grid electricity consumption, market-based emission factors were used within the framework of corporate power supply agreements. Electricity purchases not covered by renewable energy certificates were calculated using the emission factors of the respective suppliers.

Emission factors used in this report were assumed constant throughout the year. The accuracy of meter and invoice data was verified by internal audit and field teams, confirming that measurement deviations remained within acceptable limits.

Under the TSRS 2 C4 transitional exemption, Scope 3 emissions have not been included within the reporting boundary for this period. However, data collection and quality improvement efforts are ongoing within internal processes.

The main reasons for the selected methodological approach are as follows:

- **Comparability and Verifiability:** The GHG Protocol is widely recognized and accepted at the international level.
- **Data Reliability:** The accuracy of meter and invoice records, along with the currency of official emission factors, ensures data reliability.

The operational boundaries have been determined as follows:

Istanbul Headquarters

(TUMOSAN Motor, TTM TUMOSAN, TUMOSAN Teknoloji ve Mühendislik, TUMOSAN Döküm)
Maltepe Neighborhood, Londra Asfaltı Street No: 28/1,
Topkapı 34010, Zeytinburnu / İstanbul

Konya Factory Facility

(TUMOSAN Motor, TUMOSAN Döküm)
Büyükkayacık Neighborhood,
Aksaray Çevre Yolu Street No: 7/1, Selçuklu / Konya



Financial Measurement Uncertainty

During the preparation of this sustainability report, TÜMOSAN carried out evaluation processes to identify, classify, and define the reporting scope of climate-related risks and opportunities. Since certain issues cannot be measured directly or are based on potential future events, the assessments incorporated scenario analyses, assumptions, and reasonable estimates.

For matters involving a high degree of uncertainty but considered strategically important, estimates were made using the best available information and presented transparently, together with the related assumptions and limitations.

Furthermore, for some risks and opportunities where reliable quantitative data, sector-standard metrics, or appropriate methodological tools are not yet available, the relevant disclosures have been limited to qualitative information. TÜMOSAN has adopted a continuous improvement approach to enhance data capacity and improve measurability in these areas.

➤ **Decrease in Tractor Demand Due to Extreme Weather Events**

Tractor sales, which are critical to TÜMOSAN's business model, are affected by extreme weather events such as drought, frost, irregular rainfall, and floods caused by climate change. These conditions may lead to fluctuations in agricultural production capacity, resulting in reduced tractor demand. However, the financial impacts of this decline in sales (for instance, changes in annual revenue or gross profit margin) could not be quantitatively modeled during the current reporting period. This limitation arises from multiple sources of uncertainty, including regional variations in climate events, the influence of agricultural support policies, farmer demand elasticity, and alternative market dynamics. Therefore, for the year 2024, only qualitative disclosure has been provided.

➤ **Compliance with Carbon Regulations (CBAM, ETS)**

The European Union's Carbon Border Adjustment Mechanism (CBAM) and the Emissions Trading System (ETS), planned to be implemented in Türkiye by 2029, have the potential to create financial pressure on TÜMOSAN's production activities and Scope 1 emissions. However, uncertainties remain regarding the ETS allocation methodology, free allocation ratios, carbon pricing levels, and the product coverage of the CBAM. Therefore, it has not been possible to quantitatively reflect the cost increases associated with compliance with carbon regulations on the financial statements – such as the potential effects on operating expenses, net profitability, or export competitiveness. For this risk, only scenario-based and qualitative disclosures have been presented in this report.

➤ **Energy Supply and Price Volatility**

Electricity and natural gas used in production processes account for a significant portion of TÜMOSAN's energy costs. Fluctuations in global energy prices, supply constraints, and exchange rate volatility create uncertainty in the overall cost structure.

However, the extent to which rising energy prices may affect the company's production costs, the ability to pass these costs on to product prices, and the price elasticity of market demand are not yet clearly defined. Consequently, it has not been possible to quantify the financial impacts at this stage. For the 2024 reporting period, only qualitative disclosure has been provided, and quantitative projections are expected to be shared once market forecasts for the energy sector become more definitive.



Overview of TÜMOSAN



Overview of TÜMOSAN

About TÜMOSAN

Founded in 1976, TÜMOSAN began operations as one of Türkiye's first domestic diesel engine manufacturers and has since evolved into an integrated technology company that develops solutions not only for the agricultural sector but also for the industrial and defense sectors. The company's production facility in Konya spans an area of 1,600,000 m², including 93,000 m² of enclosed space, with an annual production capacity of 75,000 engines and 45,000 tractors.

Operating under the Albayrak Group, TÜMOSAN has a robust organizational structure that covers the production of diesel engines, tractors, and diesel and electric forklifts, as well as marketing, sales, and after-sales services. The engines produced by the company are widely used by customers in Türkiye and abroad across various sectors such as agriculture, automotive, cleaning equipment, generators, and marine vehicles.

With its experienced workforce and innovative technologies, TÜMOSAN aims to enhance customer productivity by delivering high-quality and reliable solutions. The company develops long-term business partnerships through a wide range of product models tailored to customer needs and strong after-sales support services. Its marketing operations are based in İstanbul.

Leveraging its engineering capabilities, TÜMOSAN has recently expanded its presence beyond the tractor segment. Within the scope of its R&D activities,

the company focuses not only on modernizing its core product lines but also on advancing strategic fields such as defense and energy technologies. In this context, TÜMOSAN develops domestic engine and transmission solutions for tactical wheeled vehicles, designs and tests marine engines that can be integrated into armed unmanned surface vessels, and contributes to environmental sustainability and import substitution with next-generation engines compliant with Stage V emission standards, electric and hybrid material-handling machines, precision control systems for agriculture, and domestic generator solutions.

Through its numerous technology and engineering projects, TÜMOSAN not only expands its product portfolio but also supports Türkiye's localization and industrial independence objectives. Its power group solutions for the defense industry, marine engine systems, and alternative fuel technologies reflect the company's advanced R&D capacity, while projects in energy technologies — such as low-temperature fuel cell systems — demonstrate its commitment to innovative solutions in alternative energy.

From production to technology, from product development to marketing, TÜMOSAN shapes all of its processes with its own resources, adopting a sustainable, high value-added business model grounded in domestic engineering expertise. Operating with the dual aim of contributing to the national economy and creating long-term stakeholder value, the company continues to strengthen its leading position in the industry through an expanding product portfolio and ongoing technology investments.



Value Chain

Maintaining its leading position in Türkiye's domestic and national engine production, TÜMOSAN achieved strategic progress across all stages of its value chain in 2024. The development of Stage V engines, the expansion of its export network, the strengthening of R&D investments, and the wider implementation of ISO-based integrated management systems demonstrate that the company has reached a critical stage in terms of sustainability and competitiveness in engine manufacturing. Diesel engine production lies at the center of TÜMOSAN's value chain, shaping all supply, production, distribution, and customer interaction processes.

Supply and Production (Upstream)

Procurement, which constitutes the first stage of the engine manufacturing process, plays a critical role in TÜMOSAN's operational performance. Approximately 95% of the high-precision parts and strategic raw materials used in the casting plant in Konya are sourced from abroad, making the company's supply structure sensitive to geopolitical developments. Imports from countries such as Russia, Ukraine, South Africa, Sweden, Brazil, China, the United States, India, Romania, France, Canada, Germany, Norway, and Spain require careful management of supply chain vulnerabilities.

In this context, TÜMOSAN has positioned **TÜMOSAN Döküm A.Ş.** as a strategic in-house resource to reduce external dependency. By producing the cast iron parts needed for engine manufacturing within its own structure, the company has achieved advantages in quality, continuity, and cost efficiency. This approach has strengthened vertical integration within the group and increased domestic production capacity for critical inputs.





The company bases its supplier relationships on quality assurance, environmental responsibility, and corporate risk management, integrating its **Integrated Management Systems**—which include multiple international standards such as ISO 9001, ISO 14001, ISO 45001, ISO 55001, and ISO 50001—into its supply chain.

Supplier selection and evaluation processes are carried out in accordance with the Supplier Identification and Evaluation Procedure, and all suppliers are regularly audited and assessed based on performance criteria.

Production and R&D

TÜMOSAN's production activities are carried out at its integrated manufacturing facility in Konya, which has an enclosed area of 93,000 m². The production process includes the machining and assembly of key components such as engine blocks, cylinder heads, transmission, and gearbox housings. Each engine undergoes performance, emission, and durability tests in quality control and test cells before being prepared for shipment.

The most significant development in 2024 was the production of **Stage V engines compliant with European Union emission standards**. These engines were integrated into tractor series ranging from 48 to 125 horsepower, achieving a **localization rate of 97%**—one of the highest in the sector. As a result, TÜMOSAN has strengthened its position as a major player not only in the domestic market but also in the European market.

The R&D Center in İstanbul focuses on developing energy-efficient and environmentally friendly engine systems and carries out studies on hybrid, electric, and alternative-fuel solutions. In 2024, TÜMOSAN expanded into new markets such as Bosnia and Herzegovina, Iraq, and Ukraine, increasing its export volume through innovative, R&D-driven products.

Distribution, Sales and Customer Relations (Midstream and Downstream)

TÜMOSAN delivers its engine systems both as standalone products and as integrated components in final products such as tractors, generators, and forklifts. With an extensive network of dealers and sales points across Türkiye, the company manages its international distribution through dealership agreements and local partnerships. In 2024, the number of export destinations increased, and the distributor network was expanded.

Operating with a service network comprising 76 tractor dealers, 30 spare parts dealers, and 369 authorized service centers across Türkiye, TÜMOSAN provides on-site maintenance and repair services in 76 provinces through its mobile service vehicles. Product deliveries are managed through logistics optimization systems, and in line with ISO 14001 and ISO 50001 standards, continuous improvements are made to transportation routes, packaging materials, and logistics methods to reduce the company's carbon footprint.





Customer Relations and Continuous Improvement

TÜMOSAN positions its after-sales services as a strategic value, offering fast and effective solutions to its customers through mobile service vehicles, technical support teams, and a comprehensive spare parts network. Customer satisfaction is measured through surveys, field visits, fairs, and field days, while feedback is recorded in the QDMS system and directed to the relevant departments. In addition, within the scope of product development and failure management processes, corrective and preventive actions (CAPAs) are initiated through records created in the Windchill system.

All these processes are carried out within the framework of the ISO 10002 Customer Satisfaction Management System. The data obtained are transferred to R&D processes, enabling continuous improvements in product design and functionality. Within the scope of circular economy practices, recyclable materials, the reuse of scrap metals, and recyclable packaging systems are integrated into production processes.

This holistic approach enhances TÜMOSAN's organizational learning capacity and innovation strength, enabling the company to build long-term business partnerships based on sustainable customer satisfaction.

Business Model and Core Activities

TÜMOSAN's business model is built on a domestically oriented production structure, strong engineering capability, a vertically integrated supply chain, and a diversified customer portfolio across multiple industries. Operating in the agriculture, defense, and energy sectors, the company achieves a competitive advantage in both domestic and international markets through its products and services in the fields of engines, transmissions, drivetrains, and power systems.

The business model creates value by completing the entire production process – starting from in-house foundry and machining facilities, and extending through design, R&D, assembly, testing, sales, after-sales service, and the customer feedback cycle. TÜMOSAN supports this model with its continuously developing R&D infrastructure and integrated management systems.

Target Customer Segments: Leveraging its multi-sector structure, TÜMOSAN provides customized products and services tailored to different customer groups.





- **Agriculture sector:** TÜMOSAN offers tractor solutions with a wide range of horsepower options for small- and large-scale agricultural enterprises operating across Türkiye. The company also supports precision farming applications through electronic control units (ECUs).
- **Energy sector:** Through its diesel engine-based generator systems, TÜMOSAN provides uninterrupted power supply for critical infrastructure and delivers reliable energy solutions for both industrial and rural areas.
- **Defense industry:** TÜMOSAN develops domestic and national engines, transmissions, and powerpack solutions for special-purpose land vehicles and fixed-base power systems, designing products tailored for tactical operations.

Revenue Streams: TÜMOSAN's revenue model consists of both product sales and service-oriented activities, including:

1. Sales of new products (tractors, diesel engines, generators, material handling equipment),
2. Spare parts sales and after-sales service contracts,
3. Project-based engineering commitments and specialized production carried out under defense industry projects,
4. Training and consultancy services for operators and technical personnel.

Resource Structure and Operational Infrastructure: TÜMOSAN's production infrastructure is built on a high-capacity integrated system located in Konya, covering casting, machining, assembly, and testing operations. This structure provides advantages in both quality control and cost efficiency in engine manufacturing.

The company also operates an R&D Center based in Istanbul, managing projects focused on new product development, process improvement, and innovation. Ongoing work spans a broad product range — from diesel engines to marine systems, and from hybrid powertrains to fuel cell technologies.

Among the projects carried out in 2024 are:

- Development and integration of a Stage V emission-compliant engine family for the European market.
- Development of diesel and hybrid engine systems (TMSN 5.4) for tactical wheeled vehicles.
- Domestic development of marine engines used in armed unmanned surface vehicles.
- Commercialization of 3.5-ton diesel forklifts and development of a 5-ton model.
- R&D studies on 10 kW PEMFC fuel cell module technology.
- Development of Common Rail engine systems for backhoe loaders.

Key Partnerships and Stakeholder Structure: TÜMOSAN's business model is built on strategic collaborations developed with public institutions, private sector clients, domestic and international distributors, and technology providers. From projects conducted with the Presidency of Defence Industries (SSB) to domestic R&D and university collaborations, numerous partnerships have been established, expanding the company's overall solution network.

The company also maintains a strong nationwide distribution channel through its extensive network of dealers and service points across Türkiye. In international markets, TÜMOSAN has expanded its export channels by entering new markets such as Bosnia and Herzegovina, Iraq, and Ukraine.

Competitive Advantage and Sustainability Approach: TÜMOSAN's business model is shaped by its domestic production infrastructure, high engineering capacity, and integrated quality systems. Achieving a local content ratio of up to 97% positions the company as a leading player in reducing dependency on imported critical components.

Within its R&D-driven business model, environmental sustainability is also a key pillar. The development of engines compliant with Stage V emission standards, implementation of circular economy practices, use of recyclable materials, and fuel efficiency-oriented designs all reflect this commitment. Furthermore, the implementation of ISO 14001 and ISO 50001 standards within the integrated management system demonstrates TÜMOSAN's holistic approach to sustainability principles.



Governance



Governance

Board of Directors Structure

TUMOSAN's Board of Directors consists of six members, including two independent members. As the company's highest decision-making and supervisory body, the Board is responsible for the overall management of the company, as well as for monitoring its strategic objectives and performance indicators.

Name - Surname	Title - Position	Term of Office	Independence Status	Committees and Role
Ahmet ALBAYRAK	Chairman of the Board	3 years as of September 1, 2022	Non-Independent	
Nuri ALBAYRAK	Vice Chairman of the Board	3 years as of September 1, 2022	Non-Independent	
Muzaffer ALBAYRAK	Board Member	3 years as of September 1, 2022	Non-Independent	
Mesut Muhammet ALBAYRAK	Board Member	3 years as of September 1, 2022	Non-Independent	Member of the Corporate Governance Committee – Chairperson of the Early Risk Detection Committee
Aygün KARAKAŞ	Board Member	3 years as of November 28, 2022	Independent	Chairperson of the Audit Committee
İsmail YÜKSEK	Board Member	3 years as of September 1, 2022	Independent	Corporate Governance Committee – Chairperson; Early Risk Detection Committee – Member; Audit Committee – Member

Executive Management

Muzaffer Albayrak

Chairman of the Executive Board / Member of the Board of Directors

Halim Tosun

General Manager / Deputy Chairman of the Executive Board

Kurtuluş Ögün

Member of the Executive Board

Bülent Bolat

Member of the Executive Board



Board Responsibilities and Oversight

At TÛMOSAN, the governance structure has been designed to support the company's strategic objectives, operational continuity, and sustainability performance. In this context, the assessment of sustainability- and climate-related risks and opportunities, the formulation of related strategies, and the monitoring of performance are carried out under the direct oversight of the Board of Directors, with the contributions of relevant committees.

To ensure the effective fulfillment of the Board's duties, the following committees have been established:

- **Audit Committee:** The Audit Committee at TÛMOSAN is composed of at least two members selected from among the independent members of the Board of Directors and operates directly under the Board. The Committee is responsible for ensuring the accuracy of financial statements, evaluating the effectiveness of internal control systems, and overseeing independent audit processes. It conducts assessments on matters such as the selection of the independent auditor, auditor independence, and the compliance of financial statements with accounting principles, and submits written reports to the Board of Directors. Additionally, the Committee confidentially reviews notifications received from employees and stakeholders, ensuring compliance with legal regulations and internal company policies and procedures. When necessary, it initiates special audits or engages expert support to strengthen the internal control structure. The Committee meets at least four times a year, and all meeting resolutions are documented and reported to the Board of Directors.
- **Early Risk Detection Committee:** At TÛMOSAN, the Early Risk Detection Committee operates with the purpose of identifying, assessing, and developing preventive measures against strategic, operational, financial, and legal risks that may threaten the company's existence, sustainability, or ability to achieve its objectives. The Committee reviews the effectiveness of the company's risk management and internal control systems at least once a year, and submits reports to the Board of Directors every two months. It ensures that the principles for managing risks are aligned with the company's risk appetite, evaluates risk reports, and facilitates the establishment of preventive systems where necessary. The Committee may seek the opinions of independent experts and reviews employee notifications confidentially. While the final decision-making authority rests with the Board of Directors, the Committee's recommendations play an important role in shaping the company's corporate risk management processes.
- **Corporate Governance Committee:** At TÛMOSAN, the Corporate Governance Committee is responsible for monitoring the company's compliance with corporate governance principles, identifying areas for improvement, and submitting related recommendations to the Board of Directors. In accordance with Capital Markets Board (CMB) regulations, the Committee also undertakes the duties of the Nomination and Remuneration Committee. It oversees the evaluation of candidates for Board membership and senior management positions, monitors compliance with independent membership criteria, and supervises the determination of performance metrics and remuneration principles. The Committee also conducts periodic assessments regarding the structure and functioning of the Board of Directors. The company's



Investor Relations Department operates under the Chairmanship of the Committee, ensuring the protection of shareholders' rights, monitoring of general assembly processes, and fulfillment of public disclosure obligations. The Committee is composed of at least two members of the Board of Directors and the Investor Relations Manager. When necessary, it may seek support from external experts, and the required resources are provided by the Board of Directors. The Committee convenes as frequently as necessary within the scope of its duties, informs the Board of Directors, and reports its decisions in writing.

- **Sustainability Committee:** Established in 2024, the Sustainability Committee is responsible for defining the company's ESG strategy, setting related targets, monitoring policies and practices, ensuring the

collection of data required for sustainability reporting, and tracking relevant performance indicators. The Committee is chaired by a Member of the Board of Directors and includes the General Manager as well as senior and mid-level managers from various functions.

TÜMOSAN encourages active participation at all organizational levels, including the Board of Directors, to ensure the continuous improvement of sustainability performance and the effective management of risks and opportunities. In this context, the Sustainability Committee was established within the Board of Directors to shape the company's strategic approach to environmental, social, and governance (ESG) matters, implement policies and objectives, monitor performance, and drive continuous improvement.

Committee	Chairperson / Members	Number of Meetings in 2024	Scope of Responsibility
Audit Committee	Aygün Karakaş / İsmail Yüksek	4	Financial reporting, independent audit, internal control, compliance
Corporate Governance Committee	İsmail Yüksek / Muzaffer Albayrak, Niyazi Akkalp	4	Corporate governance principles, nomination & remuneration, shareholder relations
Early Risk Detection Committee	Mesut Muhammet Albayrak / İsmail Yüksek	6	Strategy, climate risk analysis, internal control review

*** As of January 2, 2025, Özge Cantürk has been appointed as a member of the Corporate Governance Committee, replacing Niyazi Akkalp.



Established in 2024, the Sustainability Committee aims to strengthen the company's corporate governance structure for sustainability and to ensure that ESG-related risks and opportunities, particularly those related to climate, are addressed through a holistic approach. The Committee operates under the chairmanship of Board Member Muzaffer Albayrak.

At TÜMOSAN, integrating sustainability and climate-related risks into the corporate strategy is a key priority. In this regard, climate risks and opportunities are considered in the evaluation of major investments and strategic decision-making processes. Both transition and physical risks, along with carbon reduction targets, are treated as integral components of the company's sustainable growth vision. Efforts have been initiated to establish an effective communication system among relevant departments and senior management units to support the assessment and management of climate-related risks and opportunities.

The company also aims to ensure effective coordination across departments and management levels within the scope of climate risk management. Accordingly, a Climate Risk Management Procedure, to be updated annually, will be developed. Risk assessment processes will be carried out by the Sustainability Committee and supported by internal control mechanisms such as the Greenhouse Gas (GHG) Emissions Monitoring System, Energy Management System, and Supplier Sustainability Assessment. The Board of Directors will review the overall performance of these systems at least twice a year during sustainability meetings, evaluate and approve relevant reports, and request improvement actions when necessary.

At TÜMOSAN, sustainability has been integrated into the company's long-term strategic planning process. The five-year strategic plan, developed

and regularly reviewed by senior management under the leadership of the General Manager, aims to enhance the company's competitiveness, improve operational efficiency, and develop a comprehensive action plan for managing climate and sustainability-related risks and opportunities. Structured on SWOT and corporate risk analysis, the plan defines strategic objectives, targets, and actions aligned with the company's priorities. Through the Strategic Plan Target Performance Evaluation System, activities and KPI-based targets are scored across multiple categories, and the performance results of departments and business units are monitored accordingly. These results are presented annually to the Board Member and Chairman of the Executive Board for evaluation.

Currently, sustainability and climate-related performance metrics are not yet integrated into the remuneration system. However, TÜMOSAN plans to incorporate sustainability objectives into individual performance criteria in the coming periods.

Frequency and Method of Information Disclosure

At TÜMOSAN, it is planned to hold internal information meetings at least twice a year with the participation of relevant departments, aiming to increase awareness and strengthen internal communication regarding sustainability and climate-related risks and opportunities. During these meetings, sustainability strategies, regulatory developments, risk and opportunity assessments, and planned actions are reviewed, ensuring a two-way flow of information between employees and management.

Regular communication processes are not limited to meetings but are supported through a variety of communication channels. Email newsletters,



internal portal announcements, online training modules, and periodic reports prepared by the Sustainability Committee facilitate the continuous flow of information on sustainability issues and encourage employee engagement.

The analyses and evaluations conducted by the Committee are shared with the Board of Directors; critical climate-related risks, performance indicators, and improvement recommendations are presented to senior management.

In this way, the Board regularly monitors the effectiveness of sustainability strategies and ensures their integration into strategic decision-making processes. All communication and information activities are documented and archived, both in written and digital form, in line with the principles of transparency, traceability, and accountability.

Sustainability Management

At TÜMOSAN, sustainability management is carried out by the **Sustainability Committee**, established by the resolution of the Board of Directors dated December 20, 2024. The Committee operates under the **direct supervision of the Board**, with the purpose of developing, implementing, and monitoring the company's sustainability strategies. The working principles and responsibilities of the Sustainability Committee will be updated in 2025, with the aim of strengthening the integration of climate and sustainability risks into the company's overall risk management framework, monitoring environmental and social performance, assessing stakeholder expectations, and enhancing transparent reporting processes in line with national and international standards.

Roles and Responsibilities

The Committee is chaired by Board Member Muzaffer Albayrak, and its members consist of mid- and senior-level managers representing different areas of expertise. The coordination and process management of the Committee's activities are carried out by the Investor Relations Department. The duties, authorities, and responsibilities of the Committee are defined

through written procedures, ensuring that TÜMOSAN's sustainability governance is implemented effectively at both the strategic and operational levels.

The Committee's main responsibilities include:

- To define and periodically update the company's sustainability strategy and targets.
- To monitor, evaluate, and enhance sustainability policies and practices to ensure compliance with applicable regulations and standards.
- To oversee processes in line with the Sustainability Principles Compliance Framework issued by the Capital Markets Board of Türkiye (CMB).
- To identify, manage, and plan actions related to sustainability risks and opportunities.
- To monitor, evaluate, and report sustainability performance to senior management.
- To raise awareness among employees and stakeholders, and to support sustainability-related communication efforts.
- To promote the dissemination of best practices by fostering collaboration with suppliers and other stakeholders.
- **Meeting and Reporting Mechanism**

The Committee convenes at least twice a year, and decisions are made by absolute majority and documented with the signatures of the attending



members. The outcomes of each meeting are shared with the relevant departments, and the implementation status of sustainability strategies is regularly reported to the Board of Directors. In addition, the Committee is responsible for monitoring and reporting activities conducted under the “Sustainability Principles Compliance Framework” issued by the Capital Markets Board of Türkiye (CMB). The appointment and reassignment of Committee members are carried out by the resolution of the Board of Directors. The working principles of the Committee are reviewed periodically and updated when necessary. The effectiveness and performance of the Committee are directly evaluated by the **Board of Directors**.

Competence and Skills Assessment

TÜMOSAN regularly evaluates whether its governance bodies and relevant responsible parties possess the knowledge and skills required to effectively oversee strategies related to climate-related risks and opportunities.

Members of TÜMOSAN's governing bodies have the knowledge, experience, and leadership competencies necessary to provide strategic oversight of sustainability and climate-related issues. Independent Board Member Aygün Karakaş holds a bachelor's degree in engineering and master's degrees in systems engineering, economics, and international business. Her extensive experience in executive management roles across various industries, as well as her active involvement in non-governmental organizations, demonstrates her strong capabilities in multi-stakeholder engagement and strategic management. Another Independent Board Member, Prof. Dr. İsmail Yüksek, has held numerous academic and administrative positions over his long career, serving as a consultant and executive at institutions such as TÜBİTAK and KOSGEB. He has made significant contributions to public policy and innovation-driven sustainable growth strategies. During his tenure

as a university rector, he also led initiatives to strengthen collaboration between education, R&D, and industry. The technical, academic, and managerial expertise of both members makes a substantial contribution to the formulation of the company's sustainability and climate policies, the analysis of risks, and the determination of strategic actions. Accordingly, the knowledge and skills of Board members are regularly reviewed, and training and advisory support are planned to address potential areas for development.

As TÜMOSAN continues to strengthen its institutional structure in the field of sustainability, the company is taking steps to establish structured processes and enhance internal capacity in this area:

➤ **Authority and Assignment Process**

- The structuring process of the Sustainability Committee was initiated in 2024.
- The Committee members consist of mid- and senior-level managers who possess decision-making and reporting authority within their respective areas of responsibility.
- The Committee's internal directive, authority documents, and role descriptions defining its areas of responsibility are currently being developed and are expected to be completed during 2025.

➤ **Training, Development, and Advisory Support**

To enhance the company's knowledge base in sustainability and strengthen technical capacity, TÜMOSAN has planned for employees to participate in sustainability specialization training programs in 2025.



- Training programs will focus on GRI Standards, ESG criteria, carbon footprint calculation methodologies, and sustainability reporting fundamentals.
- Employees participating in these programs will take active roles in relevant committees and strategic sustainability processes.
- This initiative represents an important step toward building TÜMOSAN's in-house sustainability expertise.

Starting from 2025, TÜMOSAN will engage in collaboration with an external consultancy firm to obtain specialized expertise in sustainability and climate risk management.

The technical proficiency of departments within the company will be regularly reviewed through internal evaluation processes, and employees will be offered opportunities to attend certified training programs, promoting a culture of continuous learning.

In areas where gaps are identified, employees will receive capacity-building support on topics such as climate risk identification and management, TSRS-compliant reporting processes, emission monitoring and reduction strategies, and energy efficiency practices.

Oversight of Strategy and Policies

At TÜMOSAN, the processes of defining, monitoring, and implementing strategic objectives are managed through the digitally integrated QDMS software system. Within the scope of the annual Management Review (MR) meetings, corporate goals are determined based on the decisions taken, and these goals are associated with relevant personnel within the system to enable performance tracking. This systematic structure ensures that strategic decision-making processes are conducted in a transparent and traceable manner.

In the context of sustainability, process-based risks within the company's corporate risk assessment mechanisms are analyzed using the PFMEA

(Process Failure Mode and Effects Analysis) method, coordinated by the Integrated Management Systems Department.

Effective information-sharing and collaboration mechanisms have been established among functions such as finance, production, logistics, supply chain, human resources, and engineering, enabling the partial integration of climate-related risks and opportunities into the company's strategic planning processes. Actions to be taken regarding these risks and opportunities are shaped within the scope of strategic decisions evaluated by the Board of Directors.

The Integrated Management Systems Policy, incorporated into TÜMOSAN's management framework, supports the company's sustainability principles and commitments. The policy covers key areas such as continuous improvement, environmental and stakeholder safety, protection of domestic production, regulatory compliance, occupational health and safety, information security, energy performance, and supply chain risk management. Management provides the necessary resources and information infrastructure to achieve the targets defined under this policy and monitors and supervises progress toward their realization.

Starting from 2025, the **Sustainability Policy** to be implemented will outline TÜMOSAN's commitments in the areas of environmental, social, governance (ESG), and climate-related issues through a holistic approach. The policy serves as a key reference document guiding the company's corporate strategy in areas such as climate change mitigation, resource efficiency, respect for human rights, ethical governance, and transparency. This policy, monitored at the Board of Directors level, covers all corporate operations and subsidiaries and is tracked through defined targets and performance indicators, with regular updates conducted at specific intervals. The Sustainability Policy is implemented across all business units, thereby enabling the continuous improvement of the company's ESG performance.



Strategy



Strategy

Global Outlook

Climate change, driven by rising global temperatures and an increase in extreme weather events, poses significant risks to agriculture, water resources, energy systems, and ecosystems. Türkiye faces high vulnerability to the impacts of drought, flooding, and irregular precipitation, which in turn create risks for food security and economic sustainability. At the same time, the transition to renewable energy, energy efficiency, and low-carbon technologies offers important opportunities for emission reduction, economic growth, and employment generation.

The Global Risks Report 2025 highlights that environmental and energy-related risks are becoming increasingly decisive in the short, medium, and long term. In particular, extreme weather events triggered by climate change, biodiversity loss, and ecosystem collapse are among the most critical risks of the coming decade. Meanwhile, energy supply and price fluctuations, combined with geopolitical and geoeconomic tensions, are further deepening global vulnerabilities. The report emphasizes that these risks are not only environmental, but also social and economic, as they can trigger instability and challenge global governance capacity. It calls for the development of urgent and collective climate and energy policies. Extreme weather events are ranked as the second most severe risk in the two-year outlook and emerge as the top-priority risk over the ten-year horizon.

Overview of the Agricultural Machinery Sector

Global climate change — through rising temperatures, irregular precipitation patterns, drought, and extreme weather events — directly affects agricultural production systems, thereby increasing uncertainties in the agricultural machinery sector. According to international scientific reports (IPCC, 2021), if global temperature rise exceeds 2°C, significant declines in agricultural productivity are expected. Studies conducted in Türkiye (Ministry of Agriculture and Forestry, 2021) similarly highlight the risks of water scarcity, drought, and yield reductions, particularly in the Mediterranean Basin. The agriculture sector also accounts for approximately 12–13% of global greenhouse gas (GHG) emissions, making it one of the main contributors to climate change. In this context, the agricultural machinery sector, in which TÜMOSAN operates, is exposed to various climate-related risks — such as reduced tractor demand, energy supply and price fluctuations, and compliance requirements with carbon regulations. At the same time, the sector holds strategic opportunities in the transition toward sustainable agriculture, including the development of climate-friendly technologies, energy-efficient machinery, low-emission engines, and digital farming applications.





Climate-Related Risks and Opportunities

TUMOSAN classifies sustainability-related risks and opportunities within short-, medium-, and long-term perspectives, integrating them into its strategic planning processes. Each risk and opportunity is evaluated based on its impact level, likelihood of occurrence, related business segment, and sectoral priorities, and is then subjected to strategic prioritization using impact-likelihood-time horizon matrices. The time horizons are structured in alignment with TUMOSAN's 2025–2029 Strategic Plan and the Turquality program.

The defined time horizons and potential financial impacts are outlined as follows:

Time Horizon		Definition
Short Term	0-1 year	Risks and opportunities that can be addressed through rapid operational actions and whose impacts can be observed in the short term.
Medium Term	1-3 year	Opportunities that require systemic transformation and process improvements and involve structural impacts.
Long Term	3-5 year	Risks and opportunities shaped by strategic governance, adaptation to external markets, and cultural transformation.

When categorizing the magnitude of financial impacts, TUMOSAN's net sales value has been used as the primary basis, in line with the company's operational scale. The audited and inflation-adjusted net sales (revenue) for 2024 amounted to **6,981,498.747 TL**. In determining the financial thresholds, historical profitability ratios, operational fluctuations, and the provisions of **TSRS 1.81** and **TSRS 1.B58** were taken into consideration. Accordingly, the financial impact magnitudes have been categorized as low impact (<279,259,949.88 TL), medium impact (279,259,949.88 TL – 488,704,912.29 TL), and high impact (>488,704,912.29 TL). This threshold framework enables the qualified and measurable assessment of material financial impacts.

Degree	Financial Impact (%)	Range(TL)
Low	Up to 4% of Net Sales	<279,259,949.88 TL
Medium	4% – 7% of Net Sales	279,259,949.88 TL – 488,704,912.29 TL
High	Above 7% of Net Sales	>488,704,912.29 TL



Climate-Related Risks

Climate Risk	Risk Area	Risk Type	Time Horizon	Potential Financial Impact	Likelihood Score (1-5)	Risk Management
Decrease in Tractor Demand Due to Extreme Weather Events (Drought, Frost, Irregular Rainfall, and Floods)	<ul style="list-style-type: none"> • Demand Fluctuations • Sales Volume • Sectoral Dependence 	Physical (Acute)	Short	Low	3	<ul style="list-style-type: none"> • Product diversification • Market monitoring • Sales strategies • Monitoring of agricultural support policies
			Medium	Low	4	
			Long	Low	4	
Compliance with Carbon Regulations (CBAM, ETS)	<ul style="list-style-type: none"> • Regulatory Compliance • Emission Costs • International Competitiveness 	Transition (Regulation/Policy)	Short	Low	3	<ul style="list-style-type: none"> • Investment in Stage V engine development • Establishment of carbon inventory • Energy efficiency projects
			Medium	Low	3	
			Long	Low	4	
Energy Supply and Price Fluctuations	<ul style="list-style-type: none"> • Energy Supply Continuity • Production Costs • Operational Efficiency 	Transition	Short	Low	3	<ul style="list-style-type: none"> • Planned solar power plant (SPP) investment plan • Digital monitoring systems • Improvement projects in energy-intensive lines
			Medium	Low	4	
			Long	Low	4	

Climate-Related Opportunities

Climate Opportunity	Opportunity Area	Opportunity Type	Time Horizon	Likelihood Score (1-5)
Increasing Demand for High-Performance Tractors Adapted to Climate Conditions	<ul style="list-style-type: none"> • New Market Opportunities • Consumer Expectations 	Transition – Market	Short	3
			Medium	4
			Long	5



Business Model and Value Chain

TÜMOSAN's business model is built upon a multi-sectoral structure shaped by a commitment to domestic and national production, supported by strong engineering capability and an integrated manufacturing infrastructure. The production of tractors, diesel engines, transmissions, and powertrains constitutes the company's core business areas, while its diversified product portfolio — addressing the defense, energy, agriculture, and industrial equipment sectors — ensures a balanced revenue base. The company's production facilities in Konya, R&D centers in Istanbul, and extensive sales and service network reinforce this multilayered business model.

TÜMOSAN's business model and value chain encompass an integrated structure extending from raw material procurement to casting and machining operations, and from R&D and assembly processes to product delivery, after-sales services, and customer feedback mechanisms. Each stage of this chain is influenced by physical and transition risks arising from climate change, directly shaping the company's strategic resilience.

In terms of **physical risks**, factors such as **droughts, floods, and irregular precipitation patterns constrain agricultural productivity, thereby reducing tractor demand** and creating risks for TÜMOSAN's business model and value chain in terms of sales volume and domestic market revenues. To mitigate this, the company adopts a product and sector diversification strategy, expanding its value chain beyond agriculture through generator systems, marine engines, material handling equipment, and defense industry projects. This approach balances the company's revenue portfolio against climate-induced demand fluctuations, securing the sustainability of its business model.

Among **transition risks**, compliance with **carbon regulations** plays a critical role in production processes and export capabilities. The integration of TÜMOSAN's tractor series with engines that are fully compliant with the

Compliance with EU Stage V emission standards and a localization rate exceeding 97% strengthen the company's capacity to align its carbon strategy across the value chain. These engines provide high standards in emission performance, fuel efficiency, and sustainability, enhancing the company's long-term competitiveness.

Energy supply and price fluctuations exert pressure on production costs within the value chain. To address this, TÜMOSAN has planned solar power plant (SPP) investments at its Konya facilities and implemented digital monitoring systems to improve the efficiency of energy-intensive processes. Under the ISO 50001 Energy Management System, initiatives to optimize electricity and natural gas consumption are ongoing. Furthermore, a comprehensive energy audit covering all factory operations will be completed in 2025, and the results will inform new projects to enhance energy efficiency and sustainability throughout the value chain.

As part of its long-term strategy, TÜMOSAN is integrating Industry 4.0 technologies through its **Smart Factory Transformation** program. By collecting and analyzing production data in real time, the company optimizes planning and resource management, thereby reducing operational risks and promoting sustainable value creation across the entire value chain.

Climate-adapted, high-performance tractors present a strategic opportunity for TÜMOSAN.

The development of 48–125 horsepower engines compliant with **Stage V emission** standards and their integration across different tractor series creates significant growth potential in both domestic and export markets. In addition, the development of specialized engine systems for the defense and marine segments further strengthens the company's technological capabilities and multi-sector presence.

Within TÜMOSAN's value chain, the main areas influenced by these climate-related risks and opportunities can be summarized as follows:



- **R&D:** The development of engines that comply with evolving regulations enhances the company's competitiveness and supports the creation of low-carbon solutions.
- **Distribution & Sales:** Expanding the number of export destinations and the distributor network allows TÜMOSAN to capture growth opportunities in international markets.
- **After-Sales Services:** Through processes implemented under the ISO 10002 Customer Satisfaction Management System, customer feedback is integrated into the product development cycle, enabling continuous customer-oriented improvements.

TÜMOSAN's business model demonstrates a resilient and adaptive structure against climate-related risks and opportunities. The integration of sustainability, R&D, circular economy practices, and digital transformation into the business model enables the proactive management of climate-related impacts at every stage of the value chain.



Strategy and Decision-Making

TÜMOSAN considers climate-related risks and opportunities as an integral part of its strategic orientation, shaping its decisions on investment planning, product development, resource allocation, and market expansion accordingly. The impacts of both physical and transition risks on operational continuity and long-term competitiveness are analyzed, and the resulting strategic actions are integrated into the company's sustainable growth objectives.

It is anticipated that the adverse **effects of climate change—particularly extreme weather events—on agricultural activities** may lead to a decline in tractor demand. TÜMOSAN manages this risk through diversification strategies. In addition to the tractor segment, the company has expanded its market portfolio with product groups serving diverse sectors such as generators, industrial engines, marine systems, material handling equipment, and powertrain systems for the defense industry. This approach enables the company to maintain resilience against climate-induced demand fluctuations.

Within the scope of **transition risks, carbon regulations** such as the European Green Deal and the planned Emissions Trading System (ETS) in Türkiye have the potential to directly affect TÜMOSAN's operations. In response, the company has developed a domestically produced Stage V engine family that fully complies with European emission standards. By integrating these engines—ranging from 48 to 125 horsepower—into all tractor series, TÜMOSAN has not only achieved regulatory compliance but also strengthened its access to European markets. Alignment with Stage V emission standards has been evaluated as a strategic step toward enhancing environmental sustainability and increasing export revenues.



In response to **energy supply and price fluctuations**, TÜMOSAN has been implementing measures to reduce operational costs through a planned Solar Power Plant (SPP) investment at its Konya production facility, the digitalization of energy management, and process-based energy efficiency projects. Process optimizations have been initiated in energy-intensive production lines, while performance criteria have been established under the ISO 50001 Energy Management System. Sub-meters installed at critical points of the plant enable detailed monitoring of machine- and system-based energy consumption. This approach not only facilitates the development of projects that ensure energy savings but also contributes to the reduction of greenhouse gas emissions. Similarly, natural gas consumption is monitored through sub-metering, inefficiencies are identified, and corresponding action plans are implemented. Moreover, a comprehensive energy audit covering the entire factory has been launched and is expected to be completed in 2025. Based on the audit results, additional improvement projects will be planned to enhance the efficiency and sustainability of energy use.

Climate-related opportunities also play a defining role in TÜMOSAN's growth strategy. In particular, the **increasing demand for high-performance tractors adapted to climate conditions** has guided the direction of R&D investments. In 2024, as a result of the work carried out at TÜMOSAN's R&D Center in Istanbul, the integration of Stage V engines across all tractor series was completed, and research on hybrid systems and alternative fuel solutions was intensified. In addition, dedicated projects are being conducted on fuel cells, marine engines, and defense industry applications, supporting long-term adaptation to climate scenarios.

In TÜMOSAN's strategic decision-making processes, climate-related risks and opportunities are analyzed through a multidimensional lens, encompassing not only technical evaluations but also customer demands, regulatory developments, and operational efficiency factors. Accordingly, a significant portion of the R&D budget is directed toward the development

of low-emission and environmentally friendly technologies. Furthermore, customer feedback is systematically collected under the ISO 10002 Customer Satisfaction Management System and integrated into product design, process improvement, and the expansion of sustainable solutions.

In conclusion, TÜMOSAN adopts a holistic, strategic approach to climate-related risks and opportunities, restructuring its business model in line with the transition to a low-carbon economy. Supported by its focus on energy transition, product diversification, domestic production capabilities, and expansion into international markets, this approach aims to ensure that the company builds a business model that is resilient to various climate scenarios.

Financial Position, Financial Performance, and Cash Flow



TÜMOSAN adopts an approach that aims to transform the climate risks it faces during the transition to a low-carbon economy into strategic opportunities. Accordingly, the company's financial planning and investment priorities have been redefined. As of 2024, the development of domestically produced engines compliant with Stage V emission standards has become a top priority within TÜMOSAN's R&D and investment agenda. This process holds strategic importance not only in terms of regulatory compliance but also in unlocking new market opportunities.

In parallel, technological investments have accelerated to expand product diversification in segments that are less sensitive to climate-related risks, such as generators, marine engines, and defense industry systems. This diversification strategy enhances operational flexibility and strengthens resilience against volatile market conditions..



In response to the risk of unforeseen increases in energy costs, TÜMOSAN has prioritized projects such as the planned solar power plant investment at its Konya production campus and the implementation of digital energy management systems. These investments not only aim to enhance environmental performance but also to control energy costs in the medium and long term.

Among TÜMOSAN's climate-related transition risks, carbon pricing and compliance with the European Green Deal stand out as factors that may have a significant impact on the company's future cash flows. With the upcoming implementation of Türkiye's Emissions Trading System (ETS), both direct and indirect carbon costs are expected to emerge. Currently, due to existing uncertainties, no definitive quantitative assessment of these potential impacts can be made. However, energy efficiency initiatives and full compliance with Stage V engine standards are considered structural measures to offset possible carbon-related costs.

Furthermore, TÜMOSAN aims to manage cash outflows sustainably through digital monitoring systems, process optimization in energy-intensive production lines, and investments in renewable energy, thereby mitigating the impact of rising energy prices on production expenses.

Extreme weather events—such as droughts, floods, and frosts—arising from climate change are among the physical risks that may lead to fluctuations in tractor demand, particularly in the agricultural sector. Such developments have the potential to directly affect sales volumes and revenue streams.

To balance this risk, TÜMOSAN pursues a product diversification strategy. Production and sales activities in energy and defense sectors increase income diversity and reduce dependence on a single market segment for cash inflows. This strategy also **strengthens the company's financial resilience and enhances its adaptive capacity in the face of climate challenges.**



Climate Resilience

As part of its 2024 strategic planning cycle, TÜMOSAN conducted scenario analyses to assess the potential impacts of climate-related risks and opportunities on the company's strategy, business model, and financial position. These analyses examined the possible effects of both physical and transition risks arising from climate change on the company's operations through a multi-dimensional approach, evaluated across short-, medium-, and long-term time horizons.

The data used in the scenario analysis were based on scientifically grounded and internationally recognized climate projections. In this context, publicly available databases and climate projection tools from institutions such as the Intergovernmental Panel on Climate Change (IPCC), WRI Aqueduct, World Bank Climate Portal, Climate Analytics, and the International Energy Agency (IEA) were utilized. The data include climate projections covering Türkiye and its surrounding regions, with a particular focus on the provinces where TÜMOSAN's operations are concentrated.

> Applied Scenarios

In assessing physical risks, the Representative Concentration Pathways (RCPs) developed by the Intergovernmental Panel on Climate Change (IPCC) were taken as the basis. The RCP2.6 scenario represents a low-emission pathway that limits global temperature rise to around 2°C, the RCP4.5 scenario corresponds to a medium-emission pathway, and the RCP8.5 scenario describes a high-emission pathway in which global temperature increase may exceed 4°C.

Transition risks were evaluated based on the International Energy Agency (IEA) scenarios STEPS, APS, and NZE, which respectively represent the continuation of current policies, the implementation of announced commitments, and a determined transition aligned with the net-zero target.

The analyses are used to enhance resilience against climate change and to make strategic decision-making processes more responsive to climate-related uncertainties. In this context, scenario analyses will be updated at least once a year and further refined in line with new scientific findings and policy developments.



Scenario Analysis

Risk of Reduced Tractor Demand Due to Extreme Weather Events (Drought, Frost, Irregular Rainfall, and Floods)			
Scenario	Description	Impact on TUMOSAN	Impact on Strategy and Business Model
RCP 2.6 (Orderly Transition)	According to the IPCC AR6 and G20 Atlas, if global warming is limited to 1.5°C, the average annual temperature increase in Türkiye will be around 1.7°C. Agricultural land may become 2–13% more suitable. However, existing water stress continues, and moderate increases in drought frequency and flood events are projected.	The agricultural sector may partially adapt to climate change. Demand risk remains low. However, as drip and modern irrigation technologies become more widespread, there may be a shift toward technically advanced tractors. Due to seasonal variations, tractor use may change in some regions.	Product development strategies may prioritize climate adaptation. Heat-tolerant, soil moisture sensor-integrated, and low fuel consumption models will come to the forefront. Climate-focused training programs and integrated sales strategies for farmers will gain importance.
RCP 4.5 (Moderate Transition)	The temperature increase reaches 2.0–2.5°C. According to IPCC and Türkiye CCDR reports, agricultural production risks intensify. By 2030, 75–95% of agricultural land becomes less favorable. WRI data indicate that provinces such as Konya, Manisa, and Denizli will face very high drought stress (>80%) by 2050.	Farmers exhibit cautious purchasing behavior. Unexpected extreme weather during harvest seasons may delay investment decisions. Drought suppresses regional tractor markets. Extreme weather increases maintenance and repair costs.	Regional campaigns and publicly supported financing options should be prioritized in high-risk areas. Alternatively, modular tractor models with lower maintenance costs can be offered. Flexibility of regional service networks should be enhanced.
RCP 8.5 (High Emission – Low Adaptation Scenario)	Warming reaches around 4°C. According to IPCC and WRI data, long-term agricultural productivity losses intensify. 86–100% of Türkiye’s agricultural land faces severe drought risk by 2100. Extreme heat, irregular rainfall, and rising sea levels worsen agricultural conditions.	There is a high likelihood of agricultural market contraction. Provinces such as Konya, Şanlıurfa, and Adana may no longer sustain agricultural activity. Tractor demand decreases sharply, leaving sales limited to secondary markets.	The company must undergo strategic transformation. Shifting focus toward non-agricultural markets (e.g., construction, municipal service vehicles) becomes necessary. Domestic sales may plateau, making business model diversification and resilience key priorities.

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Carbon Regulation Compliance (CBAM, ETS) Risk			
Scenario	Description	Impact on TÜMOSAN	Impact on Strategy and Business Model
RCP 2.6 / IEA NZE Orderly Transition Scenario	Under the IEA Net Zero 2050 and IPCC RCP 2.6 scenario, early and decisive policy actions are expected to raise carbon prices to 100–130 USD/tCO ₂ by 2030. In this context, mechanisms such as the EU Carbon Border Adjustment Mechanism (CBAM) and Emissions Trading Systems (ETS) expand globally, and carbon costs are reflected across the entire value chain.	Early adapters gain cost advantages and competitive strength. By investing in energy efficiency within carbon-intensive motor and tractor production processes, TÜMOSAN can reduce direct costs and strengthen export competitiveness.	Investments in low-carbon products and processes – such as Stage V engine development, renewable energy use, and ISO 14064-based emission management – become strategic priorities. Compliance with low-carbon supply chain and sustainability criteria in export markets becomes a core component of the business model.
RCP 4.5/ IEA APS Moderate Transition Scenario	In this gradual transition scenario, carbon prices remain between 50–80 USD/tCO ₂ by 2030, but stricter post-2040 policies accelerate emission reductions. Türkiye's alignment with CBAM and ETS becomes mandatory in the medium term	Without effective adaptation, TÜMOSAN may face competitive disadvantages in exporting motors and tractors to Europe due to rising carbon costs. Oversight and reporting pressure increase on Scope 1–3 emissions from production and supply chain activities.	Medium-term sustainability compliance investments, though increasing operational expenses, become necessary for long-term market presence. Supplier selection, logistics planning, and R&D focus on carbon-footprint optimization gain importance.
RCP 8.5/ IEA STEPS High-Emission / Weak Transition Scenario	Inadequate transition measures keep carbon prices low in the short term. However, after 2040, sudden and strict policy interventions drive prices up sharply. In Türkiye and EU export markets, regulatory shocks and volatility increase.	Faced with late but rapidly implemented carbon-pricing policies, TÜMOSAN may experience sudden cost increases, shifting customer demands, and financing challenges. Production planning and investments become exposed to unpredictable market pressures.	Delayed adaptation leads to higher transformation costs. TÜMOSAN's value chain faces urgent restructuring needs. The business model must be redefined through aggressive investment in low-carbon technologies, new market exploration, and access to climate finance.

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Energy Supply and Price Volatility Risk			
Scenario	Description	Impact on TÜMOSAN	Impact on Strategy and Business Model
RCP 2.6 / IEA NZE Orderly Transition Scenario	In this scenario, aligned with the Paris Agreement targets, a net-zero pathway by 2050 is adopted. According to the IEA NZE (2021) roadmap, electricity generation shifts rapidly away from fossil fuels, reaching 90% renewables. Investments in solar and wind accelerate while the role of natural gas declines. The electricity grid is modernized, energy efficiency increases, and overall energy security improves.	Price volatility in electricity generation decreases, enhancing energy security. However, investment costs may rise during the transition period. TÜMOSAN's production facilities will gain access to more stable, low-emission power sources thanks to a higher share of renewables. Yet, short-term industrial carbon-pricing schemes and efficiency targets will require additional energy-transition investments.	TÜMOSAN should enhance energy-efficiency investments and gradually shift to renewable sources. Long-term power-purchase agreements (PPAs) for green energy will reduce carbon costs. Energy-optimization projects should focus on reducing consumption; automated systems with low energy demand should be prioritized for test lines.
RCP 4.5/ IEA APS Moderate Transition Scenario	In this scenario, the implementation of carbon pricing and climate policies progresses more slowly. According to the IEA APS (2023) scenario, global emissions are reduced by only 40% by 2050. In Türkiye, natural gas continues to hold a significant share in electricity generation. Due to droughts and high summer temperatures, hydropower output decreases while the demand for imported natural gas increases. LNG prices remain elevated and unstable after 2022, which may heighten cost risks for energy-intensive industrial processes. Natural gas prices could fluctuate amid global crises, and electricity prices exhibit high volatility.	TÜMOSAN's production facilities may be exposed to high electricity costs. In particular, electricity expenses in foundry operations and test benches are expected to rise. Natural gas-based processes (e.g., heat treatment furnaces and heating systems) are subject to direct cost pressure. To maintain its competitive strength, TÜMOSAN needs to implement protective strategies against increasing energy costs.	TÜMOSAN should review its processes to reduce energy consumption and expand the implementation of energy monitoring systems. A transition toward electrically powered systems should be planned instead of natural gas-based ones, and production flexibility should be utilized to lower costs during peak hours. A target may be set to source approximately X% of total electricity consumption from renewable energy sources.
RCP 8.5/ IEA STEPS High-Emission / Weak-Adaptation Scenario	Dependence on fossil fuels persists, and climate policies remain insufficient. The increasing frequency of extreme weather events weakens energy infrastructure. Türkiye's reliance on imported natural gas continues, while price shocks in the LNG market intensify pressure on the industrial sector. The decline in water resources reduces hydropower capacity, making electricity shortages and cost increases a common occurrence.	TÜMOSAN faces a risk to its energy supply security. Sudden production interruptions and rising costs may occur, leading to increased fluctuations that impact profitability. Since foundry and engine testing processes are highly energy-intensive, production capacity planning may be disrupted.	For TÜMOSAN, this scenario necessitates urgent adaptation strategies. Generator systems, battery-supported energy storage, and microgrid applications should be prioritized for critical production lines. R&D projects aimed at reducing energy intensity should be encouraged, and business model adjustments—such as service-based sales or “power-by-the-hour” models—should be considered.

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3. Ministry of Energy and Natural Resources. (2023). Türkiye Renewable Energy Outlook
4. IPCC. (2023). Climate Change 2023: Synthesis Report. Summary for Policymakers.
5. Bruegel. (2024). Identifying Areas for EU-UK Energy and Climate Cooperation.
6. World Bank. (2022). Türkiye: Country Climate and Development Report (CCDR)

Risk Management



Risk Management

Risk and Opportunity Identification Process

TÜMOSAN has integrated the process of identifying climate-related risks and opportunities into its corporate risk management framework. This process is carried out through department-based risk assessment meetings and evaluated in collaboration with managers from each unit. The systematic approach – comprising identification, assessment, and prioritization steps – is supported by existing procedures such as FMEA (Failure Mode and Effects Analysis), Occupational Health and Safety (OHS) Risk Assessment, and Environmental Risk Assessment, which are implemented across all production and administrative operations. To identify climate-related risks, a Climate Risk and Opportunity Inventory has been established, taking into account qualified data obtained from the following sources:

- Meteorological trend analyses and climate scenarios,
- Indicators of external dependency and geopolitical risks in the supply chain and production processes,
- Regulations issued by relevant public authorities and sectoral emission targets,
- Feedback and on-site observations gathered from stakeholders,
- Corporate environmental and financial performance data.

The risks and opportunities identified based on these data are evaluated and prioritized using the following multi-criteria system:

- **Financial Impact Potential:** Effects on cash flows, investment payback periods, and cost-benefit balance,
- **Regulatory Compliance Requirement:** Legal obligations of the risk in line with national legislation and international commitments,
- **Alignment with Strategic Goals:** Degree of consistency with TÜMOSAN's 2025–2029 Strategic Plan,
- **Operational Scope:** The extent to which the risk affects different areas of production,
- **Stakeholder Sensitivity:** Perceived impact on society, employees, investors, and customers.

For each risk and opportunity, impact-likelihood matrices are developed based on the above criteria, and corresponding action plans are formulated accordingly. Through the implementation of FMEA (Failure Mode and Effects Analysis), the effects of prioritized risks are minimized, while identified opportunities are leveraged within innovation and investment planning processes to create strategic advantages.



Climate Risk Assessment Methodology

At TÜMOSAN, each climate-related risk is analyzed through a two-dimensional assessment system:

- **Likelihood Score (1–5):** Represents the probability of the risk materializing, determined by considering TÜMOSAN's historical operational data as well as scientific climate projections such as the IPCC's RCP 4.5 and RCP 8.5 scenarios.
- **Impact Score (1–5):** Reflects the potential implications of the identified risk on TÜMOSAN's financial performance, reputation management, regulatory compliance processes, operational continuity, and environmental impacts.

The combined evaluation of these two scores allows TÜMOSAN to identify priority risks and shape related strategic actions. During the assessment process, sector-specific metrics outlined in Annex Volume 50 – Industrial Machinery & Goods and Annex Volume 9 – Iron & Steel Producers of TSRS 2 were also taken into account, in alignment with the SASB industry guidance. Based on this prioritization framework, the findings were scored using TÜMOSAN's defined financial impact thresholds, enabling the prioritization of climate-related risks and opportunities.

Likelihood	Score	Description
Very High	5	The event almost certainly occurs every year.
High	4	Frequently observed; likely to occur once every few years.
Moderate	3	May occur occasionally; roughly once every ten years.
Low	2	Rare; less than once in ten years.
Very Low	1	Extremely rare; once every twenty years or less.

Degree	Financial Impact (%)	Range (TRY)
Low	4% of net sales and below	< 279,259,949.88 TRY
Moderate	4% – 7% of net sales	279,259,949.88 TRY – 488,704,912.29 TRY
High	Above 7% of net sales	> 488,704,912.29 TRY



Metrics and Targets



Metrics and Targets

Industry-Specific Metrics

Industrial Machinery & Goods (TÜMOSAN Motor)

Standard Code	Topic	Metric	Unit	2024
RT-IG-130a.1	Energy Management	Total energy consumed	Gigajoule (GJ)	21,688.28 GJ natural gas 24,143.69 GJ electricity
		Percentage of grid electricity	Percent (%)	52.67%
		Percentage of renewable energy	Percent (%)	-
RT-IG-410a.1	Fuel Economy & Emissions During Product Use Phase	Sales-weighted fleet fuel efficiency for medium- and heavy-duty vehicles	Litres per 100 ton-km	N/A
RT-IG-410a.2		Sales-weighted fuel efficiency for off-road equipment	Litres per hour	N/A
RT-IG-410a.3		Sales-weighted fuel efficiency for stationary generators	Kilojoules per litre	N/A
RT-IG-410a.4		Marine diesel engines	Grams per kilojoule	N/A
		Locomotive diesel engines	Grams per kilojoule	N/A
		On-road medium- and heavy-duty engines	Grams per kilojoule	N/A
		Other off-road diesel engines: sales-weighted nitrogen oxides (NOx) emissions	Grams per kilojoule	N/A
	Other off-road diesel engines: particulate matter (PM) emissions	Grams per kilojoule	N/A	
RT-IG-000.A	Activity Metrics	Number of units produced by product category	Number	Table Note 1
RT-IG-000.B		Number of employees	Number	635 (including subsidiaries)

1. TÜMOSAN has diversified its operations to respond to the needs of different sectors and customer segments. In addition to tractors, agricultural equipment, industrial engines, material handling machines, and spare parts, the company manufactures a wide range of products including after-sales services, military subsystems, military platforms, and marine subsystems.



Iron & Steel Producers (TÜMOSAN Döküm)

Standard Code	Topic	Metric	Unit	2024 data
EM-IS-110a.1	Greenhouse Gas Emissions	Gross Scope 1 emissions	Metric tons (t) CO ₂ -e	2,634
		Percentage covered under emission-limiting regulations	Percentage (%)	See Table Note 1
EM-IS-110a.2		Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions and emission-reduction targets, and analysis of performance against those targets	Discussion and Analysis	See Table Note 2
EM-IS-130a.1	Energy Management	Total energy consumed	Gigajoules (GJ)	503,572.80 GJ Natural Gas Consumption 16,602.72 GJ Electricity Consumption Total: 520,175.52 GJ
		Percentage grid electricity	Percentage (%)	3.19%
		Percentage renewable energy	Gigajoules (GJ)	-
EM-IS-130a.2		Total fuel consumed	Percentage (%)	503,573.45 GJ
		Percentage coal	Percentage (%)	-
		Percentage natural gas	Percentage (%)	99.99%
	Percentage renewable energy	Percentage (%)	-	



EM-IS-140a.1	Water Management	Total water withdrawn	Thousand cubic meters (m ³)	3,069
		Total water consumed	Thousand cubic meters (m ³)	3,069
		Percentage of each in regions with High or Extremely High Baseline Water Stress	Percentage (%)	The factory's water demand is met from Konya Province. According to WRI Aqueduct data, over 80% of Konya is classified as a 'extremely high-risk' area for water stress.
EM-IS-430a.1	Supply Chain Management	Discussion of the process for managing iron ore and coking coal sourcing risks arising from environmental and social issues	Discussion and Analysis	N/A
EM-IS-000.A	Activity Metrics	Within crude steel production: 1. Percentage of basic oxygen furnace steelmaking 2. Percentage of electric arc furnace steelmaking	Metric tons (t), Percentage (%)	N/A
EM-IS-000.B		Total iron ore production	Metric tons (t)	N/A
EM-IS-000.C		Total coking coal production	Metric tons (t)	N/A

1. The metric will be updated once the secondary legislation of the Turkish Emissions Trading System (ETS) and the National Allocation Plan are published, based on the facility's inclusion status and allocation scope.
2. TÜMOSAN Casting initiated energy efficiency audit studies in 2023. Within the scope of the project, measurements and inspections were carried out at various points of the factory, and forward-looking energy saving targets and investment plans were established and implemented accordingly. In relation to Scope 1 emissions, natural gas savings were achieved through the implementation of the "Air Curtain Application for Eliminating Thermal Leakages in the Core Drying Furnace" and the "Core Drying Furnace Flue Gas Recuperator Project." Energy efficiency and conservation activities continue within the factory operations.



Climate-Related Metrics and Targets

Greenhouse Gas (GHG) Emissions

Metric	Unit	2024 Data
Scope 1 Greenhouse Gas Emissions (tCO ₂ -e)	(ton CO ₂ -e)	4,672.84
Scope 2 Greenhouse Gas Emissions (Location-Based)	(ton CO ₂ -e)	2,270.71
Scope 2 Greenhouse Gas Emissions (Market-Based)	(ton CO ₂ -e)	2,212.23

The total greenhouse gas (GHG) emissions resulting from TÜMOSAN's operations in 2024 were calculated as 9,064.78 metric tons of CO₂ equivalent (tCO₂-e). Of this amount, 4,672.84 tons is within Scope 1 (direct emissions) and 4,482.94 tons is within Scope 2 (indirect electricity-related emissions). For Scope 2 emissions, both location-based and market-based methodologies were applied. In the location-based calculation, average carbon intensity factors for Turkey's national electricity grid were used. In the market-based approach, TÜMOSAN's specific procurement contracts and the emission factors reported by respective electricity suppliers were taken as a basis. Since the company does not currently hold a renewable energy certificate (e.g., I-REC), the market-based emissions do not reflect any renewable energy advantages.

Climate-Related Targets

Strategic targets at TÜMOSAN are defined through a participatory planning process with contributions from the Strategy Development Board, the Integrated Management Systems unit, and other relevant

departments. Specific performance indicators are established for each target, responsibilities are assigned, and activities are tracked through a three-tier monitoring system. Progress against targets is reported to senior management via the quality management representative and is reviewed – together with justifications for any required target adjustments – at year-end Management Review (YGG) meetings, after which approved changes are integrated into the strategic plan.

The target to improve energy efficiency is a strategic measure adopted to mitigate TÜMOSAN's exposure to the energy supply and price volatility risk. Rising electricity prices and carbon regulation pressures increase production costs. Investments aimed at enhancing energy efficiency are intended to reduce these transition risks, support cost control and, at the same time, lower greenhouse gas emissions.



Uncertainties in agricultural production and changes in customer demand caused by climate change may affect the market adaptability of existing products. The target of increasing product diversity enables TÜMOSAN to diversify its business model by leveraging the opportunity to develop more efficient and climate-resilient machinery. Diversification into the defense, energy, and construction sectors serves as a strategy that strengthens resilience against physical risks.

Target Title	Target	Metric	2024 Status	Target Year	Monitoring Period	Progress Level
Improving Factory Energy Efficiency	Minimum saving of 100,000 kWh	Total amount of energy saved	-	2029	Annual	Ongoing
Increasing Product Diversity	Expanding diversity across agricultural machinery, engine types, and defense industry categories	Number of prototypes produced, number of units manufactured	-	2029	Annual / End of Activity	Ongoing



Appendix



Independent Limited Assurance Statement



Bağımsız
Denetim ve
Yeminli Mali
Müşavirlik A.Ş.



Bağımsız
Denetim ve
Yeminli Mali
Müşavirlik A.Ş.



Professional Standards Applied

We performed a limited assurance engagement in accordance with Standard on Assurance Engagements 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information and, in respect of greenhouse gas emissions included in the Sustainability Information, in accordance with Standard on Assurance Engagements 3410 Assurance Engagements on Greenhouse Gas Statements, issued by POA.

Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the Ethical Rules for Independent Auditors (including Independence Standards) (the "Ethical Rules") issued by the POA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. Our firm applies Standard on Quality Management 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. Our work was carried out by an independent and multidisciplinary team including assurance practitioners, sustainability and risk experts. We used the work of experts, in particular, to assist with determining the reasonableness of Group's information and assumptions related to climate and sustainability risks and opportunities. We remain solely responsible for our assurance conclusion.

Summary of the Work We Performed as the Basis for our Assurance Conclusion

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Sustainability Information is likely to arise. The procedures we performed were based on our professional judgment. In carrying out our limited assurance engagement on the Sustainability Information, we:

- Inquiries were conducted with the Group's key senior personnel to understand the processes in place for obtaining the Sustainability Information for the reporting period
- The Group's internal documentation was used to assess and review the information related to sustainability;
- Considered the presentation and disclosure of the Sustainability Information.
- Through inquiries, obtained an understanding of Group's control environment, processes and information systems relevant to the preparation of the Sustainability Information, but did not evaluate the design of particular control activities, obtain evidence about their implementation or test their operating effectiveness;

Summary of the Work We Performed as the Basis for our Assurance Conclusion (Continued)

- Evaluated whether Group's methods for developing estimates are appropriate and had been consistently applied, but our procedures did not include testing the data on which the estimates are based or separately developing our own estimates against which to evaluate Group's estimates;
- Obtained understanding of process for identifying risks and opportunities that are financially significant, along with the Group's sustainability reporting process.

The procedures in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Yeditepe Bağımsız Denetim ve Yeminli Mali Müşavirlik A.Ş.
(Associate Member of Praxity AISBL)



Hasan Ersin
Partner
İstanbul, 13 October 2025



TSRS Disclosure Table

TSRS Section	TSRS 2 Provision	Brief Description & Key Idea	Report Section
Governance	6(a)	The undertaking defines the governance processes, controls, and procedures it uses to monitor and manage climate-related risks and opportunities. It identifies which body or individuals are responsible, describes their roles, authorities, and competencies, specifies how frequently they are informed, and explains how strategy and risk-management processes are integrated.	Governance
	6(a)-i	Specifies how responsibilities for climate-related risks and opportunities are reflected in the role descriptions, authorities, and policies of the relevant body or individuals.	Board Responsibilities and Oversight / Sustainability Governance
	6(a)-ii	Explains whether the body or individuals have the authority and competence to oversee strategies against climate-related risks and opportunities, and how such competencies will be strengthened if necessary.	Competence and Skills Assessment
	6(a)-iii	Describes how and how frequently the body or individuals are informed about climate-related risks and opportunities.	Board Responsibilities and Oversight
	6(a)-iv	Explains how the body or individuals consider climate-related risks and opportunities when overseeing the entity's strategy, major operations, risk management, and related policies, and how these considerations are incorporated into decision-making.	Review of Strategy and Policies
	6(a)-v	Describes how relevant performance metrics are included in remuneration policies (e.g., senior executive pay) and how progress against climate-related targets is tracked and reflected in compensation.	Board Responsibilities and Oversight
	6(b)-i	Explains the oversight processes (e.g., senior-level committees) used to monitor climate-related risks and opportunities, and how oversight is structured at higher organizational levels.	Board Responsibilities and Oversight
	6(b)-ii	Describes the controls and procedures used by management to support the monitoring of climate-related risks and opportunities, and explains how these are integrated into relevant functions (e.g., internal audit, operations, finance, legal, etc.).	Review of Strategy and Policies



TSRS Section	TSRS 2 Provision	Brief Description & Key Idea	Report Section
Strategy	9(a)	The undertaking discloses information that enables users to understand issues that could reasonably be expected to affect the business in the future when identifying climate-related risks and opportunities. It specifies which risks/opportunities are considered material.	Strategy / Climate-related Risks and Opportunities
	9(b)	Describes existing and expected impacts of climate-related risks and opportunities on the undertaking's business model and value chain, including which stages (geographical / operational) are most affected.	Strategy / Business Model and Value Chain
	9(c)	Explains how climate-related risks and opportunities affect decision-making and strategy. It identifies which strategic actions (e.g., capital allocation, investment, resource planning) and targets or policies are adopted.	Strategy / Strategic Planning and Decision-Making
	9(d)	Describes how climate-related risks and opportunities are integrated into financial planning and the current / expected effects on financial position, performance, and cash flows over the short, medium, and long term.	Strategy / Financial Position, Performance and Cash Flow
	9(e)	Explains how the undertaking assesses the resilience of its strategy to climate-related risks and opportunities under various scenarios, and how short-, medium-, and long-term strategic choices are shaped accordingly.	Strategy / Climate Resilience; Governance
Strategy / Climate-Related Risks and Opportunities	10(a), 10 (b)	Defines climate-related risks and opportunities and specifies whether they are physical (e.g., drought, heat stress) or transition-related (e.g., policy changes, carbon pricing, market shifts).	Strategy / Climate-related Risks and Opportunities
	10(c)	The undertaking discloses when (short, medium, or long term) the identified risk or opportunity is expected to materialize and explains how these time horizons are linked to the entity's strategic planning and decision-making cycles.	Strategy / Climate-related Risks and Opportunities
	10(d)	Explains how and why the time horizons (short, medium, long term) were determined and how these definitions are integrated into strategic decision-making.	Strategy / Climate-related Risks and Opportunities
	11	When identifying risks / opportunities, considers current conditions, past events, future expectations, and supported estimates; uses data that are reasonable and supportable without undue cost or effort.	Risk Management / Strategy / Climate Resilience / Governance
	12	Refers to the TSRS S2 Sector-specific Implementation Guidance when determining relevant disclosure topics and uses it as appropriate.	Risk Management



Strategy / Business Model and Value Chain	13(a)	The business describes the current and anticipated effects of climate-related risks and opportunities on its business model. It explains which parts of the value chain and which operations or stages (e.g., agriculture, production, etc.) are affected, and to what extent these climate-related risks and opportunities influence the business.	Strategy / Business Model and Value Chain
	13(b)	The business identifies where in its business model and value chain the climate-related risks and opportunities are concentrated. It describes the geographical distribution of risks and opportunities, the types of assets most exposed, and which divisions are more vulnerable or more advantaged.	Strategy / Business Model and Value Chain
Strategy / Strategy and Decision Making	14(a)	The business discloses the strategic responses it has made or plans to make to address climate-related risks and opportunities. The disclosure includes both current and expected direct or indirect mitigation or adaptation measures, transition plans, and the methods used to achieve targets.	Strategy / Strategy and Decision-Making
	14(a)-i	The business explains the current and expected changes in its business model (e.g., resource allocation, investments, etc.) undertaken to address climate-related risks and opportunities.	Strategy / Strategy and Decision-Making
	14(a)-ii	The business describes the current and expected direct mitigation or adaptation actions (e.g., process improvements, facility relocations, product redesign, etc.).	Strategy / Climate Resilience
	14(a)-iii	The business outlines the "current and expected indirect mitigation or adaptation actions" (e.g., engagement with suppliers, customers, or other stakeholders).	Strategy / Business Model and Value Chain
	14(a)-iv	The business presents its "transition plan" toward a lower-carbon economy, explaining the assumptions on which it is based and the dependencies supporting progress toward the targets.	Strategy / Strategy and Decision-Making, Financial Position, Financial Performance and Cash Flow
	14(a)-v	The business explains how it plans to achieve its climate-related targets, including the metrics and implementation plans related to greenhouse-gas emissions reductions.	Climate-Related Targets Strategy / Strategy and Decision-Making, Financial Position, Financial Performance and Cash Flow
	14(b)	The business describes how it has obtained or plans to obtain the resources needed to implement the actions referred to in 14(a) (e.g., financing, investment, borrowing).	Financial Position, Financial Performance and Cash Flow
	14(c)	The business reports on progress against previously announced plans, using quantitative and/or qualitative information. It provides updates on the measures taken under the climate strategy and on progress toward achieving its targets.	Climate-Related Metrics and Targets



TSRS Section	TSRS 2 Provision	Brief Description & Key Idea	Report Section
Risk Management	25(a)	The business explains its policies and processes for identifying, assessing, prioritizing, and monitoring climate-related risks.	Risk Management
	25(a)-i	The business describes the inputs and parameters used in the process (e.g., data sources, the scope of operations included, etc.).	Risk Management
	25(a)-ii	The business explains whether it uses scenario analysis when identifying climate-related risks, and describes how it is applied.	Risk Management
	25(a)-iii	The business describes how it evaluates the nature, likelihood, and magnitude of climate-related risks (e.g., using qualitative or quantitative criteria, thresholds, or indicators).	Risk Management
	25(a)-iv	The business explains how it prioritizes climate-related risks relative to other types of risks (e.g., financial, legal, reputational).	Risk Management
	25(a)-v	The business explains how it monitors climate-related risks (e.g., monitoring frequency, relevant KPIs, and alert mechanisms).	Risk Management
	25(a)-vi	The business discloses whether any changes have been made to its risk identification or monitoring processes compared with the previous reporting period, and explains the nature of such changes.	Risk Management
	25(b)	The business explains its processes for identifying, assessing, prioritizing, and monitoring climate-related opportunities. It also describes whether and how these processes are integrated with the management of climate-related risks.	Risk Management
	25(c)	The business explains how the processes for identifying, assessing, prioritizing, and monitoring climate-related risks and opportunities are integrated into the general risk management system, and describes how this integration is communicated within the organization.	Risk Management



TSRS Section	TSRS 2 Provision	Brief Description & Key Idea	Report Section
Climate-Related Metrics	29(a)-i	The business measures and reports its greenhouse gas (GHG) emissions produced during the reporting period in accordance with the GHG Protocol Corporate Standard, and discloses absolute GHG emissions (Scopes 1, 2, and 3) in metric tons of CO ₂ equivalent.	GHG Emissions Reporting Boundary
	29(a)-ii	In emission accounting, the business follows the GHG Protocol: Corporate Accounting and Reporting Standard (2004). If another methodology is applied, the rationale for using it is explained	GHG Emissions Reporting Boundary
	29(a)-iii	The business describes the approach, inputs, and assumptions used to measure its GHG emissions, and explains the reasons for selecting these methods as well as any changes over time.	GHG Emissions Reporting Boundary
	29(a)-iv	Scope 1 and Scope 2 GHG emissions are consolidated at the group level (for entities applying TFRS, this includes the parent company and consolidated subsidiaries). The business distinguishes these from other investments not included in consolidation (such as associates and joint ventures).	GHG Emissions Reporting Boundary
	29(a)-v	Scope 2 GHG emissions are calculated on a “location-based” basis. The business also provides information on any contractual instruments (e.g., energy certificates) required for users to understand market-based emissions.	GHG Emissions Reporting Boundary
	29(a)-vi	When calculating Scope 3 emissions, the business considers the categories defined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011). For financial institutions, this includes Category 15—financed emissions—covering activities such as asset management, commercial banking, and insurance.	GHG Emissions Reporting Boundary
	29(b)	The business discloses the amount and percentage of assets or business activities exposed to climate-related transition risks, meaning those vulnerable to transition factors	Strategy / Financial Position, Financial Performance and Cash Flow
	29(c)	The business discloses the amount and percentage of assets or business activities exposed to climate-related physical risks	Strategy / Financial Position, Financial Performance and Cash Flow
	29(d)	The business discloses the amount of capital expenditure, financing, or investment allocated to address climate-related risks and opportunities.	Strategy and Decision-Making



TSRS Section	TSRS 2 Provision	Brief Description & Key Idea	Report Section
İklim ile ilgili Metrikler	29(e)	The business discloses the amount of capital expenditure, financing, or investment allocated to address climate-related risks and opportunities.	Strategy and Decision-Making
	29(f)	The business explains whether it applies an internal carbon price and how it is applied (e.g., in investment decisions, transfer pricing, or scenario analysis). It also discloses the carbon price assigned per metric ton of greenhouse gas emissions.	Strategy / Climate Resilience
	29(g)	The business discloses whether and how climate-related matters are incorporated into executive remuneration. It also explains how these matters are reflected in current-period financial statements and the extent to which senior management compensation is linked to climate-related performance.	Governance / Board Responsibilities and Oversight
	30	The business uses all reasonable and supportable information available at the reporting date to prepare the disclosures required under paragraphs 29(b)–(d), without incurring undue cost or effort.	
	31	When preparing the disclosures required under paragraphs 29(b)–(g), the business refers to paragraphs B64–B65 for additional implementation guidance.	
	32	The business discloses sector-specific metrics that reflect its business model, activities, or shared characteristics within its sector. In selecting these metrics, the business considers the applicability of the TSRS S2 Sector-Based Application Guidance.	Climate-Related Metrics and Targets



TSRS Section	TSRS 2 Provision	Brief Description & Key Idea	Report Section
İklimle İlgili Hedefler	33- 33(a) 33(b) 33(c) 33(d) 33(e) 33(f) 33(g) 33(h)	The business defines all quantitative and qualitative climate-related targets, including greenhouse gas (GHG) emissions reduction targets, as well as any mandatory targets required by regulation. For each target, the business discloses the metric used, the objective and scope (unit/geography), the applicable period or base year, interim milestones, and whether the target is absolute or intensity-based. It also explains how the target has been shaped by the most recent international agreements and commitments.	Climate-Related Metrics and Targets
	34- 34(a) 34(b) 34(c) 34(d)	The business explains how each target has been set and reviewed, and which measures and methodologies are used to monitor progress toward the targets. If targets have been modified, the business discloses the reasons for such changes.	Climate-Related Metrics and Targets
	35	The business provides information on its performance against each climate-related target and analyzes performance trends or variations over time.	Climate-Related Metrics and Targets
	36- 36(a) 36(b) 36(c) 36(d) 36(e)	The business transparently discloses the scope of each GHG emissions reduction target (including Scopes 1, 2, and 3), its gross and/or net structure, sectoral alignment, and—where applicable—details of any carbon credit use, verification programs, or offsetting methodologies.	Climate-Related Metrics and Targets
	37	The business ensures that the metrics used to monitor progress toward its climate-related targets are consistent with the requirements of TSRS 1 and are applicable across sectors. It also considers the use of sector-specific and cross-sectoral, criteria-based indicators.	Climate-Related Metrics and Targets



albayrak

TÜMOSAN is a subsidiary of the **Albayrak Group**.

www.albayrak.com.tr



Headquarters

Maltepe Neighborhood
Londra Asfaltı Street No: 28/1
Topkapı 34010 Zeytinburnu / İSTANBUL



Factory

Büyükkayacık Neighborhood
Aksaray Çevre Yolu Street No: 7/1
Selçuklu / KONYA



info@tumosan.com.tr



www.tumosan.com.tr



Customer Service Line



444 1975

Greenix

Reporting and Design Consulting

İstanbul Office: Cemal Ulusoy Street
No: 57 A Plaza Bahçelievler / İstanbul/ Türkiye

info@greenix.com.tr

www.greenix.com.tr

