SUSTAINABILITY REPORT

2021

ONE NOTCH UP IN THE FUTURE OF MOBILITY

KARSAN

CONTENTS

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GRI 102-45, GRI 102-48

ABOUT THE REPORT

While the concept of sustainability is important for every organization and individual, it has a much greater meaning for a company operating in the automotive industry. As Karsan Otomotiv Sanayisi ve Ticaret A.Ş., which designs the mobility of today and the future, sustainability is at the center of our focus. In our report, Karsan production activities are evaluated in line with environmental, social and governance sustainability principles. As Karsan, we have prepared our Sustainability Report in order to transparently share with our stakeholders and the public the strategies, activities and current developments we have developed around the concept of sustainability. This report, which we have published in line with our sustainability approach covering social, economic and environmental dimensions, contains detailed information about the strategies we have created in the field of sustainability, the innovative solutions we produce, the management systems we have developed, the value we give to our employees, our social responsibility projects and our goals.

Through our report, which we will publish for the 2nd report this year, we voluntarily share our sustainability balance sheet with our stakeholders and the public by evaluating it in accordance with the Core option of the GRI standards, an international initiative. We also take care to include the requirements of the United Nations Global Compact, of which we are a signatory, in the report.

Our report covers our activities, production and all assets within our organization for the period January 1, 2021 - December 31, 2021. In addition, we present our sustainability priorities, our contributions to the Sustainable Development Goals, and our targets, which reflect Karsan's corporate policies and working principles and were determined with the participation of our stakeholders.

Message From The Chairman of The Board of Directors

Dear Stakeholders,

Today, one of our goals is to position our company, which aims to become a global brand in the automotive sector that produces Turkey's high-tech mobility solutions, as an exemplary organization with its entire business model. In the business model of today and the future, the clarity that the organization that serves sustainable development goals will exist is much more evident in today's conditions.

If we take a look at the developments of 2021, our reporting period, we can see that climate change and the environmental impacts such as extreme weather events, drought, and reduction in water resources that the world faced showed the importance of the concept of sustainability. Disruptions in the supply chain, which increased with the Covid-19 pandemic, negatively affected many sectors, including automotive. For these reasons, the increasing population pressure in cities and the changing needs of customers have started to shape the automotive industry, just like the rest of the world. While the demand for transportation models with reduced environmental impact has started to increase, the contraction in market share due to the pandemic has accelerated the transformation of sustainable transportation technologies. As Karsan, we are proud to be the pioneer of environmentally friendly mobility solutions and contribute to the economy of our country by adopting the vision of "One Step Ahead in the Future of Mobility" both nationally and internationally.

We proved that we are one of the organizations capable of changing the course of the Turkish automotive industry by closing 2021 with a turnover of over TL 2 billion, with 70% exports and 30% growth. With the international strategic partnership agreements we have made, we produce 100% electric vehicles that respond to the welfare of society and focus on the social and environmental needs of the era. As a result, we are pleased to have realized 90% of Turkey's electric minibus and bus exports under the Karsan name in the last 3 years.

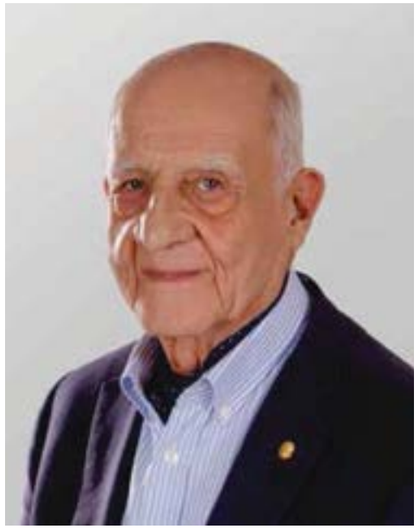
We continue to develop innovative and effective strategies every day for a sustainable universe and continue to produce sustainable transportation solutions that will carry society forward. In this direction, while bringing a breath of fresh air to public transportation with the innovation-oriented designs we have developed in our R&D center, we have managed to reduce our carbon footprint by approximately 30% thanks to the environmentally friendly products we produce on the way to reaching the net zero carbon target. Our efforts to reduce our carbon emission emissions for sustainability were evaluated within the scope of the CDP Climate Change Program in 2021 and we were awarded a "B-" score by meeting the global average target in our first application. Thanks to our R&D Center, we did not neglect to minimize the greenhouse gas emissions that will occur as a result of the use of our products, as well as reducing our emissions resulting from our own activities. Through our efforts throughout the year, we achieved an energy improvement rate of 6% and reduced our energy consumption per production unit by 13% from 20 GJ/product in 2020 to 17.4 GJ/product unit.

One of the global steps we took in the field of sustainability was Karsan becoming a signatory to the United Nations Global Compact Platform in November 2021. We had the opportunity to evaluate our activities, business model and impact with a focus on the Sustainable Development Goals (SDGs) and became a member of a family where we will create strength from unity. In a similar vein, we continue to implement the "ILO's Model for the Promotion of Gender Equality in Companies", which we committed to with the protocol we signed with the International Labour Organization (ILO) and Kıraça Holding in 2019, and we are proud to say that we have made this model a part of our work culture. In order to carry out Gender Equality activities and take the necessary measures to increase women's employment, the Positive Equality Committee, established in 2019, developed our "Development Plan", which aims to increase the number of female employees by 2% on average every year until 2026. In 2021, we realized our goal of increasing the number of female employees by 2% on average every year, which we declared in 2019, within the scope of our development plan. In 2021, the number of female employees increased by 20% from 58 to 70.

We invest in human resources through practices based on continuous development in line with the strategies we have developed as a company and the targets we have set, and we provide our employees with a working environment that supports them in developing themselves and determining their career goals in line with the needs of our company. We monitor their development in the process, evaluate the performance of our employees with systematic and objective approaches and create a feedback environment.

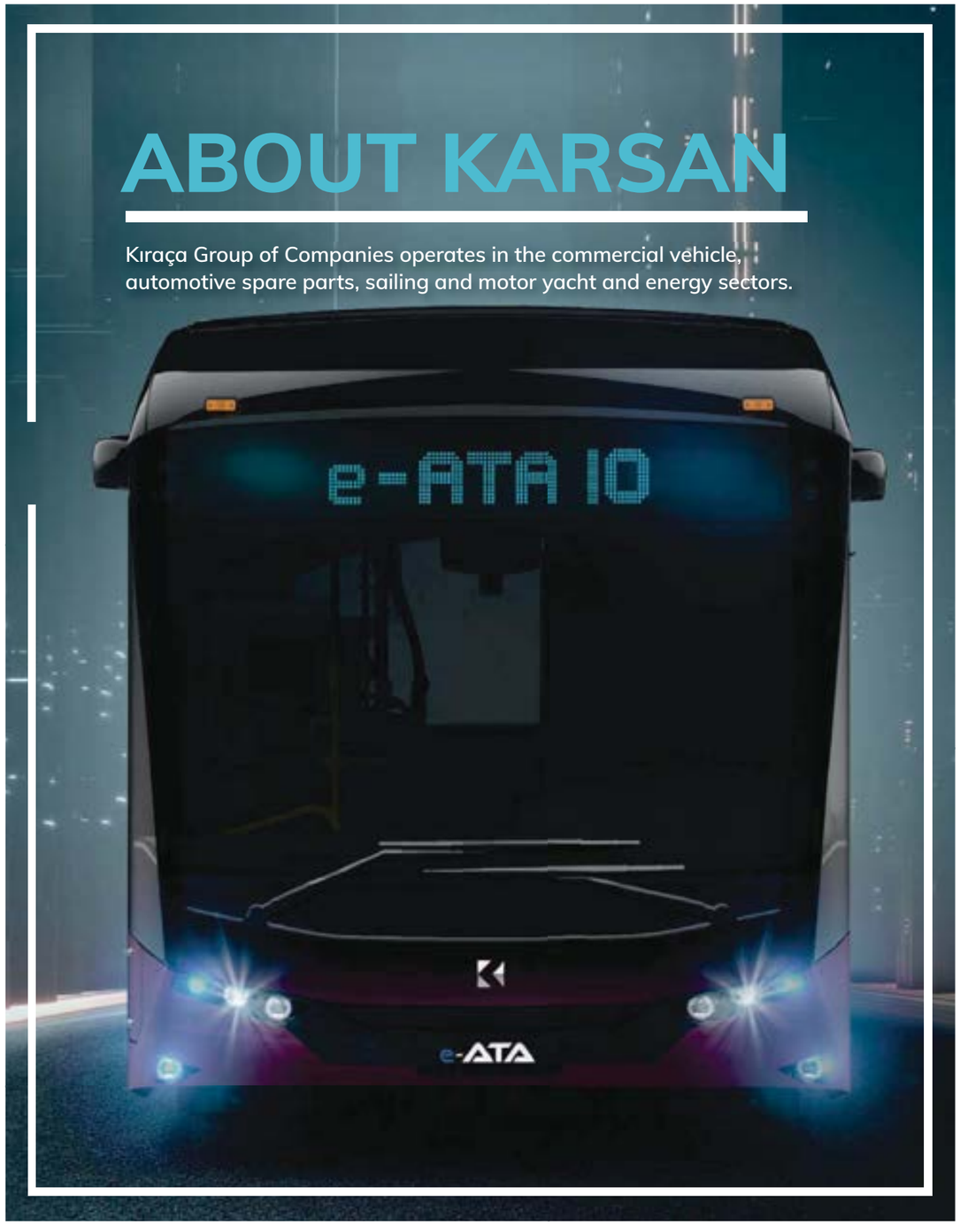
Finally, I would like to emphasize that our national and international achievements are based on our business culture that emphasizes always doing better and being open to new ideas. We will continue our journey with the awareness that our colleagues are the most important force that will carry Karsan to the future we aim for, and with the belief that a common future is possible together. I owe a debt of gratitude to you, our shareholders, customers, business partners, employees and all other stakeholders who have not left us alone in this process.

Best Regards,
İnan Kıraç
Chairman of the Board of Directors



İnan KIRAÇ
Chairman of the Board of Directors
Karsan Otomotiv Sanayii ve Ticaret A.Ş.

As Karsan, we are proud to be the pioneer of environmentally friendly mobility solutions and contribute to the economy of our country by adopting the vision of "One Step Ahead in the Future of Mobility" both nationally and internationally.



ABOUT KARSAN

Kıraça Group of Companies operates in the commercial vehicle, automotive spare parts, sailing and motor yacht and energy sectors.

Founded in 1966 with the “desire to move the country forward”, Karsan has become a growing company that manufactures for the world’s leading automotive brands, provides sales and after-sales services through its widespread service network, and has been intensively developing and producing original public transportation products under its own brand for the last 15 years.

Since 1981, we have been producing commercial vehicles in our two factories in Bursa with an annual capacity of 19,870 units in a single shift with 100% domestic capital.

The Hasanağa Organized Industrial Zone (HOSAB) Factory, where we manufacture minibuses, buses and light commercial vehicles, has a total area of 200 thousand m², 90 thousand m² of which is closed area. The Bursa Organized Industrial Zone (OIZ) Factory, where we produce tractor cabins, cataphoresis and spare parts, has a total area of 29 thousand m², 20 thousand m² of which is closed area. In addition to our widespread commercial network throughout Turkey, we also serve in 20 countries around the world with our extensive production capacity and export infrastructure. We shape the DNA of our brand with a culture of innovation. As we have done so far, we are working to help people realize their basic right to mobility with innovative, environmentally friendly and economical solutions, and we are pioneering the development in this direction. Today, Karsan focuses on the production of 100% electric and autonomous vehicles, which are indispensable elements of the “smart city life” of the future, and innovative business models, aiming to improve the quality of life of societies through environmentally friendly methods.

VISION

Staying one step ahead in the future of mobility.

MISSION

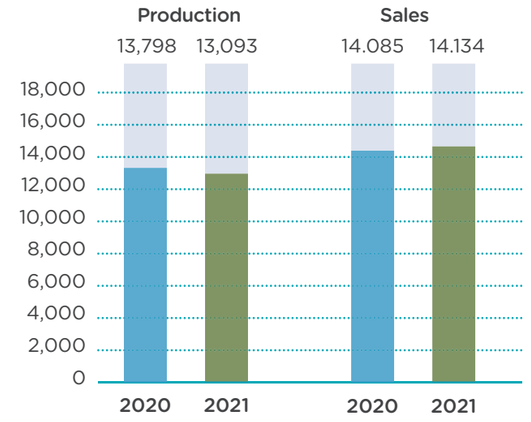
Providing creative, sustainable and inspiring solutions and suggestions to customer needs in the global land transportation market.

The Economic Value We Create

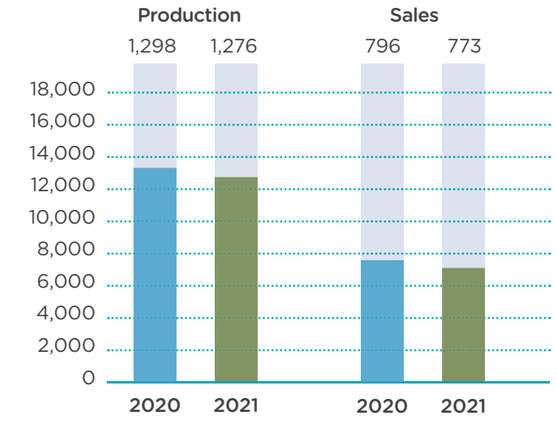
	2021	2020	2019
Endorsement (Thousand TL)	2,100,240	1,615,953	1,731,865
Production Amount (Quantity)	3,437	3,106	5,013
Revenues	2,069,462	1,560,367	1,704,291
Expenses of Sales (-)	-1,526,432	-1,141,915	-1,416,645
Price Margin of Business Operations	**543,357**	**418,452**	**287,647**
Price Margin of Financial Activities	30,778	55,586	27,574
TOTAL PRICE MARGIN	**574,135**	**474,038**	**315,221**
General Administration Expenses (-)	-117,293	-71,954	-56,743
Marketing Expenses (-)	-126,635	-76,453	-63,460
Research and Development Expenses (-)	-5,798	-10,258	-9,519
Other Real Operating Income	461,878	241,786	102,422
Other Real Operating Expenses (-)	-5,788	-32,075	-29,937
REAL OPERATING INCOME	**780,499**	**525,084**	**257,984**
Income from Investment Activities	10,667	1,952	83,364
Expenses from Investment Activities (-)	-13,665	0	-2,827
OPERATING PROFIT BEFORE FINANCE EXPENSES	**777,501**	**527,036**	**338,522**
Financial Expenses (-)	-723,934	-470,454	-313,796
PROFIT BEFORE TAX	**53,567**	**56,582**	**24,726**
Tax Income / (Expense)	**54,711**	**-35,862**	**-4,422**
Period Tax Expense	-7,373	-1,644	-2,145
Deferred Tax Expense	62,084	-34,218	-2,276
PERIOD INCOME	**108,278**	**20,720**	**20,304**

Table 1: The Economic Value We Create

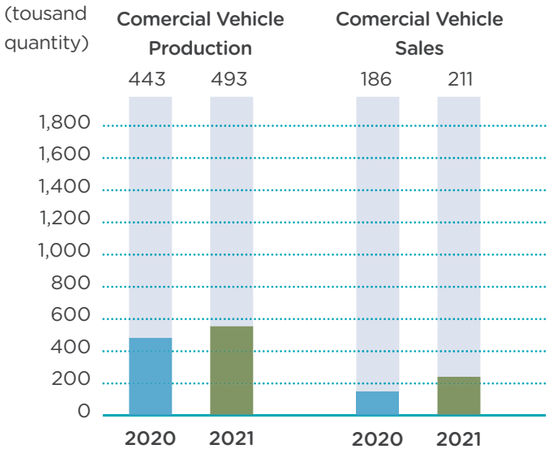
European Automotive Market
(quantity)



Turkey Automotive Market
(quantity)



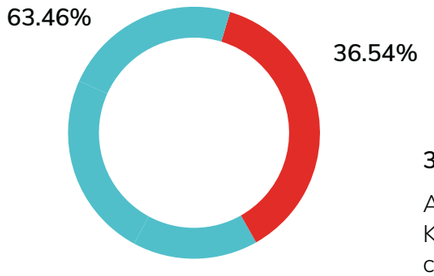
Turkey Automotive Market
(tousand quantity)



Capacity Utilization Rate	2021	2020	2019
Capacity Utilization Rate	%17.2	%15.6	%27.5

Table 2: Capacity Utilization Rate

Karsan Shareholding Structure



34,56%

As of the end of 2021, Karsan's share in actual circulation is 34.56%.

Total: 900.000.000 TL

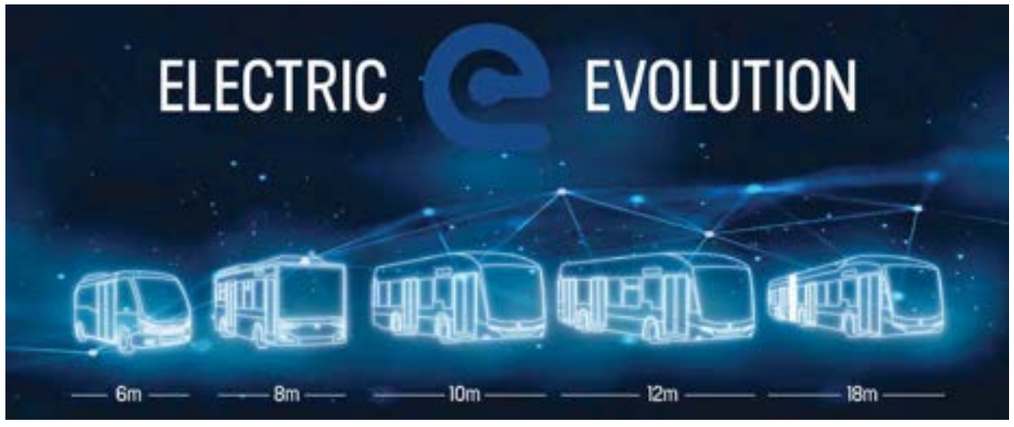
Kıraça Holding | Others

Karsan shares have been traded on Borsa Istanbul with the symbol "KARSN" since 2000. The indexes the company is included in as of the end of 2021 are BIST ALL/ BIST Metal Products, Mach. / BIST 100 / BIST Stars / BIST Industrials / BIST Bursa / BIST 100-30.

Information on the Company's Direct or Indirect Subsidiaries and Share Rates

Company's Partnership Share

Name of Company	Activity area	31.12.2021		31.12.2020	
		Direct or Indirect Subsidiaries	Effective shareholding rate	Direct or Indirect Subsidiaries	Effective shareholding rate
Karsan Otomotiv Sanayi Mamulleri Pazarlama A.Ş.	Distributor	6.43%	6.43%	25%	25%
Karsan USA LLC	Sales and marketing	100%	100%	100%	100%
Karsan Europe SRL	Sales and marketing	100%	100%	100%	100%
MaaS Global OY	Transportation Solutions	5.81%	5.81%	8.04%	8.04%
Industria Italiana Autobus S.P.A	Production, distribution and marketing of buses	28.59%	28.59%	28.59%	28.59%
Karsan İç ve Dış Ticaret A.Ş.	Sales and marketing of domestic and foreign vehicles and spare parts	100%	100%	100%	100%
Karsan North America LLC	Sales and marketing	100%	100%	-	-
Hervouet Corporate Industry SAS (HCI)	Automotive and Spare Parts Marketing	50%	50%	50%	50%
Hervouet Corporate Lease SAS	Financial Leasing	50%	50%	50%	50%



Awards

In 2021, we continued to be deemed worthy of awards with our business culture that has shaped the successes we have achieved at home and abroad in the half-century we have left behind after our establishment and our firm steps towards becoming a global brand.

With the aim of contributing to the preparation of the next generation for business life, we launched the positive internship program in cooperation with the Ministry of National Education (MEB), which established an electric vehicles laboratory, and the "Gen Positive Orientation" application for new employees. For a warmer communication, we created the "Cafe Positive" area within our company. With the Karsan Positive Communication Portal, we have moved more than 50 applications to the digital environment for the dissemination of corporate culture and the sustainability of processes. In 2021, we received an award in the Business, Business Culture and Workforce Transformation Category of the "Common Tomorrows" program, which has been organized by the Turkish Confederation of Employers' Associations (TİSK) since 2014 with a different theme every year to raise awareness of social responsibility among corporations, with our Karsan Positive & Communication Portal project, which covers our internal change, transformation and renewal process and whose foundations were laid in 2017, under the main theme of "Tomorrow of Our Business".

Our Positive Equality journey, which we realized within the scope of Gender Equality, was awarded by the Federation of Automotive Maintenance Associations of Turkey in the category of Women's Employment in 2019; we were deemed worthy of the BUSIAD Doğaz Ersöz award in the category of Supporting Equality between Women and Men in Working Life, and in 2021, we were awarded by The Stevie Awards, Silver Stevie Winner in the category of Success in Leadership Development for Women. In the same year, we were also included in the İş Portföy KOÇ-KAM Women-Friendly Companies Index list.

Karsan Was Deserved of an Award for its "Business Culture" That Shapes Its Achievements at Home and Abroad!


KARSAN

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REDEFINING MOBILITY

KARSAN

Redefining Mobility

Thanks to the importance we attach to R&D and innovation and the strong infrastructure we have built, we are working to develop environmentally friendly, safe and smart mobility systems that shape the future for both our country and the world.

The pressure on cities is increasing day by day due to the rapidly growing population and the intensification of economic activities. In Organization for Economic Co-operation and Development (OECD) countries, the urban population is expected to reach 80 percent by 2050. Increased time spent in traffic leads to reduced efficiency in economic and environmental dimensions, and the need for restructuring and sustainable solutions for cities is increasing exponentially, along with issues such as climate change, environmental impacts, health and safety.

Regulations limiting hydrocarbon-fueled vehicles, developments in battery technologies that enable electric vehicles to meet expectations in terms of both economy and performance, and the development of vehicle charging station infrastructures all contribute to the growing demand for electric vehicles.

Increasing by 108% in 2021 compared to the previous year, electric vehicle (EV) sales are expected to reach 32 million in 2030. The fact that the purchase and use of electric vehicles is encouraged, especially in the European Union, drives manufacturers towards this area. Along with these developments, we also observe an increase in business models and online services that diversify mobility models.

While the 2030 de-carbonization policy adopted within the framework of the European Green Deal accelerates the transition to electric vehicles, this transformation is happening faster in public transportation. We see that e-bus sales in the European market grew by 67% annually by the end of 2021. In 2019, local governments in the European Union agreed to increase the number of electric buses as a share of the existing fleet by 2025 and 2030 under the Green Public Procurement Rules. According to this agreement, at least a quarter of new buses purchased by public authorities in European cities must be “electric power” buses by 2025 and at least a third by 2030.

According to a 2021 study, there are approximately 180 thousand public transportation vehicles in Europe. In order to achieve the above-mentioned targets, it means that European local governments will purchase approximately 45 thousand electric buses in the period 2022-2025. Based on this information, we foresee that electric bus sales in Europe will increase to 16 thousand units annually by the end of 2025 and to 30 thousand units by the end of 2030. We expect that the energy security concerns caused by the Ukraine crisis will accelerate the green transformation and further increase new e-bus purchases, especially by public institutions and municipalities. With the high price-quality performance of the brands offered by KARSAN in the electric bus segment, we expect the company’s European e-bus market share to reach 4% by the end of 2022 and 5% on average in the 2023-2027 period.

The fact that the increasing number of electric vehicles are structurally much more compact than hydrocarbon-fueled vehicles allows many vehicles to be produced on the same platform thanks to modular platform structures. This provides a great advantage in terms of diversity, quality and production efficiency in the automotive industry.

With the rapid developments in technology, IoT applications have started to find a place in the mobility sector. The ability of autonomous vehicles to communicate with each other, city infrastructure, traffic systems and even with people thanks to IoT technology has increased the quality of life, safety and efficiency. At Karsan, we are aware of these developments and the demand for transformation, and we are taking the necessary steps to pioneer innovative mobility solutions.

Mobility Redefined

CLIMATE CHANGE AND THE ENVIRONMENT

- Energy Management
- Greenhouse Gas Emissions
- Water Consumption
- Use of Environmentally Friendly Materials
- Waste Management and Recycling
- Vehicle Emissions and Fuel Efficiency
- Vehicles with Reduced Environmental Impact

SMART MOBILITY

- R&D and Innovation
- Electric and Autonomous Vehicles
- New Public Transportation Models
- Customer Behavior Change
- Information Infrastructure and Cyber Security
- Disruptive Technologies and Business Models
- Digitalization & IoT
- Traffic and Passenger Safety

RESPONSIBLE PROCUREMENT

- Sustainability in Supplier Operations
- Sustainability in Product Choices
- Supplier Audit

INCLUSIVE WORKPLACE

- Gender Equality
- Employee Development and Vocational Training

GOVERNANCE FUNDEMENTALS

- Corporate Governance
- Business Ethics
- Risk Management
- Internal Audit
- Occupational Health and Safety
- Management of Epidemics
- Customer Satisfaction
- Quality Management
- World Class Manufacturing (WCM)

GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-46, GRI 102-47

Our Sustainability Approach

As Karsan, we are pleased to share with you the second sustainability report we launched in 2021. Within the scope of this report, we have evaluated the economic, environmental, social and governance impacts of our operations and demonstrated their compliance with the UN Sustainable Development Goals. While preparing the content of the report, we took GRI Standards as a basis and set the sustainability priorities that we identified with the participation of our internal and external stakeholders as the main framework of our report. We evaluated the issues we identified not only in terms of the significance of the impact, but also in terms of at which stage of our value chain the impact occurred.

We are aware of the importance of risk and opportunity management in relation to sustainability issues; we see the realization of our corporate strategies, correctly identifying risks and opportunities and their financial impacts, eliminating risks if possible, mitigating their impacts if not, seizing opportunities and strengthening our pioneering and innovative structure as the main objectives of our risk and opportunity management. While carrying out all these objectives, we ensure that they progress in line with our sustainability agenda.

We believe that sustainability management plays a major role in achieving the goals we have realized and plan to realize. Accordingly, we are establishing units that can coordinate the targets, plans, necessary actions and audits we set, and reshaping our management structure.

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Sustainability Management Structure

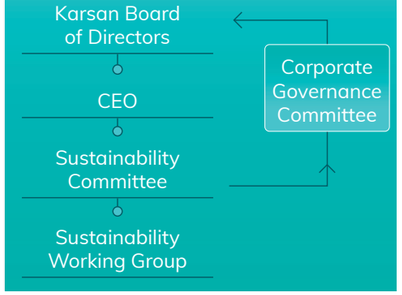
With the sustainability management development project we initiated last year, we identified our sustainability priorities and restructured the sustainability management process. Our sustainability management is carried out by the Corporate Governance Committee, which reports directly to the Karsan Board of Directors. The Corporate Governance Committee ensures compliance with the sustainability principles stipulated in the CMB legislation and provides the Board of Directors with recommendations to improve sustainability practices. The transformation of our sustainability management into strategic activities is the responsibility of all business units under the leadership of the CEO.

Sustainability management both assesses and manages our priorities and guides our strategy actions and activities in this regard. Under this coordination, all our units work in a focused manner to improve our environmental, social and governance performance. Our Karsan Sustainability Committee determines strategic decisions for the management of sustainability issues in line with the main goals set by the Board of Directors, sets company targets, and decides on the necessary investment and implementation programs. Our committee is chaired by the CEO and includes relevant senior executives.

The Sustainability Working Group, which we formed with the participation of the managers of all relevant business units, transforms the goals and strategies set by the Sustainability Committee into action plans together with the sub-working teams that will be organized under subject headings, while also implementing performance-enhancing activities. Our sustainability structure and the activities of our Sustainability Committee and Sustainability Working Group units are carried out under the responsibility of our World Class Manufacturing (WCM) business unit. In the coming periods, as part of Karsan's sustainability activities, we aim to support our sustainability management structure with external stakeholder opinions by creating various management platforms.

Sustainability Working Group units are carried out under the responsibility of our World Class Manufacturing (WCM) business unit.

Karsan Sustainability Management Structure



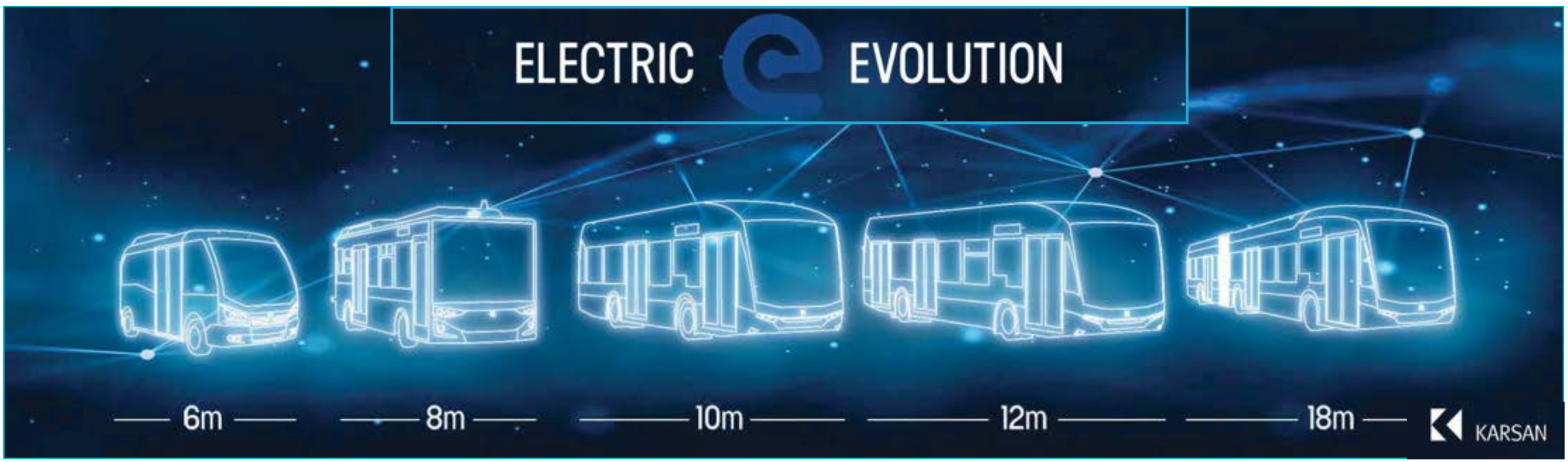
GRI 102-40, GRI 102-42, GRI 102-43, GRI 102-44

Stakeholder Communication and Sustainability Priorities

We conducted a process based on GRI Standards (www.globalreporting.org) while determining our sustainability priorities.

At Karsan, our sustainability management is based on our sustainability priorities, which we set in line with various research studies and the opinions of our stakeholders. We conducted a process based on GRI Standards (www.globalreporting.org) while determining our sustainability priorities. We identified our sustainability priorities by making assessments from the perspective of “impact, risk, opportunity and stakeholder expectations” together with 125 company representatives with different titles ranging from senior management to unit employees and nearly 50 external stakeholders, primarily suppliers, customers, financial institutions and NGOs.

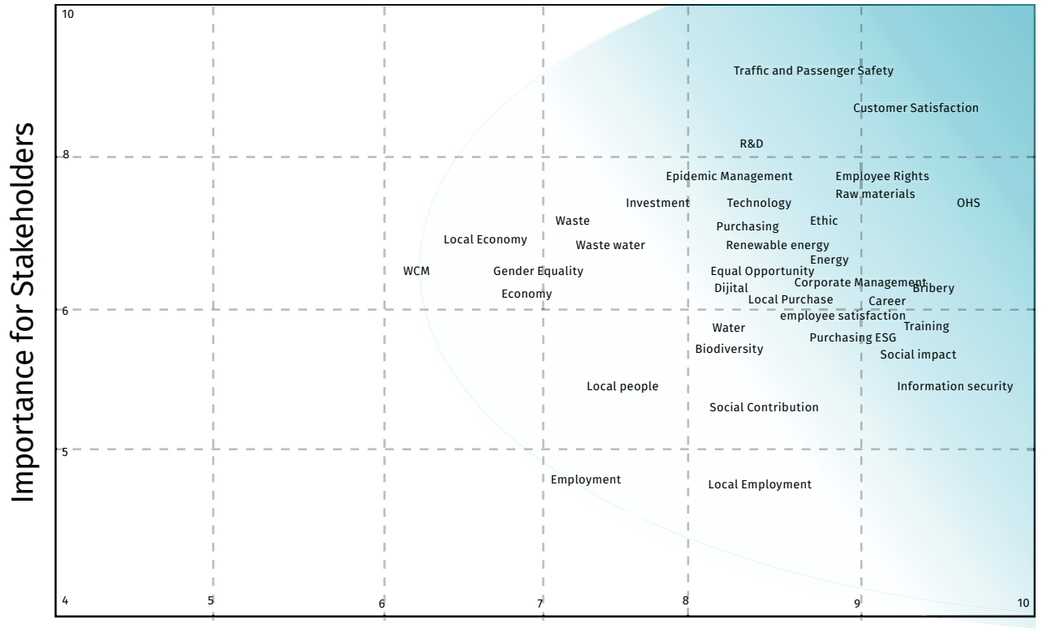
According to the results of the survey, in which the strategic importance of material issues for the organization and their importance for stakeholders were evaluated and scored together, we have shown the 26 most prominent issues and all the issues evaluated in our materiality matrix below. As a result of the analysis of the matrix, Karsan has identified our 1st, 2nd and 3rd degree important sustainability issues. R&D and Innovation, which is one of our strengths, is one of the most important 1st degree issues, followed by Customer Satisfaction, Employee Rights and Efficient Use of Raw Materials.



In 2021, we achieved a B- score in the Carbon Disclosure Project (CDP) Climate Change Program, which we participated in for the first time, and achieved a result at the level of the global average of our industry. We also shared our CDP report with our stakeholders on our corporate website (https://www.karsan.com/tr). In addition, with the activities we carried out in 2021, we aim to be included in the Borsa Istanbul Sustainability Index (BIST SI) in 2022.

We achieved many of our goals in 2021, which covers our reporting period, and we set new goals in 2022 to take our position to the next level. In this direction, we set our sustainability agendas and endeavored to follow a path in harmony with development goals.

KARSAN PRIORITIZATION MATRIX - 2021



Impact on Institutional Success

1st Degree Priority Topics	2nd Degree Priority Topics	3rd Degree Priority Topics
Customer Satisfaction	Contribution to Local Economy	Local Public Relations
Traffic and Passenger Safety	WCM	Contribution to Society
R&D/P&D/Innovation	Contribution to Economy (Country)	Information Security Man-agement
Epidemic Management	Conservation of Biodiversity	Local Employment
Employee Rights	Grievance Mechanisms	Employment Creation
Efficient Use of Raw Material	Climate Change and Greenhouse Gas Management	
Ethical Principles and Practices	Water Management	
Occupational Health and Safety	Oversight of ESG in Corporate Procure-ment	
Financial Performance of the Insti-tution	Creating Positive Social Impact	
Prevention of Bribery and Corrup-tion	Employee Performance Management	
Employee Training		
Employee Career Management		
Employee Satisfaction		
Energy Efficiency Management		
Employee Retention		
Local Purchasing		
Digitization and IoT		
Corporate Management		
Equal Opportunity and Diversity, Inclusion		
Renewable Energy Generation,		
Use of Advanced Technology		

GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-46, GRI 102-47, GRI 102-49

Our Priority Issues and Sustainable Development Goals

We endeavor to move forward in a planned manner with sustainability management. We take the necessary corporate governance steps and establish the necessary units in our company structure. As a result of the process we conducted with our internal and external stakeholders, we have identified our sustainability priorities that cover all of our company activities. We have aligned all the goals we have realized and plan to realize in the future with our priorities and the "Sustainability Development Goals". We expect the same dedication from all our stakeholders with whom we cooperate on this path. At Karsan, we aim to ensure that the work we carry out in line with the priorities we have identified together with our stakeholders contributes to the following Sustainable Development Goals:

SDG 5: Gender Equality		SDG 11: Sustainable Cities and Communities	
SDG 7: Affordable and Clean Energy		SDG 12: Responsible Consumption and Production	
SDG 8: Decent Work and Economic Growth		SDG 13: Climate Action	
SDG 9: Industry, Innovation and Infrastructure		SDG 17: Partnerships for the Goals	

Climate Change and Environment

Climate change is one of the biggest risks we have faced in recent years due to the extreme weather events it causes. In order to find a solution, many scientists, policy makers, industry organizations and independent institutions around the world offer many measures, regulations and sanctions. As Karsan, we are aware of these risks facing the world and are conscious of our responsibilities. With the Karsan Environment and Climate Change Policy, we identify environmental risks and opportunities and incorporate them into our operations. We prioritize reducing our environmental impact through effective energy, water and waste management, fuel efficiency, reduction of direct and indirect emissions, and the use of environmentally friendly raw materials by setting targets for future periods in line with a sustainable development approach.

With this awareness, we have also focused our steps on the UN Sustainable Development Goals. In this context, we have taken steps in our organizational structure to effectively manage sustainability issues in our organizational structure. In this way, we focus on our goals as an organization as a whole and strive to manage our direct and indirect impacts. In line with Goal 12 "Responsible Production and Consumption", we aim to create sustainability awareness both within our organization and among all stakeholders with whom we interact. In addition, we strive to contribute to the prevention of climate change both by ensuring and reducing the efficiency of our raw material and resource consumption and by supporting our customers in reducing their negative impacts on the environment. Therefore, Goal 13 "Climate Action" is among our prioritized goals. In order to multiply our impact and create strength in unity, we attach importance to walking together within the scope of Goal 17 "Partnerships for Goals" to create a sustainable world.

Smart Mobility

Along with digitalization, we focus our investments on R&D and innovation developments in line with Goal 9 "Industry, Innovation and Infrastructure" and Goal 12 "Responsible Consumption and Production". With the vision of "One Step Ahead in the Future of Mobility", we are taking next-generation transportation steps, producing projects that have reduced environmental impact and can respond to our customers' behavioral changes. As a result of the ever-increasing world population and urbanizing communities, we pay attention to the problems that may arise in mobility and to creating accessible and environmentally friendly transportation options. Thanks to our Driverless Electric and Autonomous Vehicles, we create new public transportation models and aim to maximize traffic and passenger safety. We represent our country in the best way possible in the international market with our Autonomous e-Truck, our project that shapes the future of transportation, and play a role in creating Goal 11 "Sustainable Cities and Communities". On this path, we believe in the importance of Goal 17 "Partnerships for the Goal" and endeavor to carry out national and international collaborations.

Responible Procurement

The production disruptions caused by raw material and semi-finished product shortages that we have recently experienced in the automotive sector have further emphasized the importance of uninterrupted value creation. Therefore, as this doctrine points out, every link in the value chain is important for an uninterrupted, efficient and flourishing value creation and protection process. At Karsan, the fact that we consider our value chain as a whole has enabled us to continue our production activities without interruption even during challenging times. We see our suppliers not only as production actors from whom we buy goods or services, but also as business partners who add value to us and the whole. By putting sustainability at the center of our supply operations and product preferences, we audit both suppliers and the products we buy, thus ensuring continuous development and improvement. We aim to evaluate and improve our suppliers in terms of environmental, technological and social aspects within the scope of our efforts, which we accelerated with our Green Procurement workshop. Therefore, Goal 12 “Responsible Consumption and Production”, Goal 8 “Decent Work and Economic Growth” and Goal 17 “Partnerships for the Goals” are among our priorities.

Occupational Health and Safety

At Karsan, we protect the health and safety of our employees and everyone in our production facilities and fields of activity, and aim to create a safe workplace for our employees in line with Sustainable Development Goal number eight, “Decent Work and Economic Growth”. By ensuring that the Occupational Health and Safety Department works with the Environment, Energy and Sustainability departments, we integrate the two areas. On the other hand, Karsan considers occupational health and safety as a top priority throughout its corporate activities, and we embrace the joint participation and responsibility of all Karsan employees.

Social Development

With more than half a century of experience in the automotive industry and our flexible production capacity, we lead the world’s distinguished brands by offering solutions in design, engineering and production policies and we produce commercial vehicles. Within the scope of our national and international activities, we contribute to the development of the know-how skills of the domestic automotive industry with our R&D projects, while offering domestic alternative solutions to the transportation needs of our country with our smart mobility approach. In addition, we contribute to the national economy both in terms of export inputs and increasing the qualified workforce. In this context, we generated USD 166.2 million in export revenues in 2021, providing a significant foreign currency inflow to our country. We believe that these competencies and activities make significant contributions in line with Goal 9: “Industrial Innovation and Infrastructure”. This contribution and support is also included in our Goal 8: “Decent Work and Economic Growth”, which focuses on contributing to the provision and increase of qualified employment. Spreading our corporate culture shaped by our non-discriminatory Human Resources policy to all our stakeholders and society is among our primary goals. In this direction, within the scope of the “Model for the Promotion of Gender Equality in Companies” we signed with the international labor organization in 2019, we have set the goal of increasing women’s employment by at least 2% every year compared to the previous year, and we care about both setting an example for our society and spreading this perspective to our entire value chain. In this direction, we also adopt SDG Goal 5 “Gender Equality” for our purpose and the targets we set.

Sustainabilitiy Steps and Targets for The Reporting Period

In 2021, we are working to set an example in this area with both our projects and the sustainability plans we have targeted for 2022.

In 2021, we are working to set an example in this area with both our projects and the sustainability plans we have targeted for 2022. **As of 2022, we plan to include a sustainability category in the Karsan Kaizen awards.** In this way, we aim to reward improvement projects that will reduce carbon emissions on a monthly basis under the headings of Environment, OHS and Sustainability.

In 2022, we plan to put into effect our procedure that includes Life Cycle Analysis (LCA) analysis and carbon footprint calculations per product for the electric vehicles we produce. Within the scope of this practice, we calculate the carbon emissions of electric vehicles during the procurement phase, production phase, product life and after the end of their life. As a result, we aim to have them environmentally documented by the Environmental Product Declaration (EPD). We ensure that all these reporting and certification processes comply with ISO 14067 Product Carbon Footprint Standard, ISO 14040/44 Life Cycle Assessment (LCA) and Life Cycle Impact Assessment (LCIA), ISO 14025 Environmental Impacts and Declarations and EN 15804 (Sustainability of Construction Works, Environmental Declarations for Products, Core Rules for the Product Category of Construction Products) Norms and Standards.

For 2022, Karsan has set another goal to create a “Carbon Neutral Roadmap”. With the Carbon Neutral Roadmap, we aim to reduce and eliminate Category 1-2 emissions through on-site measurements, analyses and calculations. Our 2022 targets include creating projects that will also reduce our energy and fuel-based emissions. In addition, in the light of the Carbon Neutral Roadmap, we aim to include the Solar Energy Project in the energy and fuel-based projects and present a report in 2022, after evaluating the feasibility studies, in which we share the results of our activities.

We organized the first “Green Procurement” workshop in 2021 in order to spread our positive impact throughout our value chain, to benefit our suppliers from our experiences and to create a multiplier effect. As a step in our sustainable supply chain process, we established our policy that includes our principles in this area. In 2022, we aim to implement green procurement practices with the suppliers we have selected as part of a pilot study and to audit our suppliers accordingly. As Karsan, we know that we are not alone in taking steps to improve our world, and we are happy and proud to cooperate with all stakeholders we can reach on this path.

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OUR GOVERNANCE FUNDAMENTALS

KARSAN

Our Governance Fundamentals

"As part of our corporate culture shaped by more than half a century of experience, we adopt a governance approach based on internationally recognized corporate governance principles, unconditional customer satisfaction, superior quality and excellence norms in production processes and products, and an innovative and creative R&D culture."

Corporate Governance

As a publicly traded company listed on Borsa Istanbul, we implement internationally recognized corporate governance principles in our management structure due to both the relevant legislation and our responsibility to create value for our stakeholders. In this context, we strive to maximize our level of compliance with the Corporate Governance Principles issued by the Capital Markets Board (CMB). Within the scope of our efforts to comply with corporate governance principles, we have developed many corporate policies such as Information Policy, Stakeholders Policy, Remuneration Policy, Dividend Distribution Policy, Code of Ethics, Donation and Aid Policy, and Employee Compensation Policy in the past reporting periods. We carefully monitor the implementation of these policies throughout our operations.

With the Communiqué published by the CMB in late 2020, the Sustainability Principles Compliance Framework has also become a part of our corporate governance compliance requirements. In this context, we have started to convey our activities, performance and targets on environmental, social and governance issues within the scope of the Corporate Governance Compliance Report through our Annual Report.

Board of Directors and Senior Management Structure

The Board of Directors is the highest decision-making body of the company, consisting of members elected at the General Assembly meetings held with the participation of Karsan shareholders to serve for a certain period of time. As of 2021, Karsan's Board of Directors consists of a total of seven members. All members of the Board, except the CEO, meet the CMB's criteria for non-executive members and two members meet the independence criteria. As of our reporting period, one female member serves on the Board of Directors. An Early Detection of Risk Committee, an Audit Committee and a Corporate Governance Committee have been established to report to the Board of Directors in order to carry out the duties of the Board of Directors more efficiently and to comply with the Corporate Governance Principles set by the CMB. The Corporate Governance Committee also undertakes the functions of the Nomination Committee and the Remuneration Committee.

With the amendment realized during the reporting period, the responsibility of ensuring compliance with sustainability principles throughout the company and the effectiveness of sustainability management has been added to the duties of the Corporate Governance Committee. The committees are chaired by independent members of the Board of Directors. The duties of the Chairman of the Board of Directors and the CEO are carried out by different individuals. The CEO is the top executive responsible for the execution throughout the company and carries out this duty in coordination with the senior management of the company. As of 2020, there are 10 executives in the senior management of the Company, one of whom is a female.

Corporate Risk Management and Internal Audit

As Karsan; by recognizing that enterprise risk is on the basis of enterprise risk management, corporate governance and internal audit; we shape our policies and principles with considering internal control concept and shape all our processes with taking internal control into consideration.

Risk management and internal audit activities are at the core of governance practices. Karsan's risk management and internal audit activities are carried out under the roof of the Board of Directors. Our risk management activities are carried out in coordination with all departments under the leadership of the Corporate Risk Management and Internal Audit Department. Although each unit of work within Karsan is responsible for controlling the potential risks, the supervision and reporting functions are mainly reported by the Karsan Corporate Risk Management and Internal Audit Department. The Early Detection of Risk Committee, a sub-committee of the Board of Directors, is responsible for the control and evaluation of Karsan's risk management system and activities, while the Audit Committee is responsible for the control and evaluation of the internal audit system and activities. Our Risk Management and Internal Audit Department performs the functional management of these processes and reports the results to the CEO and the relevant Committees. In line with our risk management activities, we use a dynamic risk management program structured in accordance with the COSO Enterprise Risk Management systematic, ISO 31000 Standard and CMB Corporate Governance Principles to achieve our strategies and targets, to define risks correctly and to take action accordingly, and to minimize the risks that arise.

At Karsan, we recognize the importance of the concept of internal supervision as it is at the core of risk management, corporate governance, and internal audit. We conduct all our internal audit activities, which constitute one of the building blocks of our risk management model, in compliance with corporate values and commitments, policies, procedures, management standards and legal regulations. In this context, we aim to ensure that financial, managerial, and operational information is recorded accurately, timely and reliably, that management directives are known and implemented throughout the company, and that company assets are protected against misconduct.

We implement internal audit activities for risk factors that are identified and targeted to be mitigated as a result of risk assessment studies. We conduct our internal audit activities, which are designed in accordance with the principles of the International best practices, on a process and risk-based basis. COSO Enterprise Risk Management Model, which we apply within the scope of risk management, is the most internationally recognized, continuously developed and updated, and the most comprehensive risk management model. Like the COSO model, we evaluate the risks that are detected in all the internal audit and assurance activities we implement to protect the assets of our organization with their financial dimensions and ensure the follow-up of the actions we take.

We evaluate the risks that may arise within the scope of our risk management and internal audit activities within the framework of environmental, social and governance sustainability. We update environmental and climate risks and opportunities and energy risks every year within the scope of environmental sustainability activities of our risk management actions and include them in the annual corporate risk analysis.

We categorize Climate Change and its risks and opportunities under regulation, technology, market, reputation and chronic risks. We see electric vehicle production, R&D activities and renewable energy technologies, which constitute our pioneering role in the sector, as opportunities. We continuously evaluate technology-related risks and share the situations that pose risks with the senior management through Management Briefing meetings held periodically. In line with the decisions taken, we carry out practices such as system leakage tests, emergency plans against interruption risks, and firewall strengthening against attacks.

We focus our risk management activities within the scope of social sustainability on ethical violations, child labor and human rights. With our anonymous complaint e-mail application about ethical violations in our organization, we continuously monitor and evaluate financial losses due to misconduct and errors, and design control mechanisms to prevent losses. Karsan does not employ any employee under the age of 18, and we act in accordance with the procedures and principles for employing young workers. We adopt not employing forced or involuntary labor as our Human Resources policy.

In our risk management processes, we are committed to comply with applicable national and legal regulations, standards published by the International Labor Organization (ILO), the Universal Declaration of Human Rights, and United Nations conventions. We aim to ensure the continuity of the process and continuously improve our social sustainability practices.

We evaluate the risks that may arise within the scope of our risk management and internal audit activities within the framework of environmental, social and governance sustainability.

Business Ethics

Our ethical principles are based on respect for human rights. We take the UN Universal Declaration of Human Rights and the relevant regulations of the International Labor Organization as reference.

At Karsan, we adopt globally defined ethical rules in our relations with all of our business partners, employees, suppliers, customers, the environment and society in which we operate, and all institutions and organizations with which we interact. We do not compromise on the implementation of these rules and do not remain indifferent to any contrary situations. We organize the business ethics rules we follow in the Karsan Code of Ethics document and share it on our website so that our stakeholders can easily access and obtain information. Our code of ethics is binding for all managers and employees in all our operational processes. We also expect all stakeholders we cooperate with to share similar ethical values with us. We have established the Karsan Code of Ethics and Implementation Procedure in order to monitor the practical principles of our code of ethics.

The Ethics Committee, which is chaired by Karsan CEO, with the permanent membership of the HR Manager, Legal Counsel and the participation of the relevant senior manager on a case-by-case basis, monitors that the general public behaves in accordance with ethical rules, and that violations are investigated and necessary action and preventive measures are taken. For employees covered by collective bargaining agreements, we apply a different procedure and inform the Union Chief Representative. All our managers and employees are obliged to report violations of ethical rules to the Ethics Committee. Complaints submitted in writing or via e-mail in accordance with the conditions specified in the relevant procedure are evaluated by the Board and, if necessary, actions and measures defined in the implementation procedures are decided.

Our ethical principles are based on respect for human rights. We take the UN Universal Declaration of Human Rights and the relevant regulations of the International Labor Organization as reference. We also adopt a zero tolerance mentality in the fight against bribery and corruption. Accordingly, in any process of our activities, our employees and managers may not demand or offer gifts, privileges, facilitating payments and the like with a significant material value that may be perceived as bribery or bribery. We hold our employees responsible for reporting such a situation immediately. We also provide assurance to our employees that they will not be under pressure for their actions in compliance with ethical rules and for reporting violations. In 2021, the Ethics Committee did not receive any applications or reports of human rights violations, bribery or corruption.

Customer Satisfaction

We carefully listen to the expectations and needs of these stakeholder groups with different motivations through various channels and work to respond to them. The main goal of our After Sales teams is to respond to customer requests and complaints as soon as possible and to resolve these problems positively.

As we declare in our corporate values, the satisfaction of our customers is at the heart of our business. We take responsibility to gain the trust of our customers and make their lives easier. We aim to achieve excellence by raising quality and efficiency to a level that can compete at the international level with the understanding of continuous improvement in our processes that we have created to meet the expectations of our customers in our customer satisfaction development activities that we carry out in line with our Quality Policy. In this context, customer satisfaction activities are managed multi-dimensionally by a large organization organized under the roof of the After Sales and Spare Parts Directorate. We have 11 dealers and 73 authorized services in Turkey and 13 dealers and authorized services abroad. Due to the products we produce, our customers, users and consumers may differ. Therefore, customer satisfaction consists of meeting the expectations of these different groups as a whole. We carefully listen to the expectations and needs of these stakeholder groups with different motivations through various channels and work to respond to them. The main goal of our After Sales teams is to respond to customer requests and complaints as soon as possible and to resolve these problems positively. In this context, we consider our customers' requests as the most valuable input in redesigning our service models. For example, as a commercial vehicle manufacturer, our customers do not use our vehicles for their own use, but for urban transportation or commercial passenger transportation services. **As a result, working hours are among the peak hours when our customers use their vehicles the most. In order to prevent them from losing this time due to maintenance work, we have introduced night-time and on-site services.** In this way, we ensure that our customers keep their vehicles in continuous service and prevent loss of time.

Quality Management

We carry out our activities in compliance with ISO 9001 Quality Management Standard and IATF 16949 Automotive Quality Management Standard, and we continuously improve our quality focus at the design and production stages by using industry-specific FMEA-SPCMSA application tools.

In order to offer creative, sustainable and inspiring solutions and suggestions to the needs of our customers in the world land transportation market, we strive to continuously improve the level of quality by prioritizing process and product safety in line with our vision of being the most valuable company in the sector in our country by being preferred in the global market. Karsan Quality Policy, which forms the basis of our understanding of quality and excellence, covers the basic principles of our quality management activities. By harmonizing the scope of our quality management approach with the value chain, we carry out efforts to improve process, product and service quality at all stages, from procurement to after-sales processes, based on a process approach. We carry out these activities under the management and coordination of the Quality Directorate, which reports directly to the CEO and is organized on the basis of business processes. We carry out our activities in compliance with ISO 9001 Quality Management Standard and IATF 16949 Automotive Quality Management Standard, and we continuously improve our quality focus at the design and production stages by using industry-specific FMEA-SPCMSA application tools. We control our level of compliance with standards through internal audits. We carry out internal audits of the processes within the scope of the Quality Management System through the web-based application at frequencies determined in line with the risk analyzes created by taking customer satisfaction into consideration.

We monitor the findings of audits through the web-based nonconformity management system. We maintain the reliability of our quality management systems through external audits conducted by independent and accredited organizations. Quality certification is realized after external audits. We ensure the continuity of quality certifications by conducting recertification studies every three years for ISO 9001 and IATF 16949 standards. Our aim is primarily to maintain the continuity of existing quality studies and certification practices. In the long term, our goal is to become a company that is recognized and rewarded as a peer in the European EFQM Excellence System. We see quality management as an area of continuous improvement and we strive to improve our performance by transforming the findings of audits and risk assessment studies into practice. In this context, we implemented many practices during the reporting period. In addition to quality management systems, we also follow ISO 14001 Environmental Management System Standard, ISO 45001 Occupational Health and Safety System Standard, ISO 50001 Energy Management Standard, Lean Manufacturing, Kaizen and World Class Manufacturing methodologies in order to make the total quality approach dominant in various processes and to systematize continuous improvement efforts.

Quality Tracking System

Within the scope of digitalization of quality activities, we have implemented the project of managing the quality data of the vehicles produced through the Quality Tracking System (QTS) in order to ensure vehicle traceability, rapid data analysis, reporting and management efficiency with targets. The system is built according to the vehicle regions and error codes infrastructure specific to the product range, and the employee automatically selects and records the error detected by the employee through the error coding created according to the relevant region, detection location and error definition of the vehicle. During the barcode scanning activities that indicate the completion of the activities at the stations determined by the online line monitoring application of the vehicles, we systematically prevent the errors recorded in the system from being approved without being corrected. We monitor the quality performance of the vehicles by reporting all records entered into the system on a daily, weekly and monthly basis.

Within the scope of digitalization of quality activities, we have implemented the project of managing the quality data of the vehicles produced through the Quality Tracking System (QTS) in order to ensure vehicle traceability, rapid data analysis, reporting and management efficiency with targets.

Within the scope of the project, we provided awareness on quality norms in bonding processes by providing 72 hours of theoretical and practical training to 18 employees while repeating the training 3 times in 2021 for quality and manufacturing operators working on assembly lines.

Adhesive Bonding School

We launched the Adhesive Bonding Schools project in 2020 in order to achieve the goal of zero defects in bonding processes and to increase product quality and process competence. Within the scope of the project, we provided awareness on quality norms in bonding processes by providing 72 hours of theoretical and practical training to 18 employees while repeating the training 3 times in 2021 for quality and manufacturing operators working on assembly lines. With this instant project, we ensured that the lines and products are inspected frequency-specifically for bonding, and new practices are adopted and disseminated. The aim of our trainings is to ensure efficiency in energy, quality and application times while equalizing the application competencies of all operators in this field.

Assembly Practical Training Area

We commissioned the Assembly Practical Training Area in 2021 within the scope of our WCM and new on-the-job activities in line with our quality management targets. We aimed to enable our employees to experience production activities in the assembly practical training area, thus minimizing quality and occupational safety risks. We aimed to reduce our losses thanks to the training areas in the application area. We plan to train approximately 800 personnel who will be included in our organization within the scope of the Renault project in 2022, primarily in this area.

WORLD CLASS MANUFACTURING (WCM)

KARSAN

World Class Manufacturing (WCM)

WORLD CLASS MANUFACTURING

World Class Manufacturing (WCM) is a system that brings together the best practices that are compatible with each other so that businesses can continue their activities in a systematic way. In this production model, there are operational pillars that include the main pillars of competition such as environment, cost, quality, speed and flexibility, and indicators that monitor the practices in these areas. At Karsan, the roots of our continuous improvement activities throughout our operations date back to 2003. In 2003, we first implemented the ISO 9001 Quality Management System, followed by the adoption of ISO 14001, IATF 16949 (Automotive Quality Management System Training Program) and OHSAS 18001 (ISO 45001) system standards, and we started implementing Lean Team and Kaizen practices in 2004.

2003 ISO 9001

2004 ISO 14001

2004 Yalın Üretim

2007 ISO 16949

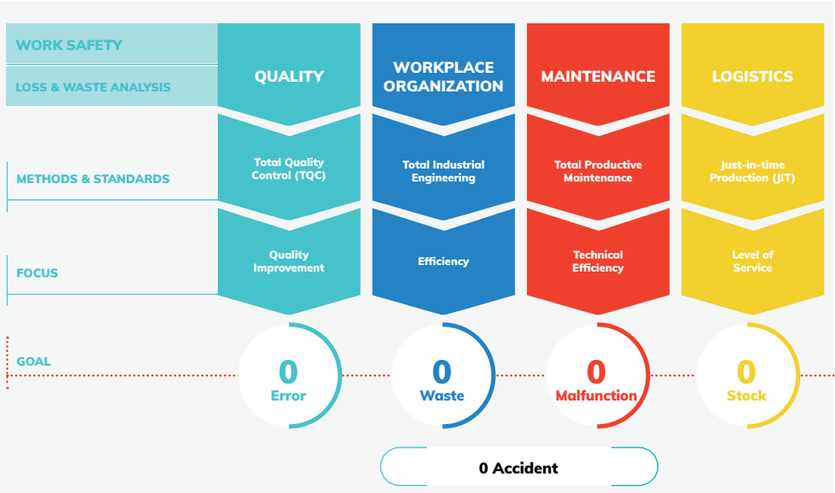
2008 OHSAS 18001

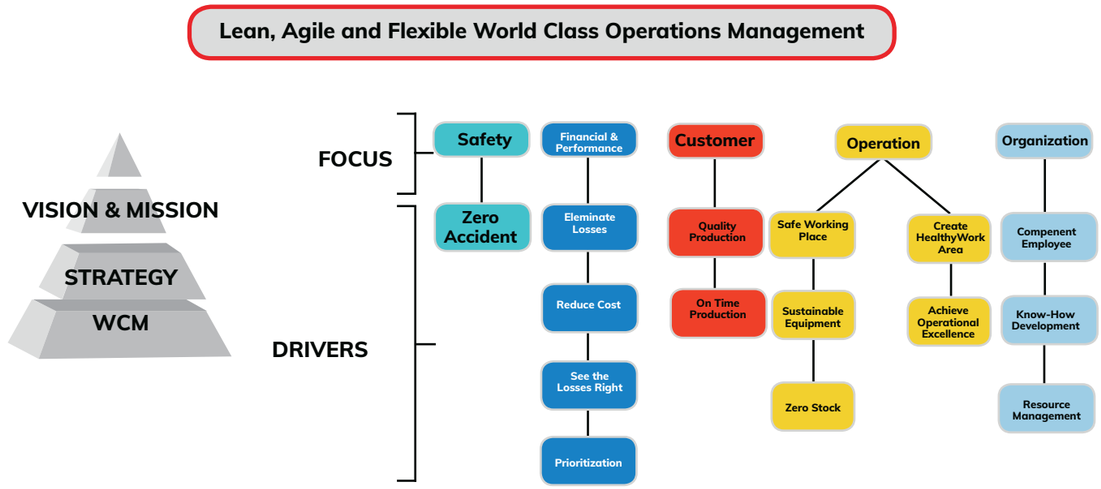
2020 WCM

Karsan Journey to Excellence

In 2020, we adopted the World Class Manufacturing (WCM) system, a systematic way to systematically improve and develop competitiveness in production. Our purpose in choosing WCM is that we want to implement our principles of excellence and continuous improvement in production with a structure that is generally accepted in the international arena.

WCM Model, Basic Principles and Goals





- Work Safety (S): Zero work accidents
- Quality (Q): Bringing production quality to the best level worldwide
- Cost Waste (C): Reducing the costs and increasing efficiency by reducing losses
- Delivery (D): Reduce delivery flow time to meet customer expectations

WCM Management Structure

The Department of Labor and WCM is responsible for the management of these activities in order to effectively carry out WCM activities and monitor them throughout the company.

Our main focus within the scope of WCM is to ensure the participation of all employees. The important thing at this point is to motivate all employees to identify problems and produce solutions. Solving the identified problems quickly, producing permanent solutions, achieving targeted results, continuous improvement, progress and sharing success at the same time are important elements in this methodology.

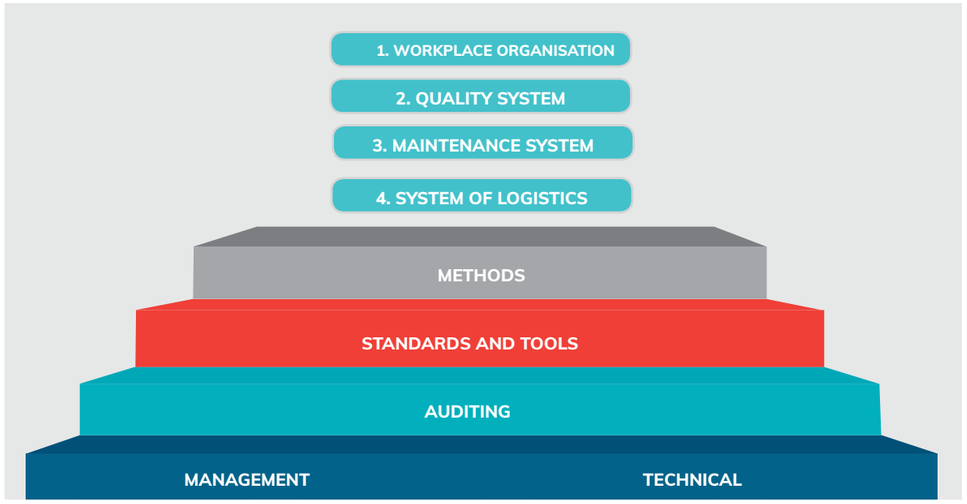
Within the scope of WCM, we manage a total of 20 elements, 10 technical and 10 managerial, with the “7 Steps” methodology.

In WCM, we consider three levels of countermeasures: Reactive, Preventive and Proactive. We define as reactive the measures taken after an incident has occurred, and as Preventive the preventive actions taken to avoid the recurrence of errors by learning from the past. Based on the theoretical risk analysis, the measures taken to avoid a serious incident, called Proactive, aim to eliminate the error at its source before it occurs. All Technical Pillars carry out their work in seven steps. In the approach process that constitutes these steps. As Karsan, our goal is to transition the processes managed with the Reactive approach to the Preventive and Proactive approach throughout the factory.

Within the scope of the 7 Steps methodology management process, our first focus is on occupational health and safety and our goal is to achieve zero occupational accidents. At this point, it is important to motivate all employees to identify problems and produce solutions. Solving the identified problems quickly, producing permanent solutions, achieving targeted results, continuous improvement, progress and sharing success at the same time are important elements in this methodology.

Our second and most important focus is to identify waste and losses completely, to find solutions by taking swift action, and to eliminate waste and loss. In this direction, one of our main goals is to sharpen the eyes of our employees to increase our loss visibility rate and to produce projects for our losses.

Within the scope of WCM, we manage a total of 20 elements, 10 technical and 10 managerial, with the “7 Steps” methodology.



1	Work Safety	2	Waste and Loss Analysis	11	Management Ownership	12	Clarity of Goals
3	Focused Improvement	4	Independent Activties (BB § İYO)	13	WCM Road Map	14	Appointment of Qualified Employees
5	Professional Maintenance	6	Quality Control	15	Organisation Ownership	16	Organisational Competence
7	Logistics	8	Early Equipment / Product Menagement	17	Time and Budget	18	Level of Propafation
9	HR Development	10	The Environment	19	Level of Detail	20	Employee Motivation

In the process of monitoring projects aimed at reducing waste and loss, a meeting area, called the “Compass Room” in the methodology, was created where the solution tool with which the projects are solved and the competencies of the project leaders are monitored, and the follow-up of the projects is carried out in the Compass Room with the participation of the project teams.

In line with the Zero (0) Quality Defects target, in the quality control processes of 2021, we launched the Quality Assurance Matrix (QA Matrix), which prioritizes the quality defects we encounter in internal and external customers. Thanks to this system, we ensure that problems are solved by performing 4M analyzes according to priority ranking.

During the production phase, we eliminated non-ergonomic activities by conducting Muri analyses with the 11-point method in the model area and spread areas we identified within the scope of WCM. In addition, we improved our productivity by performing NVAA improvement studies in the same area.

We developed our Rewarding and Recognition System to spread the WCM culture to all our employees, ensure its sustainability and increase motivation. Thus, we evaluate the best implemented projects and reward project leaders. In addition, every quarter of the year, we select the best team of the quarter within the scope of “World Class League”.

With all these efforts, we conducted the first WCM Audit in 2021 and successfully completed our audit with 19 points.

With all these efforts, we conducted the first WCM Audit in 2021 and successfully completed our audit with 19 points. In July 2022, we conducted the second WCM Audit and increased our current score by 10 points to 29 points. We aim to reach the Bronze Factory level by reaching 50 points in 2023, by providing the basic conditions for competitive production in the short term, together with the audits we have carried out, and to complete the necessary work to reach the Silver Factory level right after. After realizing these steps, we aim to achieve the title of Golden Factory by reaching the level of world leaders in quality, cost and delivery in our sector.”

OCCUPATIONAL HEALTH AND SAFETY

KARSAN

Occupational Health and Safety

With the continuous improvement policy which we have adopted, we evaluate the activities in our working environments by taking into account the changing conditions and circumstances and aim for the better at every step.

At Karsan, we protect the health and safety of our employees in our production facilities and fields of activity, and aim to create a safe environment for our employees in line with Sustainable Development Goal 8: Decent Work and Economic Growth. In this context, the Occupational Health and Safety department, together with the Environment, Energy and Sustainability departments, works under the Deputy General Manager of Industrial Operations and reports to senior management. On the other hand, we are aware that ensuring occupational safety throughout the organization's operations is the shared responsibility of every employee and manager. Therefore, based on the principle of shared responsibility and participation, Karsan adopts an OHS policy that enables all employees to participate in OHS practices and express their opinions openly through systems such as the Kaizen and suggestion system, SMAT (Safety Management Audit and Training) systems, senior management safety patrol (OHS-focused field tours), M-Files risk notification and monitoring program. We develop and implement our OHS system to achieve our Zero "0" Occupational Accident and Zero "0" Occupational Disease targets by ensuring all the requirements we are obliged to comply with, including the ISO 45001 Occupational Health and Safety System Standard in our national legislative requirements and within our organization. With a proactive and preventive approach (before an incident occurs), we identify and effectively manage risks that may cause damage and loss using digital platforms and ensure continuous risk management.

Occupational Health and Safety	2021	2020	2019
Number of Employees	1,062	1,059	1,079
Number of Accidents	21	6	22
Number of Fatal Cases	0	0	0
Number of Occupational Diseases	0	0	0
Number of Days Lost Due to Accident	**128.7**	**14.7**	**121.8**
Accident Frequency Rate	**10,7**	**3,4**	**9,6**
Occupational Disease Rate (ODR)	**0**	**0**	**0**
Lost Day Rate	**0.07**	**0.01**	**0.05**

Table 3: Occupational Health and Safety

With the continuous improvement policy which we have adopted, we evaluate the activities in our working environments by taking into account the changing conditions and circumstances and aim for the better at every step. In this direction, we store our OHS data, which is accessible by all our employees, in the common folder of our company with occupational accident and occupational safety documentation and manage data such as risk analyzes, SMAT audits, Kaizen processes through the M-Files platform. After an occupational accident, our system registration procedure starts with the completion of health checks, continues with GEMBA with the participation of senior management and relevant units, accident investigation, and completion of the S-EWO root cause analysis and action form in light of the findings identified in the field. With the OHS policy we have adopted at Karsan, we follow the actions specified in the form and take the necessary measures to prevent the accident from recurring. We repeat WCM practices and standard external audits of these practices every year and ensure our system reliability through ISO 45001 and WCM Step certification audits conducted by our internal audit experts.

We repeat WCM practices and standard external audits of these practices every year and ensure our system reliability through ISO 45001 and WCM Step certification audits conducted by our internal audit experts.

The SMAT audit practice that we carry out within the scope of WCM activities can be summarized as a training and development-oriented OHS audit study that we conduct with the participation of our managers, office employees and field operators.

SMAT Audits

The SMAT audit practice that we carry out within the scope of WCM activities can be summarized as a training and development-oriented OHS audit study that we conduct with the participation of our managers, office employees and field operators. Within the scope of the practice, our employees who have received SMAT audit training conduct audits in the regions assigned to them in accordance with the audit agenda determined annually, using the systematic SMAT audit cards and question lists prepared. The auditors first observe the operations at the station they will audit. They then interview the operator and provide feedback on occupational safety risks and good practices. We transfer the risks identified after the audit to our web-based quality management system and follow up the risks.

Within the scope of SMAT Audit in 2021;
We determined
185 risks;
277 We carried out inspections.

Occupational Safety Flag Practice

Thanks to our Occupational Safety Flags application, we increase the occupational health and safety awareness and motivation of our employees and contractor company employees and ensure the establishment and spread of an occupational health and safety culture. This practice, which is part of the WCM activities, is based on visualizing the work lines with and without accidents. Within the scope of this practice, we visualize the work lines in our body and assembly lines that have not experienced any accidents in the last 3 months with blue flags, and the work lines that have experienced accidents with orange flags. In this way, we encourage accident-free work by spreading positive competition and motivation.

Thanks to our Occupational Safety Flags application, we increase the occupational health and safety awareness and motivation of our employees and contractor company employees and ensure the establishment and spread of an occupational health and safety culture.

Occupational Health and Safety Trainings

At Karsan, we believe that success in occupational health and safety requires not only system and process reliability, but also keeping this culture alive throughout the organization. To this end, we constantly strive to keep our employees at the required level of knowledge and awareness. The main tool we use for this purpose is training activities. In 2021, we provided 336 employees with a total of 2,853 hours of OHS training. In addition, we carry out the SafetySpot application, which is one of the training and awareness activities we carry out in the field of occupational health and safety. Within the scope of this practice, we share videos and presentations with the participants before all meetings and trainings we organize within the company, regardless of the subject matter, which contain messages to spread the occupational safety culture and raise awareness.

OHS Training	2021			2020			2019		
Occupational Health and Safety Training	Male	Female	TOTAL	Male	Female	TOTAL	Male	Female	TOTAL
Number of Employees Attending OHS Trainings	294	42	336	900	53	953	801	32	833
Total OHS Training Hours Provided	2,541	312.5	2,853.5	8,186	524	8,710	9,004	168	9,172

Table 4: OHS Training

ELECTRIC VEHICLES

KARSAN

ELECTRIC EVOLUTION

Electric Vehicles

e-JEST

With e- JEST, the first product of the R&D studies we started in 2015 in line with our strategy of offering electric, climate-friendly public transport vehicles to the global market, we added a very strong electric vehicle in its own lane to our product portfolio and had a say in this market. The main objective of the project was to produce an electric vehicle with a minimum range of 200 km on a full charge, a charging time of maximum 2 hours in AC, a Class A 22 passenger capacity and all the comfort features and options of the existing diesel vehicle. Based on the JEST diesel platform, we produced e-JEST with changes made in powertrain, electrical-electronic and trim components. Exported e-JEST vehicles have been used for more than 1 million kilometers to date.

ATAK

Right after the e-JEST project, we started the ATAK project in 2018. Our aim was to produce a comfortable vehicle with a minimum range of 300 km on a full charge, a charging time of maximum 3 hours on DC, and a Class I 52-passenger capacity. With the project, we produced an 8m, 11 tones capacity electric vehicle for the first time. We also broke new ground by carrying out the electric motor, battery, electronic software and styling work of the vehicle.

e-ATA

Following our JEST Electric and ATAK Electric vehicles, we launched the ATA Electric project in the reporting period with the aim of expanding the product range with the electric heavy commercial passenger bus segment. With the project, we are developing a vehicle with a modern design, competitive and compatible with different markets in the 12-meter bus segment. e-ATA is a 100% electric, fast passenger loading and unloading, low-floor, quiet, efficient, economical and environmentally friendly transportation solution developed with our own engineering and design capabilities, and we have made it ready for mass production in 2021 and signed Turkey's largest electric bus export agreement. As Karsan, we are the first and only company in Europe to have the entire product range from 6m to 18 meters by adding the e-ATA vehicle in 10-12 and 18m lengths to our product range.

Regeneration Technology

Regeneration is the technology that allows the vehicle's available kinetic energy to charge the batteries through the electric motor when the foot is taken off the accelerator pedal and the brakes are not applied. In this way, vehicle ranges can be significantly increased. The regeneration technology we have developed saves 15% energy in standard drives from 100% charge to 0%. In this way, the vehicle can be used for an average of 45 km more without recharging. In this way, energy savings are achieved and the time of use on the vehicle's route is increased.

AUTONOMOUS ATAK Electric

With this project, which we launched in 2019, we aimed to develop a pioneering product in its segment by adding advanced driver guidance (ADAS) and Level-4 autonomous driving features to the ATAK Electric vehicle. Level-4 autonomous driving feature requires a vehicle to be able to "perform all of the vehicle's dynamic driving functions within a defined area without driver assistance". In this context, perhaps the biggest change that must be made on the vehicle is that the vehicle must be able to turn the steering wheel automatically through CAN communication when necessary, without being subjected to mechanical force. For this purpose, we equipped the vehicle with an electric steering system called "Drive by Wire" technology. The entire design and engineering of the vehicle was carried out by Karsan teams, and the software required for autonomous driving was developed in cooperation with ADASTEC, which is also a Turkish company.

All test work was completed during the reporting period, and the Autonomous ATAK Electric is ready for mass production as of 2021. The Autonomous e-ATA, which will be a first in its segment in the European and US markets, has significant potential. Instead of the fully autonomous Level-5 technology, for which there is currently no legal and regulatory infrastructure for its use worldwide, the Level-4 Autonomous ATAK Electric, which is already available in many countries and is more likely to become widespread in the short term, provides driverless navigation under supervision in a defined environment and route, and is compatible with public transportation modes and allows use in the same traffic environment with vehicles with drivers. With its advanced technology, the Autonomous e-ATAK has an infrastructure that can be equipped with Level-5 driving features. With the learning we have realized with the Autonomous e-ATAK project, we aim to produce pioneering autonomous electric vehicles in other segments as well. We believe that the sale of the Autonomous ATAK Electric to Romania immediately after its launch and the fact that exports to the USA are also on the agenda are the most important indicators of the potential of Autonomous e-ATAK and autonomous vehicles in the near future.

R&D and INNOVATION

KARSAN

R&D and Innovation

With the vision of “One Step Ahead in the Future of Mobility”, we carry out the design, development and production processes of innovative, environmentally friendly and sustainable vehicles accepted in the Turkish, European and North American markets at the Karsan R&D Center.

At the Karsan R&D Center, we produce 100% electric vehicles that respond to the social, environmental and governance needs of the era through international strategic partnership agreements. With the

vision of “One Step Ahead in the Future of Mobility”, we carry out the design, development and production processes of innovative, environmentally friendly and sustainable vehicles accepted in the Turkish, European and North American markets at the Karsan R&D Center. We aim to become a market-leading Innovation Center by 2027 with our policies of using recycled products in our production processes, developing and using parts that reduce the weight of vehicles, and reducing the carbon and water footprint. In this direction, we breathed new life into public transportation with designs focused on creative innovations developed in our R&D center, while reducing our carbon footprint by approximately 30% thanks to the environmentally friendly products we produce on our way to reaching the net zero carbon target. By reducing carbon emissions based on our operational activities, we realized practices that will set an example for the awareness of creating a sustainable environment. At Karsan, we turn the focus of strong financing to the digitalized world with our value-creating, continuously developing global and competent organizational structure. We increase our competitiveness with the infrastructure equipment we have created in our R&D and innovation activities.

Average hours of training per employee	MALE			FEMALE		
	2021	2020	2019	2021	2020	2019
Turkey	15	14	25	28	32	53

Table 5: Average Hours of Training per Gender

While adapting to future mobility technologies, we continue to shape the sector with our innovative DNA by developing electric autonomous vehicles with the help of our international collaborations. In this direction, we are conducting sustainability-centered studies to increase our product range and diversity. One of our primary sustainability efforts is the development of transportation forms produced with new generation fuel technologies instead of internal combustion engines. Zero-carbon hydrogen fuels burned with oxygen, which are among alternative fuel technologies, are obtained from renewable energy sources such as water electrolysis and solar thermochemistry. In line with our sustainability goals of achieving clean energy, researching renewable energy sources and investing in clean energy, the hydrogen fuel we will use in fuel cells in 2022 shows that it will be possible to save much more fuel compared to the combustion engine.

Average hours of training per employee	TOTAL AVERAGE		
	2021	2020	2019
Turkey	16	15	27

Table 6: Total Average Hours of Training per Employee

Year	Total Training (Employee* Hours)	Average training hours per employee (Hours)	Total Number of Employees
2021	16.593	16	1.062

Table 7: Total Training Hours

As Karsan, we aim to increase the size of our staff by adding new personnel to our experienced, knowledgeable and specialized staff, which is our most important investment while leading the sector with innovative projects. In this direction, while we continued our project work with 60 researchers in 2020, we expanded our staff in 2021 and reached the number of 100 researchers. The trainings we provide in order to develop and support our expert staff in technical and social fields are determined by our personnel every year in a way to serve the career development plan of our personnel. One of the most important investments in our budget is the investment expenditures allocated to the trainings given to the personnel we employ, and our training expenditures for 2021 reach approximately 719,556 TL.

As Karsan, we aim to increase the size of our staff by adding new personnel to our experienced, knowledgeable and specialized staff, which is our most important investment while leading the sector with innovative projects.

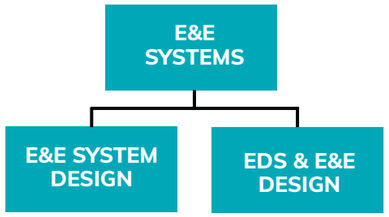
Karsan R&D Center Management Process

- **Creating the Project Plan**
  - Preparation of the preliminary scope, timetable and budget of the project
  - Literature, patent and competitor searches
  - Target market research
  - Identifying the innovative management of the project
  - Determining the equipment, resources and implementation area required for the project
- **Conceptual Feasibility**
  - Defining the needs that determine the subject of the project
  - Determination of the project plan and budget
  - Identification of the project team
  - Defining the expected objectives or benefits of the project with concrete and measurable values
  - Defining conceptual design studies
  - Creation of critical/safety parts lists
  - Preparation of the project's virtual and physical test and verification plan
- **Economic Feasibility**
  - Updating the scope, timeline and budget of the project
  - Determination of project design parts list
  - Determining the objectives of project sub work packages
  - Updating the benefits of project objectives
  - Preliminary design studies
  - Creation of prototype manufacturing plan
  - Preparation of the project's risk plan
- **Project Approval Phase**
  - Conducting preliminary virtual analysis tests
  - Prototype production
  - Updating the scope, timeline and budget of the project
- **Engineering Approval Phase**
  - Elaboration of the work of the designs
  - Current level prototype production
  - Performing physical tests
  - Completion of manufacturability inquiries
  - Design freeze

R&D Directorate

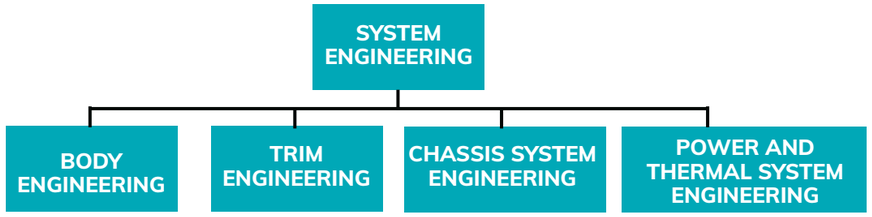
Our R&D Directorate includes E&E systems, systems engineering, product and project engineering, product and cost engineering and industrial design units.

E&E Systems



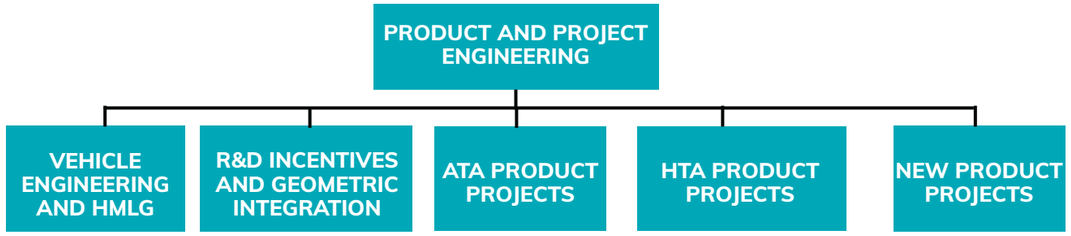
E&E System and EDS & E&E designs, which form part of our R&D directorate, are our units that design in-vehicle systems. E&E System Designs, on the other hand, is responsible for all software-related processes in our vehicles, batteries, battery recharging, other auxiliary units such as PDUs and converters. Our EDS & E&E Designs unit is responsible for conducting studies on the electrical installations used in the vehicle architecture, designing and operating the electrical installations.

System Engineering



The System Engineering unit, which includes Body, Trim, Chassis System and Power and Thermal System Engineering, constitutes another unit of our R&D directorate. While Body Engineering designs the vehicle without BIW paint, it also tests its designs with the help of virtual analyzes to improve the vehicle skeleton. Trim Engineering is responsible for developing the design of plastic and metal parts inside and outside the vehicle, such as seats, grab rails, buttons, windows, exterior covers and side panels. Chassis and Systems Engineering works on the development of parts of the vehicle such as brakes, steering, tires, axles and air lines. Power and Thermal Systems Engineering is working on the development of the vehicle's air conditioning, heating, cooling, ventilation and fire-fighting systems.

Product and Project Engineering



We have Product and Project Engineering, Vehicle engineering and HMLG, R&D incentive and geometric integration, Ata product projects, HTA product projects and New product projects in our R&D directorate. Vehicle and HMLG Engineering, all the controls that the vehicle goes through from the prototype stage to the mass production stage are carried out by this unit. R&D incentive and geometric integration carries out the controls of the compliance of the designs developed by the designers with the regulations. The unit ensures that R&D Center activities are accurately and completely reported to the ministry and that audits are successful. Thanks to the ancestor product projects, support is provided for tenders and new product projects through efforts to develop long commercial vehicles, and the product range is expanded through projects involving the development of new products.

Product Cost Engineering

Product Cost Engineering, on the other hand, is the unit responsible for the cost calculation of the vehicles developed after the R&D Center's studies, producing solutions for cost reduction in project studies and carrying out cost-reducing activities.

Industrial Design

While creating and developing new products and ideas, our industrial design unit focuses on improving not only the aesthetic perception but also the functionality of the product. This unit aims to create a strategic competitive environment by producing products with high added value and low costs. In addition, we aim to brand ourselves with the Karsan line and create a family with a common design language for our products. The industrial design process includes research, analysis, idea creation and sketches, hand renderings, model and production integration, presentations and approval steps in the process.

Finally, we are proud to announce that the 'Karsan Autonomous ATAK Electric', a Level 4 autonomous electric bus, is the first autonomous technology bus in Europe to carry passengers in the city and has started its public transportation service on the streets of Norway in the last days while our sustainability report was being prepared for publication.

While creating and developing new products and ideas, our industrial design unit focuses on improving not only the aesthetic perception but also the functionality of the product.

CLIMATE CHANGE

KARSAN

Climate Change and Environmental Management

In 2021, the Turkish Grand National Assembly ratified the Paris Climate Agreement, which entered into force in 2016 and aims to keep the global temperature below 1.5°C.

As revealed by the Global Risks Report published by the World Economic Forum, “Climate action failure”, “Loss of biodiversity and ecosystem”, “Human environmental damage” and “Extreme weather events” are the top environmental risks according to the impact ranking of global risks.

In 2021, the Turkish Grand National Assembly ratified the Paris Climate Agreement, which entered into force in 2016 and aims to keep the global temperature below 1.5°C. In addition, with the European Green Deal, which is related to the market where approximately half of our country’s exports are realized, it sets out to develop strategies and update legal regulations in many areas such as industry and infrastructure, agriculture, digitalization and finance with the goal of becoming climate neutral by 2050. This brings about a global reorganization and transformation phase. The goal of reducing greenhouse gas emissions resulting from transportation activities and becoming carbon neutral, which is included in the Paris Climate Agreement, is seen as an important step in identifying and regulating the environmental risks arising from automotive sector activities in the transition to a carbon-free economy. The projection of global regulations in the sector is the transition to electric and alternative fuel vehicles and the creation of infrastructure for alternative fuel vehicles. In line with the developments in the automotive sector, Karsan manages its production activities in line with the World Class Manufacturing (WCM) Environmental Pillar, a system that brings together the best practices for businesses to systematically carry out their activities, and the ISO 14001 Environmental Management System certificate. WCM Environmental Pillars include the efficient use of resources such as water, energy and raw materials, the avoidance of hazardous raw materials and the reduction of the amount and pollution rates of all wastes during production. At Karsan, we continuously improve the environmental impacts that may occur in our production processes within the scope of WCM Environmental Pillars and aim to minimize negative impacts by taking action with a proactive approach before the risk occurs. As Karsan, we support the participation of all our employees in autonomous environmental risk and opportunity activities through the internal audit system we have established within the scope of WCM. In this context, the practices of Environmental Pillars in the official WCM audit conducted in 2021, proving the effectiveness of the system. We established our Environmental Management System in 2004, which we developed according to the ISO 14001 standard, which is another basic indicator of our environmental management, and with ISO 14001, we continuously monitor the environmental risks and impacts that may occur in production and supply processes, taking into account the principles of sustainability.

The audits conducted at Karsan within the scope of Environmental and Energy Management are divided into two categories: internal and external audits. External audits are conducted by the Ministry of Environment and Urbanization twice a year for ISO 14001 and ISO 50001 and once a year within the scope of the legislation. When we analyze the audits we have undergone in the last three years, including ISO 14001 and ISO 50001 audits, we have not experienced any major or minor nonconformities. Regarding internal audits, Karsan has a pool of internal auditors from each unit as required by the ISO 14001 and ISO 50001 management

Environmental and Energy legislation, ISO 14001 Environmental Management System, ISO 50001 Energy Management System, ISO 14064 Greenhouse Gas Emissions Calculation Standard, GHG Protocol Standard and World Class Manufacturing (WCM) Methodology Environmental and Energy Pillar activities constitute the infrastructure of our environmental activities.

We develop our environmental management activities within the framework of our Karsan Environment and Management Strategy, in a manner that fully implements management systems and legislative activities, realizes a zero waste management system, reduces water, wastewater and carbon emissions, and adopts recycling.

systems. In this context, an internal audit process is initiated for all units within the scope of management systems in September every year. In addition, EMAT (Environment Management Audit and Training) audits, in which we participate as part of the WCM, are conducted with an internal audit team of 112 people.

Environmental and Energy legislation, ISO 14001 Environmental Management System, ISO 50001 Energy Management System, ISO 14064 Greenhouse Gas Emissions Calculation Standard, GHG Protocol Standard and World Class Manufacturing (WCM) Methodology Environmental and Energy Pillar activities constitute the infrastructure of our environmental activities. In the environmental management system, the subjects of our energy, environment and sustainability activities are managed by the Environment and Energy Engineer reporting to the Assistant General Manager and Technology and Maintenance Manager. In addition, Environmental and energy management targets of all units within our organization are reported to all units on a monthly basis.

We develop our environmental management activities within the framework of our Karsan Environment and Management Strategy, in a manner that fully implements management systems and legislative activities, realizes a zero waste management system, reduces water, wastewater and carbon emissions, and adopts recycling. In 2021, after establishing our Sustainability Organization structure, we regulate our environmental and climate policy and develop strategies within the scope of our new policy in the environmental management process. With the strategies we have developed, we integrate the issues of transition to climate-friendly operation management, end-to-end operational management and transition to a lean, flexible and value-adding business model into our environmental management. In 2021, we started tracking carbon emissions and identified climate risks and opportunities through Karsan Environment and Climate Change, which we established. We have shaped the main risk and opportunity areas of our changing Environment and Climate Policy within the

Environmental Management Expenditures (TL)	2021	2020	2019
	627,333	802,287	902,333

Table 8: Environmental Management Expenditures

framework of energy management, greenhouse gas emissions, water consumption, use of environmentally friendly materials, waste management and recycling, vehicle emissions and fuel efficiency, and vehicles with reduced environmental impact.

We aimed to set out the main principles of Karsan's strategic approach to conducting company operations, designing products and services in line with the management of climate and environmental risks, and to inform our stakeholders accordingly. We identified the sustainability projects we aim to realize in 2022.

Finally, our Karsan Environmental Management System expenditures include waste water treatment, waste water analysis, waste disposal, environmental management systems and other expenses. In addition, we underlined the importance we attach to environmental management by spending a total of TL 627,333 in 2021 to improve the environmental management system. In addition, the preparation of environmental reports such as Corporate Carbon Footprint, Mass-VOC per Vehicle, and the establishment and certification of the ISO 50001 Energy Management System in 2021 are also important expenditure items.

In 2021, we started tracking carbon emissions and identified climate risks and opportunities through Karsan Environment and Climate Change, which we established.

Energy Management

In line with the energy management standards, global regulations and expectations in the automotive industry, Karsan is committed to continuously reducing our energy intensity, developing energy efficient practices in product design and procurement, and promoting the use of renewable energy sources as part of the Karsan Energy Policy.

The structural adjustments in foreign trade in line with the "goal of becoming a carbon neutral continent by 2050" set out in the European Green Deal are closely related to Turkey, which exports approximately 80% of its automotive exports to EU countries. For the continuity of exports in the automotive industry, the transformation and regulations in the EU market must be implemented, product standards must be improved and the circular economy model must be adopted. According to the Automotive Industry Association (OSD) 2020 Turkey Automotive Main Industry Sustainability Report, a 90% reduction in transportation-related greenhouse gases by 2050 is necessary to achieve the "carbon neutral EU in 2050" target set by the European Commission. In line with the energy management standards, global regulations and expectations in the automotive industry, Karsan is committed to continuously reducing our energy intensity, developing energy efficient practices in product design and procurement, and promoting the use of renewable energy sources as part of the Karsan Energy Policy. We aim to fully comply with energy legislation and the energy targets we have set for ensuring economic and environmental sustainability and continuity in foreign trade. To this end, we put the ISO 50001 Energy Management System into effect in March 2021 and started to carry out our energy activities in a systematic manner. We also monitor our energy and environmental management activities through various tools such as the SCADA Monitoring System. With analyzers connected to each production unit, we aim to control the energy consumption of all production and auxiliary units from the SCADA system.

Energy Consumption (GJ)	2021	2020	2019
Total Electricity Consumed	32,050	31,798	39,337
Natural Gas	27,467	38,106	34,566
OVERALL TOTAL	59,517	69,904	73,903

Table 9: Energy Consumption

With the SCADA Monitoring System and various energy management systems, Karsan focused on energy loss savings in 2021. We achieved a total energy improvement of 6% by saving 552 MWh/year of natural gas and 611 MWh/year of electricity. In addition, we reduced our energy consumption per unit of production by 13% from 20 GJ/unit in 2020 to 17.4 GJ/unit. We are purchasing all our energy needs.

With the World Class Manufacturing (WCM) system, which we implement in line with the energy management system, we focus on the causes of energy losses while ensuring that all employees instantly record energy losses in the system through waste and loss analysis. In this context, we evaluate the activities carried out in the paint shop unit as one of the causes of energy loss and produce solutions for the losses we identify the source of. For example, in order to ensure energy efficiency, we added inverters to the circulation pumps of the cataphoresis plant and achieved 362 MWh/year energy improvement during hours when the production process is inactive. Another example of energy savings we made in the paint shop unit is; thanks to the heating line temperature optimization, we saved 70 MWh of natural gas by ensuring natural gas efficiency in weather conditions lower than 22°C. Finally, we achieved 165 MWh/year of natural gas savings by optimizing energy efficiency with the improvements we made in the vehicle waiting area.

In 2021, we reached 100% on the Jest line, 99% on the ATAK Electric line, and 90% on the OSB TTF line. In addition, in 2021, we accelerated our work on Renewable Energy Technologies. As a result of the feasibility report we conducted, we identified a Solar Energy installed power potential of approximately 6.7 MW and started working to utilize this potential. Thanks to the project, which is planned to be finalized in 2022, we will be able to meet 80% of the current energy need with this facility if 100% of the installed power is utilized, considering the average energy consumption of the last 3 years. In 2021, we received Efficiency Enhancing Project (EEP) support and 30% grant support from the Ministry with another renewable energy project that we aim to complete in 2022.

With the World Class Manufacturing (WCM) system, which we implement in line with the energy management system, we focus on the causes of energy losses while ensuring that all employees instantly record energy losses in the system through waste and loss analysis.

Emission

In order to comply with global emission regulations, Karsan has made various adjustments and improvements in our energy and emission management as well as in our production process.

In the context of greenhouse gases from transportation, the European Green Deal aims to introduce air pollutant emission standards for vehicles with internal combustion engines and to ensure that all cars, buses, trucks and lorries in Europe have zero emissions by 2050.
In order to comply with global emission regulations, Karsan has made various adjustments and improvements in our energy and emission management as well as in our production process. The "Milkrun Project", which aims to unify our supplier routes and reduce route-related vehicle emissions (Scope 3 emissions) through route adjustment efforts, involves increasing our domestic supplier ratio and reducing our carbon emissions from procurement. Thanks to this project, instead of traveling back and forth between the main factory and suppliers, our supplier vehicles stop at more than one supplier with the help of a route, return to the main factory by loading the materials that need to be picked up into the vehicle after returning the empty crates. In this way, we reduce our environmental impact by optimizing the route. With this project, we aim to increase the number of suppliers in 2022 and reduce our carbon emission rates by 1% after 2023.

Greenhouse Gas Emissions (ton CO_2e)	2021	2020	2019
Category 1	1,454	1,815	2,521
Category 2	4,015	3,772	4,665
TOTAL (Category 1+ Category 2)	**5,469**	**5,587**	**7,186**
Greenhouse Gas Emissions (ton CO_2e) / Production (ton)	**2021**	**2020**	**2019**
Kategori 3	25.13	890	880

Table 10: Greenhouse Gas Emissions

Air Pollution Emissions (kg)	2021	2020	2019
NOx	4,629	4,873	5,346
SOx	54.72	42.27	72.2

Table 11: Air Emissions

Biological Diversity

At Karsan, we take care to protect biodiversity and ecosystem services while carrying out emission activities. Our operational areas are located within the boundaries of OIZs where there is no natural life or ecosystem services and intense biodiversity. In addition, our Akçalar operation area is located 5 km away from Uluabat Lake, which is a eutrophic (abundant food) lake in terms of biological production and protected by the International Convention for the Protection of Wetlands RAMSAR. In all new projects and activities we undertake in this context, we strive to act sensitively towards the lake ecosystem, natural life and biodiversity in accordance with the EIA Regulation, and we develop strategies in line with the sensitive biodiversity structure of Uluabat Lake.

Our operational areas are located within the boundaries of OIZs where there is no natural life or ecosystem services and intense biodiversity.

Waste Management

In the waste management system, we separate our wastes generated during the production phase and in offices into hazardous waste, recyclable waste and domestic & industrial non-hazardous waste.

In Karsan's waste management system, we apply the 5R principle, which includes refusing waste at its source, reducing, reusing, recycling and recovering energy. In addition to the 5R Principle, we have implemented the Zero Waste Management Principle to prevent waste that may be generated after the production process. In the Zero Waste Management Principle, our most important priority is to eliminate waste at its source, and if this is not possible, to reduce the amount of waste, reuse, recycle and recycle it, and ensure that the amount of hazardous and non-hazardous waste generated reaches zero by using one of the energy recovery methods.

In the waste management system, we separate our wastes generated during the production phase and in offices into hazardous waste, recyclable waste and domestic & industrial non-hazardous waste. We also collect hazardous wastes identified as a result of the sorting process and utilize them in energy recovery and reuse processes. While we recycle 100% of the recycling waste generated within the scope of waste management, we utilize domestic industrial non-hazardous waste within the scope of energy recovery. In addition to the waste management policy, we also observe the commitments in paragraphs k and l of the Environment and Climate Change Policy regarding waste management in our actions within waste management. Environmental and Climate Change Policy paragraph k: "In line with the responsible use of materials approach, the Company supports the reduction of material consumption; increasing the use of "recycled", "recovered", "recoverable" and "materials with reduced environmental impact"; and taking into account the "circular economy" approach in material planning processes. Subparagraph l of the Environment and Climate Change Policy states: '' It considers the value chain approach in the waste method, ensures that waste is minimized by establishing applicable waste management procedures, that the wastes generated are separated at the source, that they are first recovered at the highest rate, and that they are disposed of with the most environmentally friendly options when recovery is not possible.'' Includes the statement.

At Karsan, we integrate reducing material consumption by planning with the Circular Economy model and increasing the use of recycled, reclaimed, recoverable and environmentally friendly materials with our waste management policy under the "Responsible Material Use" approach. With the "Packaging Improvement Project" we have developed in line with the responsible use of materials approach, we aim to significantly reduce packaging waste by replacing disposable cardboard boxes used in the logistics of the products we procure from our suppliers with recyclable metal crates in 2021. Within the scope of the project, we saved 580 kg of cardboard/year of paper and cardboard packaging by switching from using cardboard boxes to recyclable crates in the distribution of materials such as driver seats, disabled ramps and sunroofs used in the Jest line, while we saved 420 kg of cardboard/year by eliminating cardboard boxes in the interior ceiling parts of the OSB TTF line. As Karsan, we recycle the electronic waste of Karsan employees with the 'Let Your Electronic Waste Support Education' campaign we carry out in partnership with TEGV. Within the scope of material planning by adopting the Circular Economy model, we recycled 100 kg of electronic waste in the hazardous waste category. We also contributed to education by donating the proceeds to TEGV.

We define the "Value Chain" approach to waste management, another commitment in the Environment and Climate Change policy, as "minimizing the wastes generated as a result of the production process, separating the wastes at their source, recovering them at a high rate, and disposing of them in a manner sensitive to biodiversity and ecosystem services when recovery is not possible". In order to realize a biodiversity-sensitive production process within the scope of the value chain approach, we reduced our total amount of hazardous waste per vehicle by 1.9 kg/vehicle through environmental regulations such as switching to the use of water-based chemicals instead of VOC-based chemicals, improving chemical filling and use apparatuses.

We define the "Value Chain" approach to waste management, another commitment in the Environment and Climate Change policy, as "minimizing the wastes generated as a result of the production process, separating the wastes at their source, recovering them at a high rate, and disposing of them in a manner sensitive to biodiversity and ecosystem services when recovery is not possible".

WASTE COMPONENTS (tons)	2021		2020		2019	
	Waste Generated	Waste Diverted to Recovery/ Recycling	Waste Generated	Waste Diverted to Recovery/ Recycling	Waste Generated	Waste Diverted to Recovery/ Recycling
Paper	268.25	268.25	222.45	222.45	420.6	420.6
Electronics	7.286	7.286	0.026	0.026	4.487	4.487
Plastic	125.36	125.36	102.65	102.65	182.8	182.8
Glass	0	0	0	0	0	0
Metal	376.477	376.477	311.46	311.46	544.65	544.65
Industrial Sewage Sludge	7	7	18.04	18.04	14.51	14.51
Domestic Sewage Sludge	0	0	0	0	0	0
Other (hazardous)	126.27	126.27	143.808	143.808	234.04	234.04
Other (non-hazardous)	408.95	408.95	405.49	405.49	237.614	237.614
TOTAL	**1,319.593**	**1,319.593**	**1,203.924**	**1,203.924**	**1,638.701**	**1,638.701**

Table 12: Waste Components

WASTE DIVERTED TO DISPOSAL	2021	2020	2019
Hazardous Waste	**Ton**	**Ton**	**Ton**
Incineration (with energy recovery)	79.71	105.76	166.09
Sanitary landfill	0.041	0.005	0.014
Total	**79.751**	**105.765**	**166.104**
Non-Hazardous Wastes	**Ton**	**Ton**	**Ton**
Incineration (with energy recovery)	140.7	143.24	185
Total	**140.7**	**143.24**	**185**

Table 13: Waste Diverted to Disposal

WASTE NOT DISPOSED OF THROUGH THE RECOVERY PROCESS	2021	2020	2019
Hazardous Waste	**Ton**	**Ton**	**Ton**
Recycling	30.212	18.272	58.326
Other recovery operations	23.467	3.758	28.57
Total	**53.679**	**22.03**	**86.896**
Non-Hazardous Wastes	**Ton**	**Ton**	**Ton**
Recycling	1,034.308	904.836	1,652.554
Total	**1,034.308**	**904.836**	**1,652.554**

Table 14: Waste Not Disposed of Through Recovery Process

Since 2019, the amount of waste per 420.6 kg/item production has decreased by 9.3% to 381.3 kg/item.

We monitor waste management activities through internal communication channels and Karsan Ecology Report, Karsan Non-Hazardous Waste and Hazardous Waste Disposal Reports. In addition, we report our waste activities to the Ministry of Environment, Urbanization and Climate Change on an annual basis, and we also notify the Ministry about special waste categories such as End-of-Life Vehicles (ELVs), Medical Waste and Waste Oil. We report the amount of hazardous and non-hazardous waste to the Ministry through common folders that are accessible to all our employees. We report our monthly amounts of water and wastewater consumed per vehicle, energy per vehicle, hazardous waste per vehicle and recyclable waste per vehicle on a unit basis, enabling units and all our employees to follow up on the Environment, Occupational Health and Safety and Energy dashboards. Finally, within the scope of waste management, we have ISO 14001:2015, Environmental Management System and Zero Waste Certificate with Industrial Waste Management Plan Approval from Bursa Provincial Directorate of Environment, Urbanization and Climate Change. We also have a “Hazardous Material Activity Certificate” due to the use of hazardous materials and our HOSAB2 Factory received a “Hazardous Material Activity Certificate” in 2021.

Since 2019, the amount of waste per 420.6 kg/item production has decreased by 9.3% to 381.3 kg/item.

Water Managemenet

At Karsan, we follow global developments in water resources and water use and take our water management actions with an efficient and conscious approach.

Extreme weather events, damage to ecosystem services and the pressure on water resources caused by the increase in global temperature are important indicators of our universal problem, the climate crisis. According to the United Nations World Water Development 2021 report, water use has been increasing by 15% in the last 100 years and by an average of 1% each year. Companies in the automotive sector need to adopt a responsible water management approach in their production activities. Investments, improvement activities and the use of the best technologies, especially in paint shops, increase the efficiency of water use, while the importance of projects to improve the reuse of water emerges. At Karsan, we follow global developments in water resources and water use and take our water management actions with an efficient and conscious approach. We obtain the water we use in our operations from wells located in our production facility. In 2021, we reduced our water amount per production by 1.2% from 12.7 m^3 / piece in 2020 to 12.55 m^3 /piece.

Water withdrawal by source (m^3)	2021	2020	2019
Groundwater	45.596	36.913	63.399
Total Water Withdrawal	**45.596**	**36.913**	**63.399**

Table 15: Water Withdrawal by Source

Water discharge by source (m^3)	2021	2020	2019
To the sewer	16.995	15.750	28.030

Table 16: Water Discharge by Source

We use an innovative technology, Reverse Osmosis, in our water production facilities. In this context, we provide water of constant and desired quality to the production lines and prevent instant deterioration, wastewater and the use of cleaning chemicals. We saved 1.56 m^3 per vehicle by monitoring the water we use in the paint shop through the analysis of the laboratory unit. We have started feasibility studies to return the low-quality water from the Reverse Osmosis unit back to production. We discharge the wastewater we use in production into the wastewater channels specified in the necessary permits after reaching the acceptable threshold values specified in the legal regulations in the treatment plants. In this context, we achieved our 2020 target of reducing the amount of wastewater sludge generated in wastewater treatment by 48.8% in 2021. Thus, we reported the amount of wastewater sludge from 0.9 kg/m3 in 2020 to 0.46 kg/m^3 in 2021. Finally, within the scope of the environmental management system SCADA, we monitor our water production and wastewater values with weekly and monthly analyzes and share the results with all employees. In this way, we contribute to our goal of responsible production and consumption in water consumption.

We achieved our 2020 target of reducing the amount of wastewater sludge generated in wastewater treatment by 48.8% in 2021. Thus, we reported the amount of wastewater sludge from 0.9 kg/ m3 in 2020 to 0.46 kg/m3 in 2021.

Supplier Selection

We attach importance to the audit of our suppliers that we cooperate with for a quality and safe production chain. We expect our direct suppliers to meet certain production, quality, management and working criteria.

As Karsan, we derive our strength from our suppliers. We believe in the importance of working with local suppliers for a more sustainable value chain. In 2021, we increased our local supplier ratio to 80% and work with a total of 1,393 suppliers, 1,132 of which are local. Local suppliers account for more than half of our supplier payments made.

Number of Suppliers	2021	2020	2019
Total	1.393	1.337	1.503
Local	1.132	1.074	1.236

Table 17: Number of Suppliers

Supplier Amounts (TL)	2021	2020	2019
Total	2.250.070.229	1.279.065.866	1.225.136.800
Local	1.194.160.653	632.527.236	585.183.050

Table 18: Supplier Amounts

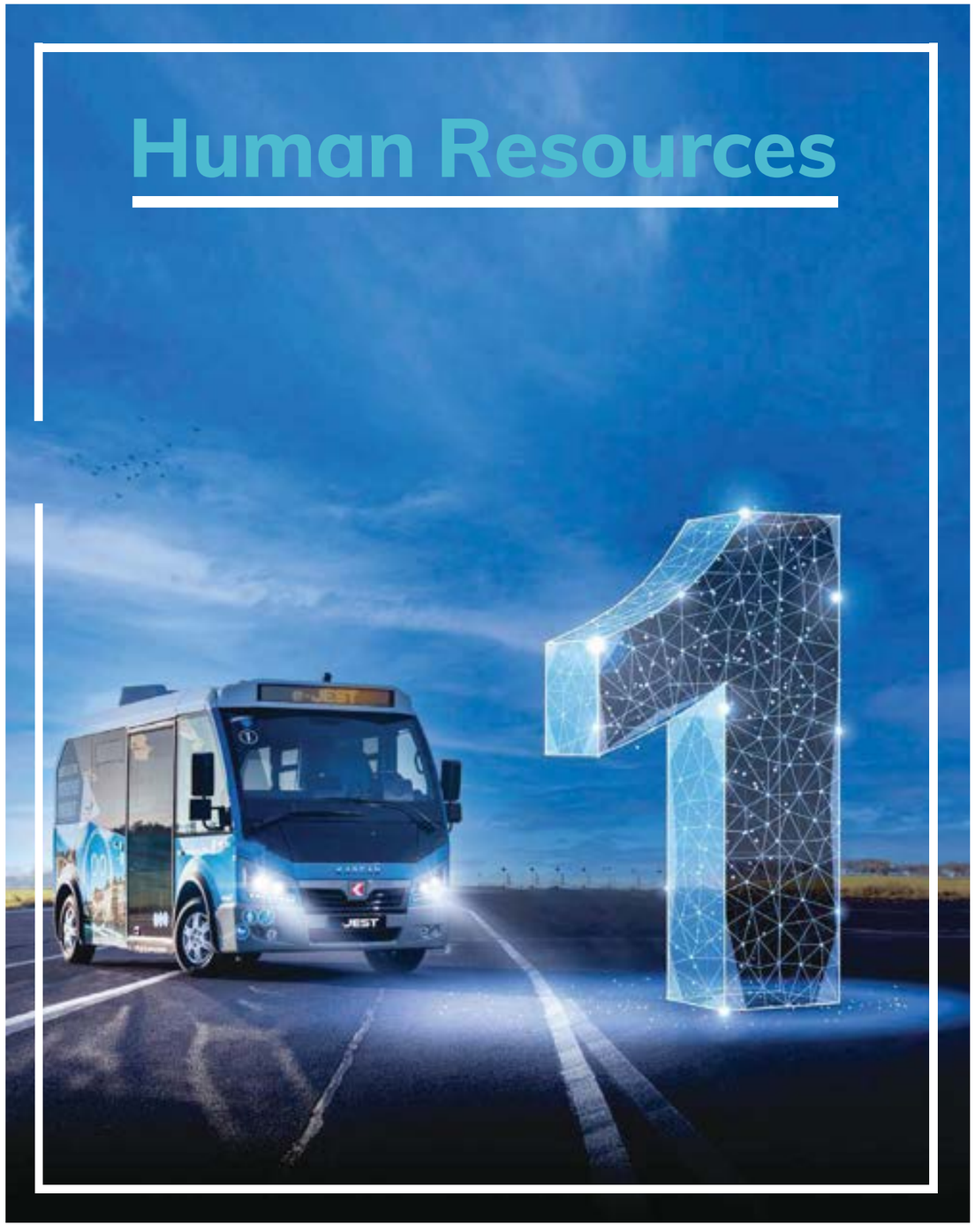
We attach importance to the audit of our suppliers that we cooperate with for a quality and safe production chain. We expect our direct suppliers to meet certain production, quality, management and working criteria. We pre-audit supplier candidates to determine whether they meet these criteria and evaluate their compliance with environmental, occupational health and safety, working conditions, quality, production and logistics norms, management, method and engineering capacity, competitiveness level and financial structure. We assess their compliance with various systems, particularly IATF 16949 and ISO 14001. In addition, before starting to work with a company, we can question our suppliers with the supplier self-assessment form, which is filled out and then audited,

and we also require the GADSL Declaration and Social Responsibility form for the company to be registered in the system.

HUMAN RESOURCES

KARSAN

Human Resources



As Karsan, we act with the principle of “People-Oriented Approach” at every stage of production and management, and with the Karsan Human Resources Policy, which aims to grow gradually with our employees and all other stakeholders, we aim to create employment with Karsan company, values and competencies by using techniques such as competency-based interviews and various interview methods such as technical interviews to help select the most accurate and most suitable candidate for the job in order to meet current and future workforce needs.

As of 2021, our Human Resources Policy is based on “Compliance with applicable national legal regulations, standards published by the International Labor Organization (ILO), the Universal Declaration of Human Rights, and United Nations conventions. To ensure the continuity of this compliance, we have taken an approach worthy of sustainable human resources by including the article “to continuously improve practices”. We have supported our claim on Sustainable human resources by adding two more articles about not employing child labor and daily and weekly working hours. In this direction, we have included the eighth article of the Sustainable Development Goals, “Decent Work and Economic Growth”, “Complying with the daily and weekly working and rest periods determined in the Legal Legislation and Collective Bargaining Agreement” and “Not employing workers under the age of 18, acting in accordance with the procedures and principles of employing young workers, not employing forced and involuntary workers” in our Human Resources Policy.

Another issue that we want to set an example in our Human Resources approach is to provide equal opportunities for our male and female employees. With “Gender Equality” Goal 5, we make remuneration within the Karsan remuneration policy regardless of gender, taking into account the job size and level of all our employees. In addition to this, due to the low number of women in our management, while the ratio of female to male employees in general WC is 82%, we increased the ratio of female employees’ remuneration to male employees’ remuneration in WC Specialist roles to 102%.

As of 2021, our Human Resources Policy is based on “Compliance with applicable national legal regulations, standards published by the International Labor Organization (ILO), the Universal Declaration of Human Rights, and United Nations conventions.

In order to create social awareness and to concretize the value it shows to its employees, our corporation provides social aids such as fuel, child, education, marriage, birth and death aid. In addition to social benefits, we also provide WC employees with rights such as “Private Health” and “Private Pension Contribution”. In 2020, 336 WC employees at Karsan benefited from these benefits, while 407 employees benefited in 2021. In 2021, 103 female and 304 male employees benefited from the rights we provided to our employees.

BY Beneficiaries of Employee Benefits	Male			Female			TOTAL		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Private Health Insurance	207	173	168	71	54	53	278	227	221
Private Life Insurance	0	0	0	0	0	0	0	0	0
Personal Accident Insurance	0	0	0	0	0	0	0	0	0
Private Pension Contribution	97	107	100	32	32	26	129	139	126
Total	304	280	268	103	86	79	407	366	347

Table 19: Beneficiaries of the Rights Provided to Full-Time Employees

With the Karsan Positive Career process, we have a fair organizational structure in which all our factory employees can transparently observe the rotation and promotion processes within the company and independent managers are involved in the selection process. Impact assessments within the organization consist of a process that includes goal setting, interim evaluation and year-end evaluation stages, and through these impact assessments, we evaluate the impact of behavioral competencies on performance.

Within the scope of the “Training and Development Plans” we have developed for our employees on an individual scale, the mentoring requests and needs of our employees are matched by Human Resources with the mentors and mentees in our management team. In addition, we use the “Requests and Wishes” area on the Karsan Positive Portal, a confidential reporting system where our employees can provide feedback on their working conditions.

Finally, we conduct an employee satisfaction and loyalty survey every 3 years in our organization with the intention of providing our employees with an environment where they can develop themselves and determine their career goals in line with the needs of the company. Since the survey, which was last conducted in 2018, could not be conducted in 2021 due to the pandemic, we aim to repeat it in 2022. As a result of our experience that our employees can also work from home / remotely during the pandemic process, we have prepared a procedure for flexible working / remote working in our human resources practices, taking into account the work-private life balance of our employees.

We have taken the training and development process of our employees under the commitment of the Human Resources policy of the senior management.

Human Rights and Gender Equality

As we point out in our Karsan Zero Tolerance to Violence Policy and Human Resources Policy, Karsan recognizes all the rights set out in the UN Universal Declaration of Human Rights and ILO Conventions, and we support the exercise of these rights by all our constituents, especially our employees.

Human Rights

We have prepared the Karsan Code of Business Ethics and Practices Procedure with reference to the International Labour Organization (ILO) Convention No. 190. As we point out in our Karsan Zero Tolerance to Violence Policy and Human Resources Policy, Karsan recognizes all the rights set out in the UN Universal Declaration of Human Rights and ILO Conventions, and we support the exercise of these rights by all our constituents, especially our employees. We act in line with the principle of "People-Oriented Approach" that we adopt at every stage of our production and management processes.

In line with current and future human resources planning, we apply techniques such as competency-based interviews, technical interviews, foreign language exams, personality inventories, and reference checks to help select the most accurate and most suitable candidate for the job. Thus, in the recruitment process, we carry out a process based on merit and observing human and employee rights. In all our processes such as employment and promotion, we ensure gender equality and equal opportunity and prevent discrimination based on religion, language, race, sexual orientation, ethnic origin or the inherent qualifications of the individual and provide merit-based employment. In this context, we do not allow preferential treatment in situations that contradict our policies; we do not excuse pressure, harassment, intimidation and similar behaviors to our employees under any circumstances. In our organization, where we support teamwork, ensure participation and corporate awareness, and create a transparent and reliable communication environment, we strive to provide a safe environment where our employees can easily provide feedback on rights violations. In accordance with the principles set out in the Human Resources Policy, Code of Business Ethics and Code of Practice, when a case occurs, our employees submit their complaints by following certain procedures. As KARSAN, we examine all reported cases in compliance with the principle of confidentiality and take the necessary actions immediately.

In addition to gender equality and discrimination, we also take into account basic human rights issues such as the prevention of forced or compulsory labor and child labor while carrying out our activities in accordance with our company policy. As KARSAN, we expect our suppliers to show the sensitivity we show on these issues and to exhibit similar behaviors.

We support our employees to increase their awareness of human rights. In line with the strategies we have developed as a company and the targets we have set, we invest in human resources through practices based on continuous development and provide our employees with a working environment where they can develop themselves. In this context, in 2021, Karsan provided a total of 1,360 hours of Human Rights Training under the titles of "I Support Equality", "Zero Tolerance to Violence" and "Gender Equality Trainer Training" at our Bursa, Kocaeli, Mersin and Istanbul facilities. As of the end of December 2021, 63% of our employees completed the "Zero Tolerance to Violence" trainings we provided, and we continue our training processes.

As KARSAN, we examine all reported cases in compliance with the principle of confidentiality and take the necessary actions immediately.

Human Rights Training	2021			2020			2019		
	Bursa	İstanbul, Kocaeli, Mersin	TOTAL	Bursa	İstanbul, Kocaeli, Mersin	TOTAL	Bursa	İstanbul, Kocaeli, Mersin	TOTAL
Number of Employees Attending Human Rights Trainings 1- Zero Tolerance for Violence 2- I Support Equality 3- Gender Equality - Trainer Training	654	19	673	16	1	17	814	100	914
Total Human Rights Training Hours	1.322	38	1.360	50	3	53	1.724	162	1.886

Table 20: Human Rights Training

In addition to the decent working conditions we provide in HR processes, we respect the rights and freedoms of our employees, their right to union membership and collective bargaining rights; we create the necessary conditions for them to exercise their rights and to establish effective communication with the unions organized in our workplaces.

In addition to the decent working conditions we provide in HR processes, we respect the rights and freedoms of our employees, their right to union membership and collective bargaining rights; we create the necessary conditions for them to exercise their rights and to establish effective communication with the unions organized in our workplaces. We guarantee our employees' rights to organize and collectively bargain through our company policies as well as the relevant legal regulations. According to 2021 data, we employed 97.1% of our hourly paid employees and 71.90% of our total workforce through collective bargaining.

In addition to these, we also consider the future of our employees and provide them with the WC Group Contributory Private Pension System, which they can benefit from if they wish. In addition to the premium paid by our employees who are included in this plan, our company also makes a fixed payment and we continue to support the retirement savings of our employees. In this context, 129 employees benefited from the pension system we developed as of the end of December 2021. We care that all our employees feel happy and secure during and after their employment with us and we believe that this is the key to our success.

Gender Equality

At Karsan, we are aware that gender equality gives us the opportunity to recruit from a wider talent pool, learn more about our customers' needs and improve supply security & quality. We know that sustainable development and social welfare can only be achieved by empowering women. Recognizing this, we support the empowerment of women in working life and shape our policies accordingly.

We formulate our policies defining our commitments on diversity and equal opportunities by taking into consideration the Gender Equality Policy, Zero Tolerance to Violence Policy and UN Women's Empowerment Principles (WEPs). In 2019, we continue to implement the "ILO's Model for Promoting Gender Equality in Companies", which we committed to with the protocol we signed with the International Labour Organization (ILO) and Kıraça Holding. In this context, we became a signatory of the United Nations (UN) Global Compact Platform United Nations (UN) Global Compact in November 2021.

In 2021, the "Karsan Positive Equality Committee", which was formed by employees from different departments and positions under the leadership of HR in 2019, continued to carry out Gender Equality activities across the company and to take the necessary measures to increase women's employment by carrying out 56 activities under 5 sub-work areas. In 2021, the Positive Equality Committee also implemented our "Development Plan", which aims to increase the number of female employees by an average of 2% per year until 2026. We have realized our 2% annual average target in female employment, which we highlighted in our Development Plan, with our female employment rate reaching 6.5% in 2021.

We formulate our policies defining our commitments on diversity and equal opportunities by taking into consideration the Gender Equality Policy, Zero Tolerance to Violence Policy and UN Women's Empowerment Principles (WEPs).

Number of Employees by Year	MALE			FEMALE			TOTAL		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Domestic	992	1,001	1,014	70	58	57	1,062	1,059	1,071
Total	992	1,001	1,014	70	58	57	1,062	1,059	1,071

Table 21: Number of Employees by Year

We have delivered the "I support Equality", "Zero Tolerance to Violence", "Gender Equality Trainer Training" seminars we targeted in 2020, to 673 of our employees in 2021.

In addition, within the framework of our Development Plan, we have made changes such as changing the recruitment interview questions, creating a flexible working system focusing on remote working hours and special case leave, gender-based reporting in the suggestion system, changing the name of the changing rooms to dressing rooms and renovating the breastfeeding room.

Number of Middle Level Managers	2021	2020	2019
Female	14	13	13
Male	70	64	66

Table 22: Number of Middle Level Managers

In this process, while the rate of female managers increased from 11% to 14.2% at the senior management level, we calculated the rate of female employment in mid-level management as 16.6%. 29% of our recruitments in 2021 will be made up of female employees.

Newly Recruited Employees by Gender and	2021		2020		2019	
	Female	Male	Female	Male	Female	Male
Over 50 Years	0	3	0	0	0	2
Between 30-50 Years	13	25	2	12	5	15
Under 30 Years	17	45	2	9	2	9
Total (Gender Based)	30	73	4	21	7	26
Total	103		25		33	

Table 23: Newly Recruited Employees by Gender and Age

New Recruitments		2021 New Recruits	Male						Female					
			Under 30 Years		Between 30-50 Years		Over 50 Years		Under 30 Years		Between 30-50 Years		Over 50 Years	
			Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
2021	Domestic	103	45	44%	25	24%	3	3%	17	17%	13	13%	0	0%
	Total	103	45	44%	25	24%	3	3%	17	17%	13	13%	0	0%

Table 24: New Recruitments

In 2021, we delivered the “I Support Equality”, “Zero Tolerance to Violence” and “Gender Equality Trainer Training” seminars, which we targeted in 2020, to 673 employees in order to adapt gender equality and equal opportunities to our corporate culture and raise awareness. We are aware that gender inequality manifests itself in different dimensions such as promotion and dismissal, and one of these areas is remuneration and salary policies. Accordingly, in our employment practices, we implement the Positive Career process through the Karsan Gender Equality and Human Resources Policies and the Positive Career Procedure we have established to ensure equitable criteria in the promotion process in our company, and we adopt the policy of equal pay for equal work in remuneration and salary policies. While the determining factor in our company’s salary and remuneration policies is the work performed, we do not consider gender as a factor in these policies.

We also signed a cooperation protocol with Mor Salkım (Purple Bunch) Women’s Solidarity Association and Solidarity Center on combating domestic violence against women, within the scope of our Gender Equality and Zero Tolerance to Violence Policy, in line with our main goal of gender equality, increasing women’s employment in our company and contributing to the fight against domestic violence. Within the scope of the protocol, which has a validity period of five years, we aim to provide support to our employees and their relatives by the association, to direct the women who receive service from the association and request a job to the Human Resources department of Karsan, and to use the violence hotline of the association free of charge for those who are exposed to or witness domestic violence. With the protocol, we also aim to provide voluntary cooperation in awareness activities that can be carried out on combating violence, if requested from us. In our Positive Equality journey, we joined forces against gender inequality and contributed to the empowerment of women by purchasing Purple Roof Women’s Shelter Foundation products. Finally, the painting competition themed “Labor Has No Gender” organized by Bursa Organized Industrial Zone Industrialists and Businessmen Association (BOSİAD), one of the important associations of the city where our production facilities are located, and Bursa Organized Industrial Zone (BOSB), was presented to the participants with the imagination of our employees’ children. We joined with pictures. The work we have carried out on the way we have started with the slogan of Positive Equality since 2019 was awarded in 2021 by The Stevie Awards, Silver Stevie Winner - Success in Leadership Development for Women category and Business Portfolio KOÇ-KAM Women-Friendly Companies Index.

While the determining factor in our company’s salary and remuneration policies is the work performed, we do not consider gender as a factor in these policies.

30 female employees were recruited in 2021.

Corporate Social Responsibility

In addition to the employment opportunities and economic value we create in our production processes, Karsan supports social development and progress through corporate responsibility projects and donation activities in the regions where we operate.

In addition to the employment opportunities and economic value we create in our production processes, Karsan supports social development and progress through corporate responsibility projects and donation activities in the regions where we operate. In this context, in 2021, we realized four different donation-oriented corporate responsibility projects that aim to add value to society, raise awareness among our stakeholders, and strive for a better world.

With the donation we made to the Mor Çatı (Purple Roof) Women's Shelter Foundation on Women's Day, we aimed to support women who are subjected to violence and in need of support within the scope of our Gender Equality and Zero Tolerance to Violence projects with the products we purchased and to ensure that our female employees are involved in corporate social responsibility projects. As part of our project, we donated to the Purple Roof Women's Shelter Foundation on behalf of 86 female employees.

In 2021, as part of the Father's Day event, we organized an award-winning drawing contest with the theme "My Father is a Hero" for the children of our esteemed colleagues and celebrated the day of our employees who are fathers with a drawing contest in which their children expressed their love with great effort and imagination. As Karsan, we covered the education and book expenses of children in need by donating to the Mother Child Education Foundation (AÇEV) "A Reading Future" campaign for each of our little contestants who added value to the contest with their labor and imagination.

As Karsan, we took our steps in the 8th Bursa Eker I Run organized in 2021 in order to provide access to quality education for children at TEGV Bursa Learning Unit. With the awareness that today's children are tomorrow's future, our Running Team set out to ensure that primary school children have a happy childhood and are well-equipped for the future, with the aim of bringing children into society and supporting their education. With the donations collected within the scope of the project, we covered the 1-year education expenses of 32 children.

On the occasion of World Environment Day on June 5th, we as Karsan Otomotiv A.Ş. aimed to combat climate change and environmental pollution and to crown our struggle with increasing access to quality education. In line with our goal, we collaborated with TEGV to recycle electronic waste and prevent environmental damage. As part of the TEGV-Karsan cooperation, we collected 100.4 kg of electronic waste brought by our employees from their homes at Karsan Electronic Waste collection sites. We recycled this waste at the licensed electronic waste disposal facility in cooperation with TEGV, and in return, we met the educational needs of children in need. In this way, we contributed to education by preventing the improper disposal of these wastes, which are considered hazardous waste.

On the occasion of World Environment Day on June 5th, we as Karsan Otomotiv A.Ş. aimed to combat climate change and environmental pollution and to crown our struggle with increasing access to quality education.

ANNEXES

KARSAN

ELECTRIC EVOLUTION

Social Performance

Number of Employees by Working Hours	2021		2020		2019	
	Female	Male	Female	Male	Female	Male
Between 0-5 Years	44	237	27	253	32	291
Between 5-10 Years	15	323	23	326	19	334
Over 10 Years	11	432	8	422	6	389
Total (Gender Based)	**70**	**992**	**58**	**1001**	**57**	**1014**
Total	**1062**		**1059**		**1071**	

Employees by Gender and Age	2021		2020		2019	
	Female	Male	Female	Male	Female	Male
Over 50 Years	3	78	0	0	0	0
Between 30-50 Years	46	811	0	0	0	0
Under 30 Years	21	103	0	0	0	0
Total (Gender Based)	**70**	**992**	**0**	**0**	**0**	**0**
Total	**1062**		**0**		**0**	

Managers	2021		2020		2019	
	Female	Male	Female	Male	Female	Male
Over 50 Years	2	17	0	0	0	0
Between 30-50 Years	12	53	0	0	0	0
Under 30 Years	0	0	0	0	0	0
Total (Gender Based)	**14**	**70**	**0**	**0**	**0**	**0**
Total	**84**		**0**		**0**	

Newly Recruited Employees by Gender and Age	2021		2020		2019	
	Female	Male	Female	Male	Female	Male
Over 50 Years	0	3	0	0	0	2
Between 30-50 Years	13	25	2	12	5	15
Under 30 Years	17	45	2	9	2	9
Total (Gender Based)	**30**	**73**	**4**	**21**	**7**	**26**
Total	**103**		**25**		**33**	

Employees who Quit by Gender and Age	2021		2020		2019	
	Female	Male	Female	Male	Female	Male
Over 50 Years	0	5	1	5	1	2
Between 30-50 Years	0	5	3	14	3	9
Under 30 Years	0	0	1	1	1	0
Total (Gender Based)	**0**	**10**	**5**	**20**	**5**	**11**
Total	**10**		**25**		**16**	

Number of Disabled Employees by Gender	2021	2020	2019
Female	1	1	1
Male	29	29	29
Total	**30**	**30**	**30**

Average Seniority Years	Female	Male
	70	992
	4,25	10,26

Performance Indicators

FINANCIAL AND OPERATIONAL PERFORMANCE	2019	2020	2021
Production Capacity (units)	18,200	19,870	19,930
The capacity utilization rate (%)	27.54	15.63	17.2
Produced Vehicle (piece)	5,013	3,106	3,437
Net Sales Revenue (million TL)	1,731.87	1,615.95	2,100.24
Operating Profit (million TL)	257.98	525.08	780.499
Gross Profit (million TL)	315.22	474.04	574.135
Net Profit for the Period (million) TL)	20.31	20.72	98.89
Net Debt (million TL)	1,405.65	1,407.75	1,872.82
Total Equity (million TL)	620.74	728.17	993.89
Return on Equity (ROE) (%)	0.03	0.03	
Total Assets (million TL)	2,493.15	2,716.95	3,737.26
Total Investment (million TL)	46.22	112.45	96.73
Incentives from Government and Other Institutions	29.38	145.21	-
Ratio of Lowest Employee Wage to Minimum Wage by Gender %			
Female Employees	160.22	180.91	170.73
Male Employees	130.18	150.28	133.33
Male-Female Employee Median Salary Difference (%)			
Hourly Wage Employees	-8.15	8.16	-9.13
Monthly Paid Employees	14.79	9.61	8.51
Number of Active Suppliers	850	782	1,654
Local Procurement Rate by Number of Suppliers	75.53	75.58	82

ENVIRONMENTAL PERFORMANCE	2019	2020	2021
Direct Energy Consumption (GJ)-Natural Gas	35,364	28,854	25,845
Indirect Energy Consumption (GJ)-Electricity	39,298	31,766	32,050
Energy Consumption per Production (GJ/unit)	15	20	17.4
Energy Efficiency Savings (GJ)	2,427	3,584	4,187
Total Water Consumption-Water Well (cubic meter)	63,399	36,913	45,596
Water Consumption per Production (cubic meters/piece)	11.1	12.7	12.55
Total Waste Water Discharge-Waste Water Channel (cubic meters)	28,030	15,750	16,995
Waste Water Sludge (kg/cubic meter waste water)	0.9	0.77	0.46
Total Solid Waste Amount (tons)	2,090,591	1,209,924	1,319.59
Hazardous Wastes	253,000	161,874	126.27
Non-Hazardous Wastes	1,837,591	1,048,050	408.95
Waste Disposal	14	5	220.45
Recycled Waste	1,845,997	1,209,919	1,087.99
Energy Recovery	244,580	0	140.7
Amount of Waste per Production (kg/piece)	420.6	354.1	381.3
Solid Waste Recovery Rate %	99.99	99.99	82%
Direct (Scope1) Greenhouse Gas Emissions (tonnes CO_2e)	2,521	1,815	1,454
Indirect (Scope2) Greenhouse Gas Emissions (tonCO_2e)	4,665	3,772	4,015
GHG Emissions Per Production (scope3) (tonCO_2e)	890	880	25.13
Greenhouse Gas Emissions Per Production (ton/CO_2e/unit)	1.44	1.84	1.58
Average Vehicle Emission Level by Segment Sales Figures (grCO_2/kWh)	640.66	597.73	296

ENVIRONMENTAL PERFORMANCE	2019	2020	2021
Air Emissions			
SOx (kg/s)	72.2	42.27	54.72
NOx (kg/s)	5,346	4,873	4,628.64
Particulate Matter (kg/s)	2,794	2,547	3,297
UOB (gr/square meter vehicle)			
Bus	**196**	**194.6**	-
Light Commercial	**46.7**	**36.4**	-
Environmental Investment and Management Expenditures	**902,333**	**802,287**	**627,333**

SOCIAL PERFORMANCE	2019	2020	2021
Number of Employee Training Participants (person)	**1,001**	**933**	**953**
Monthly wage female	56	54	73
Monthly wage male	166	186	224
Hourly female	2	3	3
Hourly male	**777**	**690**	635
Employee Training Hour (person x hour)	**29,037**	**1,2274.09**	16.593
Monthly wage female	**3,699.5**	**1,533.81**	2,113
Monthly wage male	**8,544.5**	**5,771.83**	6,753
Mourly female	**34**	**34,43**	30
Hourly male	**9,040**	**4,934.02**	7,697
Total OHS Training Hours (person x hour)	**9,156**	**4,784**	2853.5
Total OHS Training Participation (number of people)	**833**	**914**	336
Accident Frequency Rate	**9.6**	**3.4**	10.7

SOCIAL PERFORMANCE	2019	2020	2021
Female Employees	**0**	**0**	**0**
Male Employees	9.6	3.4	10.7
Lost Day Rate	0.05	0.01	0.07
Female Employees	0	0	0
Male Employees	**0.05**	**0.01**	0.07
Occupational Disease Rate	**0**	**0**	0
Female Employees	**0**	**0**	0
Male Employees	**0**	**0**	0
Number of Work-Related Deaths	**0**	**0**	0
Female Employees	**0**	**0**	0
Male Employees	**0**	**0**	0
Disaster and Emergency Education	**155**	**21**	123
Number of Participants (number of people)	**556**	**160**	950
Disaster and Emergency Training Hours	**81**	**43**	33
(person x hour)	**21**	**8**	7
Employees Participating in the Leadership Program	**60**	**35**	26

EMPLOYEE DEMOGRAPHICS	2019	2020	2021
Total Number of Employees			
Direct Employment	1,079	1,059	1,062
Female	57	58	70
Male	1,014	1,001	992
Contractor Company Employee	91	**95**	**175**
Female	**20**	**22**	**29**
Male	**71**	**73**	**146**
Total Number of Employees by Category			
Monthly Paid Employees	**224**	**230**	**273**
Female	**54**	**55**	**67**
Male	**170**	**175**	**206**
Hourly Wage Employees	**847**	**829**	**789**
Female	**3**	**3**	**3**
Male	**844**	**826**	**786**
Total Number of Employees by Contract Type			
Indefinite Term Employment Contract	**1,060**	**1,055**	**985**
Female	**55**	**56**	**0**
Male	**1,005**	**999**	**985**
Temporary Employment Contract	**11**	**4**	**0**
Female	**2**	**2**	**0**
Male	**9**	**2**	**0**

EMPLOYEE DEMOGRAPHICS	2019	2020	2021
Number of Employees by Education Level			
Uneducated	0	0	0
Primary education	191	186	168
High school	530	513	492
University and Above	**350**	**360**	402
Number of Employees by Age			
Female			
18-30	**14**	**11**	21
30-45	**38**	**43**	46
45+	**5**	**4**	3
Male			
18-30	**144**	**102**	103
30-45	**664**	**670**	811
45+	**206**	**229**	78
Senior Management Structure (person)			
Female			
18-30	**0**	**0**	0
30-45	**0**	**1**	12
45+	**0**	**0**	2
Male			
18-30	0	**0**	0
30-45	1	**3**	53
45+	5	**5**	17

EMPLOYEE DEMOGRAPHICS	2019	2020	2021
Senior Management Structure (person)			
Female			
18-30	0	0	0
30-45	10	9	12
45+	3	**3**	**2**
Male			
18-30	1	**0**	**0**
30-45	38	**33**	**42**
45+	**21**	**23**	**23**
Newly Hired Employees (person)			
Monthly wage female	7	**4**	**30**
Monthly wage male	26	**21**	**73**
Hourly female	**0**	**0**	**0**
Hourly male	**2**	**0**	**8**
Employees Leaving (person)			
Monthly wage female	9		**18**
Monthly wage male	11	**5**	**42**
Hourly female	**0**	**18**	**0**
Hourly male	**24**	**0**	**48**
Employee Circulation	**2.00%**	**18**	**5,4%**
Female	**12.28%**	**1.60%**	**25%**
Male	**1.48%**	**3.45%**	**0.09%**

EMPLOYEE DEMOGRAPHICS	2019	2020	2021
Number of Female Employees Taking Maternity Leave	**4**	**4**	**2**
Number of Female Employees Returning from Maternity Leave	4	4	2
Number of Employees Who Didn‘t Leave Work for the Last 12 Months After Returning from Maternity Leave	4	4	2
Number of Disabled Employees			
Female	**1**	**1**	1
Male	**29**	**29**	29
Number of Employees Under Collective Agreement	**823**	**805**	789

GRI Index

MATERIALITY DISCLOSURES SERVICE 2022

We have developed the content of the report in accordance with the requirements of the GRI Standards Basic option. We have received confirmation that the general notifications between GRI Standards 102-40 and 102-49 under the "Materiality Disclosures Service " offered by GRI are correctly included in the report. The service was provided through the Turkish version of the report.

STANDARDS	NOTIFICATIONS	HEADINGS OR ANSWERS	PAGE / URL
GRI 101: Basic Principles 2016			
General Disclosures			
GRI 102: General Disclosures 2016	**Organizational Profile**		
	102-1	About the Report	8
	102-2	About Karsan	12
	102-3	Contact	134
	102-4	About the Report, About Karsan, Contact	8 12 134
	102-5	About Karsan	12
	102-6	Electric Vehicles	73-75
	102-7	About Karsan, Demography of Employees	13 120-123
	102-8	Performance Data; Karsan's activities do not include seasonal business lines in terms of employment. Employee demographic data is calculated based on the number of employees operating in the company on the last day of the relevant year.	116-119
	102-9	Responsible Procurement	36
	102-10	In the reporting period, although changes were made in the organizational structure of the company to increase the management efficiency, there was no change that would create a large-scale difference that would affect the operating structure of the company.	96
	102-11	Risk Management and Internal Audit, Quality Management	44-45
	102-12	Inclusive Workplace	96
	102-13	Karsan is a signatory of the Turkish Metal Industrialists' Union (MESS) and the Automotive Industry Association (OSD) and a signatory to the UN Women's Empowerment Principles (WEPs).	124

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	Strategy		
	102-14	Message From the Chairman of the Board of Directors	10,11
	102-15	Stakeholder Communication and Sustainability Priorities	38,39
	Ethics and integrity		
	102-16	Values, Policies, Ethical Principles	www.karsan.com/tr/ kurumsal/karsan-hakkinda /degerlerimiz www.karsan.com/tr/ kurumsal/karsan-hakkinda / politikalarimiz www.karsan.com/download/files/karsan-etik-kurallari_5254763424.pdf
	102-17	Risk Management and Internal Audit	44,45
	Governance		
	102-18	Our Governance Fundamentals Sustainability Management Structure	41-42 29
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	102-20	Our Governance Fundamentals Sustainability Management Structure	41-42 28-29
	102-21	Our Priority Issues and Sustainable Development Goals Stakeholder Communication and Sustainability Priorities	34-37 30-33
	102-22	Corporate Governance Board of Directors and Senior Management Structure	43 43
	102-23	Board of Directors and Senior Management Structure	43
	102-26	Our Sustainability Approach Sustainability Management Structure	26-27 14-15
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	102-31	Risk Management and Internal Audit	44-45
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	Stakeholder Engagement		
	102-40	Stakeholder Communication and Sustainability Priorities	30-33
	102-41	There are no employees under the collective bargaining agreement.	126
	102-42	Our Sustainability Approach Stakeholder Communication and Sustainability Priorities Our Priority Issues and Sustainable Development Goals	26,27 30-33 34-37
	102-43	Our Sustainability Approach Stakeholder Communication and Sustainability Priorities Our Priority Issues and Sustainable Development Goals	26-27 30-33 34-37
	102-44	Our Sustainability Approach Stakeholder Communication and Sustainability Priorities Our Priority Issues and Sustainable Development Goals	26-27 30-33 34-37
	Reporting Practice		
	102-45	About the Report, About Karsan	8 13
	102-46	Our Sustainability Approach Our Priority Issues and Sustainable Development Goals	26-27 34-37
	102-47	Our Sustainability Approach Our Priority Issues and Sustainable Development Goals	26-27 34-37
	102-48	Karsan Sustainability Report 2021	8
	102-49	Our Priority Issues and Sustainable Development Goals	34-37
	102-50	About the Report	8
	102-51	Our first report was published in 2021.	8
	102-52	About the Report	8
	102-53	Contact	134
	102-54	About the Report	8
	102-55	GRI Index	124-133
	102-56	The data shared in the report has not been independently verified for the purposes of this report.	127

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GRI 200: SERIES of ECONOMIC PERFORMANCE			
	Economic Performance		
GRI 103: Management Approach 2016	103-1	Our Priority Issues and Sustainable Development Goals The Economic Value We Create Automotive Sector in figures and Karsan	34-37 14-15 15
	103-2	The Economic Value We Create Automotive Sector in figures and Karsan	14-15 15
	103-3	About Karsan The Economic Value We Create Karsan Subsidiaries	11-12 14-15 17
GRI 201: Economic Performance 2016	201-1	The Economic Value We Create	14-15
	201-4	Performance Datas	116
	Market Presence		
GRI 103: Management Approach 2016	103-1	Karsan Shareholding Structure Redefining Mobility	16 22-25
	103-2	Redefining Mobility	22-25
	103-3	Karsan Subsidiaries Redefining Mobility	17 22-25
GRI 202: Market Presence 2016	202-1	Performance Datas	116
	Indirect Economic Impacts		
GRI 103: Management Approach 2016	103-1	Our Priority Issues and Sustainable Development Goals Sustainability Management Structure Smart Mobility	34-37 28-29 18
	103-2	The Economic Value We Create Our Priority Issues and Sustainable Development Goals Sustainability Management Structure Smart Mobility	14 34-37 28-29 35
	103-3	The Economic Value We Create Our Priority Issues and Sustainable Development Goals Sustainability Management Structure, Smart Mobility	14-15 34-37 28-29 35
GRI 203: Indirect Economic Impacts 2016	203-1	Karsan Subsidiaries Redefining Mobility	17 22-25
	203-2	R&D and Innovation	71-72

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	103-2	Sustainability Management Structure Responsible Procurement	28-29 26
GRI 204: Procurement Practices 2016	103-3	Sustainability Management Structure Responsible Procurement	28-29 26
	204-1	Responsible Procurement Sustainability Steps and Targets for the Reporting Period	26 19
	Anti-Corruption		
GRI 103: Management Approach 2016	103-1	Stakeholder Communication and Sustainability Priorities Business Ethics	20-22 46
	103-2	Business Ethics	46
	103-3	Business Ethics	46
GRI 205: Anti-corruption 2016	205-1	Ethic	46
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GRI 103: Management Approach 2016	103-1	Risk Management and Internal Audit	44-45
	103-2	Risk Management and Internal Audit	44-45
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GRI 103: Management Approach 2016	103-1	Stakeholder Communication and Sustainability Priorities Climate Change and Environmental Management	20-22 82-85
	103-2	Climate Change and Environmental Management Energy Management	82-85 86-87
GRI 302: Energy 2016	103-3	Stakeholder Communication and Sustainability Priorities Climate Change and Environmental Management Energy Management	20-22 82-85 86-87
	302-1	Energy Management	86-87
	302-2	Environmental Performance	117-118
	302-3	Environmental Performance	117-118
	302-4	Electric Vehicles Energy Management	68-69 86-87
	302-5	Waste Management	90-91
	Water and Effluents		
GRI 103: Management Approach 2016	103-1	Our Priority Issues and Sustainable Development Goals Water Management	34-37 94-95
	103-2	Our Priority Issues and Sustainable Development Goals Water Management	34-37 94-95
	103-3	Our Priority Issues and Sustainable Development Goals Water Management	34-37 94-95
GRI 303: Water and Effluents 2018	303-1	Water Management	94-95
	303-2	Water Management	94-95
	303-3	Water Management Environmental Performance	94-95 117-118
	303-4	Water Management Environmental Performance	94-95 117-118
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	103-2	Stakeholder Communication and Sustainability Priorities Biological Diversity	20-22 89
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GRI 304: Biodiversity 2016	304-1	Biological Diversity	89
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GRI 103: Management Approach 2016	103-1	Climate Change and Environmental Management Emissions	82-85 88
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GRI 305: Emissions 2016	305-1	Emissions	88
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GRI 307: Environmental Compliance 2016	307-1	Climate Change and Environmental Management	35
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GRI 403: Occupational Health and Safety2018	403-1	Occupational Health and Safety WCM Management Structure	62-66 57
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GRI 414: Supplier Social Assessment 2016	414-1	Responsible Procurement	36

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