



**NORTHERN  
MARMARA  
MOTORWAY**

# ***SUSTAINABILITY REPORT***

# **2022**





“  
THE  
NORTHERN  
MARMARA  
MOTORWAY:  
ROAD THAT  
CONNECTS  
TURKEY TO  
THE FUTURE  
”



**415**  
km

A motorway ecosystem with 415 km in continents of Asia and Europe



**3,589**  
equipment

Extensive operation managed by Smart Transportation System (STS) equipment



**10**  
MSC's

Construction of special service centers (MSC) focusing on providing comfortable and peaceful service to passengers



**689**  
**employees**

As of 2022 year-end, NMM employed 689 people



**26%**

Percentage of women employees as of 2022 year-end



**1,900**  
**hours of training**

NMM provided 1,900 hours of training to its employees in 2022.



“  
NMM AIMS FOR A  
TRANSPARENT AND  
RESPECTFUL DIALOGUE  
WITH ITS STAKEHOLDERS  
BASED ON ETHICAL  
PRINCIPLES AND SHARES  
THE RESULTS OF ITS  
PERFORMANCE FOR THE  
REPORTING PERIOD IN THIS  
REPORT.”



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## ABOUT THE REPORT



### NMM AIMS TO SHARE ITS ESG (ENVIRONMENTAL, SOCIAL, GOVERNANCE) PERFORMANCE ON AN ANNUAL BASIS.



This report presenting the environmental, social and governance performance of The Northern Marmara Motorway (NMM) Management for the period of 1 January 2022-31 December 2022 is the Company's first sustainability report. NMM aims to share its ESG (environmental, social, governance) performance on an annual basis.

The report includes the operations of AVRUPA OTOYOLU YATIRIM VE İŞLETME A. Ş. and NMM ANADOLU OTOYOLU İŞLETME A.Ş., within the structure of NMM, conducted in Turkey.

2022 Sustainability Report includes the management mechanisms of governance and internalization of sustainability within the Company, in addition to the opinions of NMM Management. It is recommended that this report, which is the main source of information regarding the Company's ESG performance, to be reviewed in conjunction with the policies and other information disclosed to public at NMM's web site.

NMM aims for a transparent and respectful dialogue with its stakeholders based on ethical principles. The Company believes that this report will have a contribution to stakeholder dialogue and information process and shares its results of performance for the reporting period reviewing its corporate strategy, goals and other long-term production power with a multi-perspective approach.



Dialogue established with stakeholders, material issues and value created are reviewed in detail at this report. The report was constructed around the material issues which are considered as the most significant matters by the Company and stakeholders. In addition to topics which present environmental, social and governance performance, the report also includes human resources and OHS performance data.

Indicators and disclosures in 2022 Sustainability Report are presented within the framework of reporting of GRI Standards.



Please scan the code for detailed information on NMM.

<https://www.kuzeymarmaraotoyolu.com/en>



NMM 2022 SUSTAINABILITY REPORT was issued on 29 October 2023.



# COMPANY PROFILE

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## MESSAGE FROM THE CEO

“  
**COMPLETING ITS FIFTH  
 YEAR OF OPERATIONS, THE  
 NORTHERN MARMARA  
 MOTORWAY IS ONE OF  
 THE BEST PROJECTS  
 WHICH REFLECT THE  
 TRANSFORMATION OF  
 TRANSPORTATION IN OUR  
 COUNTRY IN TERMS OF  
 MOTORWAYS.**”

Dear Stakeholders,

We are excited and pleased to present the first sustainability report of the Northern Marmara Motorway for your review. What mainly strengthens our happiness is issuing and sharing this report on the 100<sup>th</sup> birthday of our Republic.

As we step into a new century, getting strength from a well-established hundred-year old experience, our country and economy continues to take determinant steps which will grow, develop and carry Turkey into the future.

We believe that Turkish Republic that we gained as a result of the incomparable War of Independence lead by Gazi Mustafa Kemal Atatürk and his comrades had become an example and inspiration for many nations of the world and it will continue to offer a homeland, food and pleasant living conditions to future generations.

### As we leave our 5<sup>th</sup> year behind

Our country is also taking significant steps in transportation area and entering into the second century with a comprehensive progress.

With an area of approximately 800 thousand km<sup>2</sup> and a population of more than 85 million, Turkey is a market with a strong growth potential. A relatively young demographic structure in comparison with developed countries, ground and underground natural resources and its position in industrialization are significant topics which points out our country's potential. To transform this potential to an increasing performance, global competitive and efficient



production, security of energy supply and, as a complement of this cycle, the presence of a transportation network managed by modern technology are significant elements.

Recently, Turkey has realized significant progress in land, air, water and railway transportation and strengthened its connections with the integrated world.

As we left our 5<sup>th</sup> year of operations, The Northern Marmara Motorway Management is one of the best projects which reflect and crown the transformation in the area of transportation in terms of highways. I made this observation not only with a sentimental approach, being a part of the team as a professional executive, but with the existence of information we have and share based on technical, scientific and comparable indicators and systems.



## MESSAGE FROM THE CEO



AS WE PROVIDE ACCELERATION TO COMMERCIAL LIFE WITH OUR CONTRIBUTION TO ECONOMY AND UNINTERRUPTED TRANSPORTATION, WE ALSO TOUCH EVERY ASPECT OF HUMAN LIFE; WE BRING TOGETHER FAMILIES AND LOVED ONES THROUGH FAST, SAFE AND COMFORTABLE MOBILITY.



The Northern Marmara Motorway is an exemplary transportation project that connects numerous disciplines at the same corridor, such as smart transportation systems, high level engineering, advanced technology and qualified enterprise management operations. With this project, Istanbul, Kocaeli and Sakarya provinces, which host Turkey’s most advanced industrial infrastructure, were connected to each other and a critical mission was accomplished in terms of macroeconomics.

Our motorway network of 415 kilometers connects continents of Asia and Europe and is a significant socio-economic transportation corridor.

### Seven advantages

We review the value created by The Northern Marmara Motorway with respect to Turkish economy, social life and environment under seven advantages: **High standards, continuity, safety, comfort, time savings, oil savings and easy traffic flow.**

As we provide acceleration to commercial life with our contribution to economy and uninterrupted transportation, we also touch every aspect of human life; we bring together families and loved ones through fast, safe and comfortable mobility.

We need to include our direct and indirect contributions to environment within our achievements. The main one of these is the reduction in oil consumption. In addition to economic impact mentioned above, another output of this reduction should be noted as less

use of fossil fuel which is considered as one of the main triggers of climate crisis and resulting contribution to the reduction of greenhouse gas emission.

Uninterrupted traffic not only provides time savings which is an important economic return, but also reduces exhaust gas released to nature.

The importance we gave to biodiversity is reflected in comprehensive landscaping activities across our route, the ecological bridge for wildlife, bird observatory activities and providing vital support for stray animals on our transportation corridor.

We can summarize our accomplishments and contributions in social respect as our interaction with surrounding villages and communities, modern working conditions for our employees focusing on diversity and top level OHS criteria. Within the same context, full compliance with laws and legislation regulating the work life as well as respecting human rights are our red lines.

### Strong value added through smart transportation systems

Smart transportation systems is the backbone of The Northern Marmara Motorway, its life source!

Economic sustainability of our transportation corridor which hosts an intensive crossing of vehicles is mostly provided by smart transportation systems; comfort, safety and satisfaction of users are achieved. Our mission in this area is to develop transportation systems

focused on people and environment with advanced information technologies; to support local and domestic production with universities, start-up projects and R&D firms; to provide infrastructural opportunity open for new and sustainable developments.

It is also useful to remind the smart transportation projects we completed so far and common goals of projects we have on our agenda. First of all is to increase traffic safety which plays an important role in providing social and economic sustainability and uninterrupted transportation services.

Our second goal is directly connected to our corporate resilience, that is to foresee elimination of risks against potential scenarios through instant response method.

Our third goal is an area that demonstrates the importance of our smart transportation system infrastructure; to feed our field teams and related institutions with fast and accurate information in the occurrence of an event and to make them take action.

Finally, we believe that we have a lesson to learn from every event we experience; we aim to prevent reoccurrence of any deficiencies by their analyses and to build an infrastructure based on artificial intelligence including measurement, information, auditing and guidance functions.

As of 2022 year-end, the number of our smart transportation system equipment is 5,818 and they work on a platform equipped with updated technology.



## MESSAGE FROM THE CEO



### THE NORTHERN MARMARA

### MOTORWAY WORKS

### COMPLETELY WITH THE

### MIND, KNOWLEDGE,

### EFFORT AND DEVOTION OF

### PEOPLE OF OUR COUNTRY

### WITHOUT RECEIVING ANY

### CONSULTANCY FROM

### OTHER COUNTRIES.



This huge technological network number, together with the effort and skills of our 32 employees, presents the opportunity for us to provide uninterrupted and qualified motorway management services we defined in our mission.

#### Key projects

In 2022, the Northern Marmara Motorway continued to launch key projects.

Each one of these projects are first in terms Turkey's highway transportation. Projects will strengthen the value proposition of our Management to motorway users and that will add new dimensions to comfort and safety.

With ADES project, a smart transportation system was launched which gives early warning for climate-based frost conditions and informs drivers through informative screens against frost risk.

Illuminated Fog Corridor project means lightening of lanes in certain locations where fog comes down. This project minimized accidents and loss of sight due to fog.

The fiber internet network infrastructure we have been working on with Türk Telekom provides for establishment of a 36 thousand km fiber optic cable line on the Northern Marmara Motorway with an investment amount of TL 25 million. Upon completion of this project, our Company will assume a key role in hosting the third backed up cross-continental fiber internet network infrastructure.

#### Success we accomplish in compliance to climate change today will provide contribution for tomorrow's corporate resilience.

Reduction of our carbon footprint and zeroing it in the medium-term is among sustainability targets of our Management.

It is important that we should adapt our business continuously and take effective investment decisions to be more resilient and prepared for climate change which will result in more frequent and stronger weather conditions in the future. We should not forget that an achievement we record today in compliance with climate change will contribute to corporate resilience tomorrow.

#### The big change is preparing us for the future

As our planet and humanity are combatting against the devastating impacts of climate crisis that accelerated in recent periods, a big change and transformation is happening in every aspect of life. This change is evident specifically in three areas.

First of these changes is the change process in labor market. Second area is the energy sector; transition to renewable resources will play an important role in defining the future. The third topic is the power of geopolitical developments shaping our economies.

In such a dynamic environment and a globally critical geographic area, we are focused more on providing better, more comfortable and more technological services.

The Northern Marmara Motorway works completely with the mind, knowledge, effort and devotion of people of our country without receiving any consultancy from other countries. We are the only transportation project among the public-private sector cooperation projects still pursuing its investments with its own equity, since the opening day.

We see this business approach and innovative services we provide as a permanent added value for the future of our country.

Demand for travelling at smart motorway network will continue to increase; everyday millions of people will travel for business, vacation, entertainment and many different motives.

We believe that the transportation network of the future will be less problematic, smarter and more sustainable.

Performance built by the Northern Marmara Motorway in 5 years is a point of honor and it guides us for building achievements in the future.

Before ending my remarks, I would like to express my gratitude to all our employees who made our 2022 performance possible with their devoted work, to millions of stakeholders who preferred us for transportation and to our shareholders which make us present with their uninterrupted support.

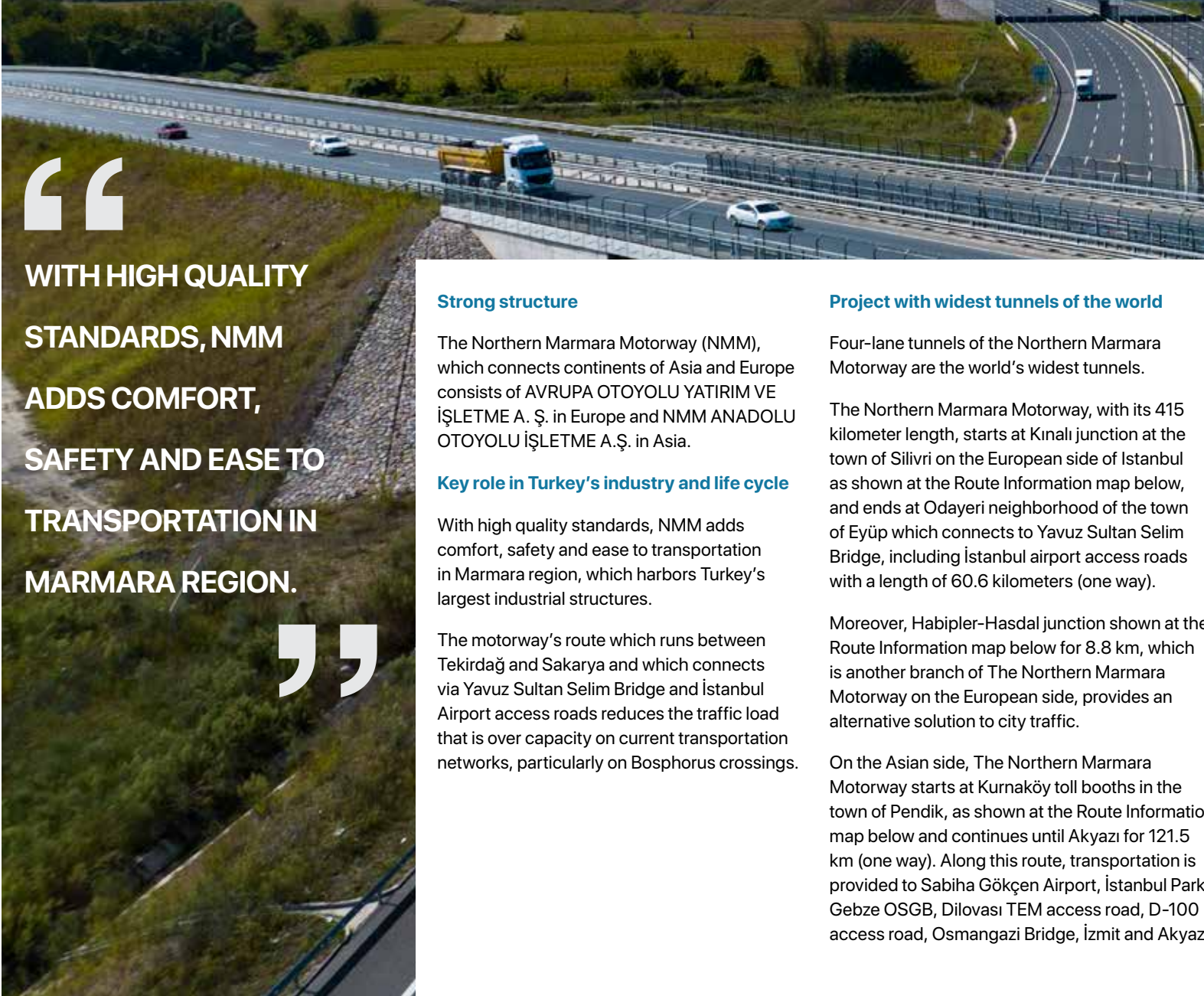
Respectfully,

**AYNUR ULUĞTEKİN**

The Northern Marmara Motorway CEO



## NMM IN BRIEF



WITH HIGH QUALITY STANDARDS, NMM ADDS COMFORT, SAFETY AND EASE TO TRANSPORTATION IN MARMARA REGION.



### Strong structure

The Northern Marmara Motorway (NMM), which connects continents of Asia and Europe consists of AVRUPA OTOYOLU YATIRIM VE İŞLETME A. Ş. in Europe and NMM ANADOLU OTOYOLU İŞLETME A.Ş. in Asia.

### Key role in Turkey's industry and life cycle

With high quality standards, NMM adds comfort, safety and ease to transportation in Marmara region, which harbors Turkey's largest industrial structures.

The motorway's route which runs between Tekirdağ and Sakarya and which connects via Yavuz Sultan Selim Bridge and İstanbul Airport access roads reduces the traffic load that is over capacity on current transportation networks, particularly on Bosphorus crossings.

### Project with widest tunnels of the world

Four-lane tunnels of the Northern Marmara Motorway are the world's widest tunnels.

The Northern Marmara Motorway, with its 415 kilometer length, starts at Kınalı junction at the town of Silivri on the European side of Istanbul as shown at the Route Information map below, and ends at Odayeri neighborhood of the town of Eyüp which connects to Yavuz Sultan Selim Bridge, including İstanbul airport access roads with a length of 60.6 kilometers (one way).

Moreover, Habipler-Hasdal junction shown at the Route Information map below for 8.8 km, which is another branch of The Northern Marmara Motorway on the European side, provides an alternative solution to city traffic.

On the Asian side, The Northern Marmara Motorway starts at Kurnaköy toll booths in the town of Pendik, as shown at the Route Information map below and continues until Akyazı for 121.5 km (one way). Along this route, transportation is provided to Sabiha Gökçen Airport, İstanbul Park, Gebze OSGB, Dilovası TEM access road, D-100 access road, Osmangazi Bridge, İzmit and Akyazı.

# 415 km

NMM's 415 km route starts at Silivri at the European side and ends at Akyazı at the Asian side.



# 4-lane tunnels

NMM's 4-lane tunnels are the world's widest tunnels.



## NMM IN BRIEF



**WITHIN THE SCOPE OF BUSINESS CYCLE, NMM TAKES SUSTAINABILITY AND ESG SUBJECTS INTO CONSIDERATION AT ITS DAILY SERVICE EXECUTION.**



### Strong value proposition reinforced with smart transportation systems (STS)

Equipped with end-to-end smart transportation system technologies, the purpose of NMM is to make people reach their loved ones and their businesses safely and healthy.

NMM, monitored by data from cameras located across the highway route, changing messaging boards, changing traffic signs, traffic count sensors, meteorology stations and Scada tunnel/ highway security system is being controlled from one main and two sub-control centers 24/7 for highway security.

NMM has the capacity to respond to unwanted events at the traffic flow quickly and providing uninterrupted, comfortable and high quality highway traffic service is the Company's main corporate target.

### Project and operating approach focused on sustainability

From the start of the project, NMM has internalized its focus on sustainability, particularly environmental management and established them in a systematic structure. At the project phase, detailed field work was performed about the environmental and social components; further activities were performed for potential impacts during the construction and management phases and their mitigation. These activities were conducted in accordance with laws and regulations of Turkey, Ecuador Principles and IFC Sustainability Framework; Environmental and Social Impact Assessment was prepared.

Within the scope of business cycle, NMM takes sustainability and ESG subjects into consideration at its daily service execution and launches new applications.

## 24/7 monitoring

At NMM, highway security is monitored from one main and two sub-control centers.

## STS

Equipped with end-to-end smart transportation systems, NMM's purpose is to make users reach their destinations healthy and safely.





## NMM'S VISION AND MISSION



### NMM'S VISION

TO BE AN INNOVATIVE AND LEADING INSTITUTION IN THE SECTOR OF HIGHWAY MANAGEMENT WHICH FOLLOWS THE CURRENT AND LATEST TECHNOLOGY, UPDATES ITS SERVICE PROCESSES WITH DEVELOPMENTS IN THIS AREA, AIMS TO SATISFY HIGHWAY USERS, REGIONAL COMMUNITY, EMPLOYEES, STAKEHOLDERS AND ALL PARTIES WE INCORPORATE WITH.

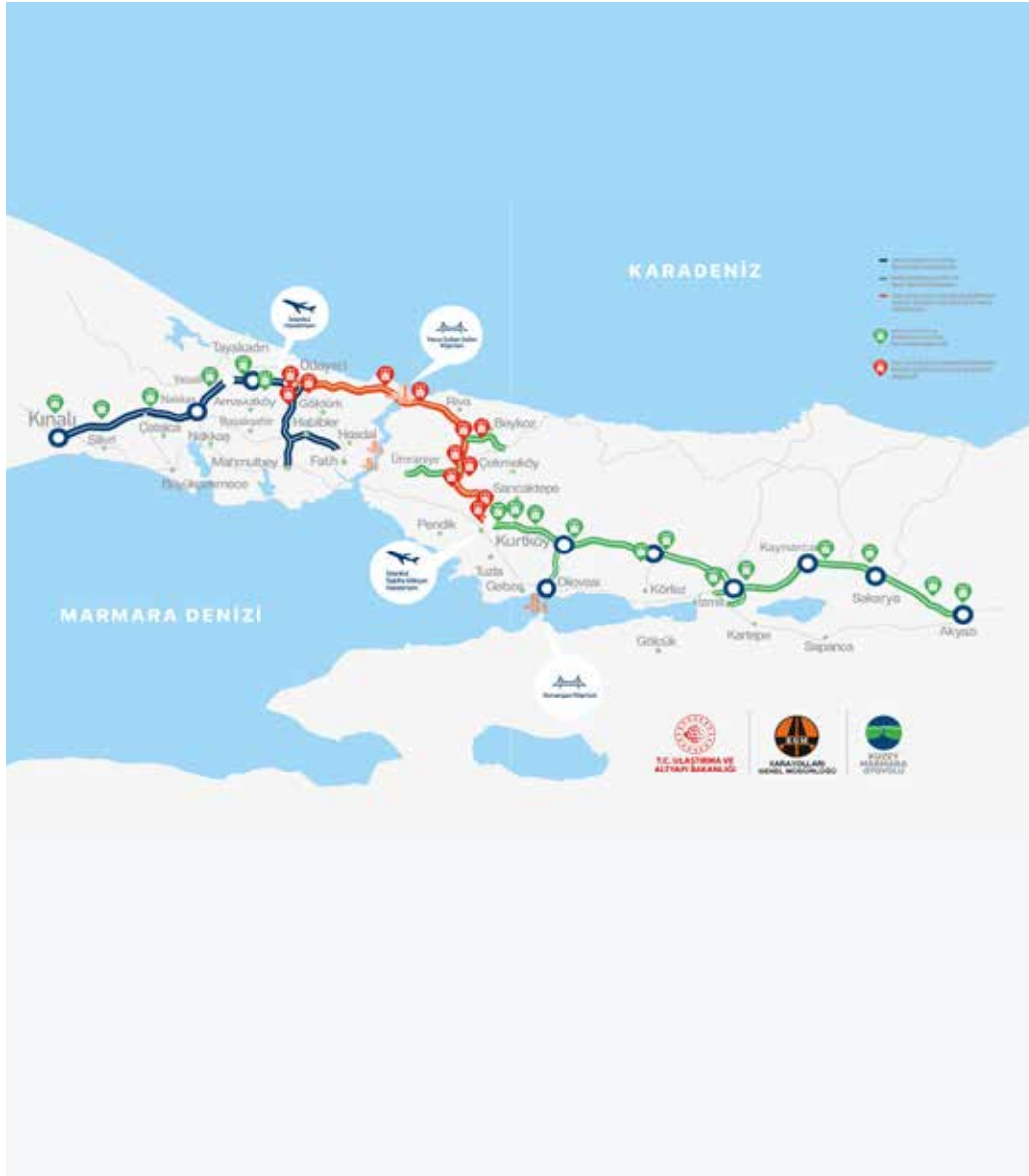
### NMM'S MISSION

TO PROVIDE HIGHWAY MANAGEMENT SERVICE THAT CREATES VALUE FOR THE ECONOMY AND COMMUNITY BY DEVELOPING OUR EXPERIENCES WITH SAFETY, COMFORT AND TECHNOLOGY, WITH A SOCIAL RESPONSIBILITY APPROACH AND BEING OPEN TO CONTINUOUS DEVELOPMENT.





# NMM'S ROUTE



## EUROPEAN SECTION

Kinalı-Odayeri Section's project of the Northern Marmara Motorway including the 3<sup>rd</sup> Bosphorus Bridge and access roads was designed with a main body of 70 km and access roads of 29.5 km.

The project route starts at Kinalı at the border of Istanbul on the European side, connects to Yavuz Sultan Selim Bridge and Access Roads Project at Odayeri junction, passing through Silivri and Çatalca in Istanbul; starts at Habibler junction in Istanbul and connects to TEM highway via Hasdal junction.

- 9** access roads
- 29.5** km
- 14** junctions
- 6** toll booths



## ANATOLIAN SECTION

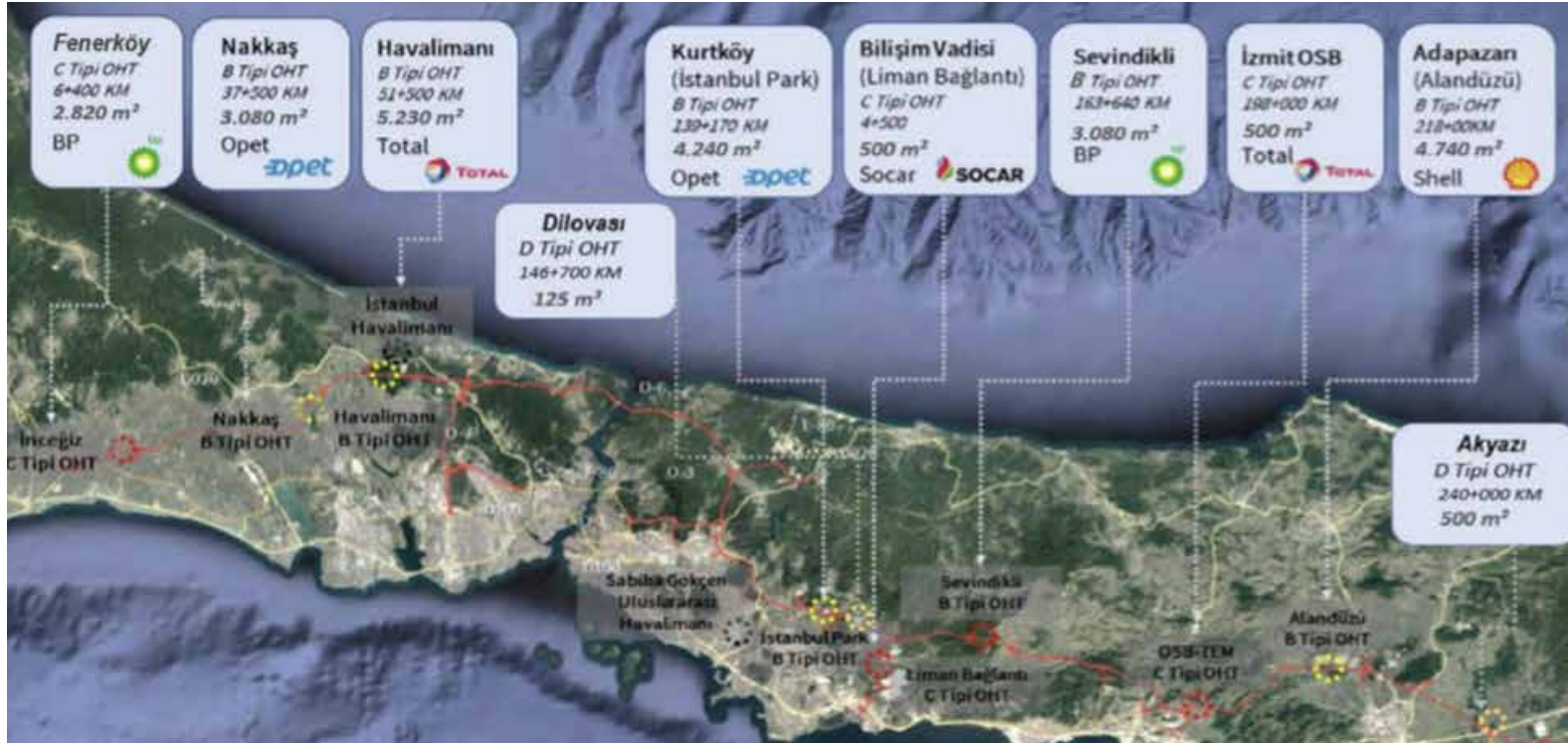
Kurtköy-Akyazi Section's project of the Northern Marmara Motorway including the 3<sup>rd</sup> Bosphorus Bridge and access roads was designed with a main body of 122 km and access roads of 49 km.

The project route on the Asian side starts at İstanbul Pendik Kurtköy, at the end of Yavuz Sultan Selim Bridge and Access Roads Project, connects to TEM-Gebze and Osmangazi Bridge via Liman access road, to Kandıra junction and TEM-İzmit access road following North of Kocaeli and Adapazarı and to TEM Highway via Akyazi junction at the end of the project.

- 17** access roads
- 49** km
- 25** junctions
- 14** toll booths



## MOTORWAY SERVICE CENTERS



## 10 MSCs

Along the route of NMM, there are 10 MSCs.



Motorway service centers (MSC) at the route of NMM consist of fuel dispensing stations, motorway service buildings and other service buildings.

- Fuel and LPG dispensing stations and high quality MSCs include restrooms, restrooms for disabled, breastfeeding rooms, family restroom, praying room, parking for heavy and passenger vehicles, medium and large-scale commercial areas including modern and attractive food and beverage units.
- As the concepts of renewable energy and green roads increased lately, AC&DC charge stations for electrical vehicles were launched.
- Along the route of NMM, there are 10 MSCs (9 on both sides of the road, 1 single-side). There are 16 fuel stations operating at each side of the road at 8 individual locations.
- Management of fuel stations are being conducted by the largest fuel dispensing companies of Turkey, BP, SHELL, OPET, TOTAL and SOCAR under lease contracts covering the management period. 16 of them are operating and they provide secure services 24/7.
- MSC occupies approximately 66,000 m<sup>2</sup> of construction area. Centers were designed to have 30,000 m<sup>2</sup> of leasable area.
- For the 30,000 m<sup>2</sup> of leasable area and project investment for the above mentioned area where MSC construction started, additional term will be obtained from General Directorate of Highways (in addition to NMM's current management term) and the management term will be extended to the end of 2045.





# ELECTRICAL VEHICLE CHARGING STATIONS

In accordance with its steps in the areas of continuing transformation to electrical vehicles and transition to carbon-free economy, NMM sets up electrical vehicle charging stations that support green road emphasis along the route of the motorway.

## KEY INDICATORS



**Electrical vehicle charging stations completed (number)**

Europe	<b>25</b>
Anatolia	<b>50</b>
Total	<b>75</b>



**Transformers completed (number)**

1,000 kVA	<b>11</b>	<b>Total Power 20,450 kVA</b>
1,250 kVA	<b>5</b>	
1,600 kVA	<b>2</b>	



**Electrical vehicle charging stations planned to be established (number)**

Europe	<b>30</b>
Anatolia	<b>24</b>
Total	<b>54</b>



**Transformers planned to be established (number)**

1,000 kVA	<b>2</b>	<b>Total Power 8,950 kVA</b>
1,250 kVA	<b>3</b>	
1,600 kVA	<b>2</b>	





# SUSTAINABILITY APPROACH

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25 INTEGRATED MANAGEMENT SYSTEM (IMS)



## OUR SUSTAINABILITY FRAMEWORK



A DYNAMIC HIGHWAY INFRASTRUCTURE, BRINGING PEOPLE TOGETHER AND HAVING A SIGNIFICANT ROLE IN THE CYCLE OF LOGISTICS OF GOODS AND SERVICES, IS VITAL FOR A COUNTRY'S ECONOMIC AND SOCIAL DEVELOPMENT.



AS ONE OF TURKEY'S LEADING HIGHWAY ADMINISTRATORS, NMM PROVIDES LIFE LINE SUPPORT TO THE ECONOMY, AIMS TO PROVIDE SOLUTION TO URBAN TRAFFIC JAMS FOR FUTURE GENERATIONS AND ADAPTS SUSTAINABILITY AS AN INSEPARABLE PART OF ITS BUSINESS STRATEGY.



As the world discusses the impacts of the climate crisis, it also trying to find ways to fight against challenges presented by increase in population and rapid reduction in nonrenewable resources.

As a corporate citizen, NMM is open to continuous development and acts with a social responsibility approach as presented in their mission. At the same time NMM develops its experiences with safety, comfort and technology and provides motorway management services creating added value to economy and community.

NMM adopts a sustainability framework which includes environmental, social and governance (ESG) elements as well as economic ones into its decision making processes and strategic approaches for supporting a sustainable and livable world.

This framework is designed by the Company's Vision and Mission and goes on three main tracks to focus on creating a long-term shareable common value.

### Contribution to Economic Development- Bringing People Together- Increasing Quality of Life and Welfare

These three bases steer our determination and our actions towards transformation and strengthening of the mobility infrastructure, connecting people and communities to each other for better social and economic integration and operating responsibly as part of managing our environmental impact.



## NMM MATERIALITY ASSESSMENT



### NMM CONDUCTED

### A COMPREHENSIVE

### STAKEHOLDER ANALYSIS

### IN 2023 WITHIN THE SCOPE

### OF ITS SUSTAINABILITY

### ACTIVITIES.



NMM conducts continuous communication with its stakeholders to take the right steps and create value in accordance with its mission.

Within the scope of the preparation of its Sustainability Report, NMM planned and completed its materiality assessment in July and August.

The materiality assessment which connects NMM's internal dynamics and changing conditions of the world was completed by an independent firm experienced in this area. Materiality assessment, which played a role in defining

NMM's sustainability road map and goals, started with a workshop attended by stakeholders with the purpose of identifying material issues.

Sustainability trends of competitors, non-profit organizations and market leaders in NMM's operational areas were reviewed. Other topics considered during this analysis were as follows:

- NMM's operations, mission and vision
- Sustainability frameworks (GRI, CDP, SASB, UNSDG, UNGC)
- Industry disclosures and reports

Materiality survey was delivered to 653 people and 388 participants responded either via e-mail or telephone. Within the scope of the analysis, stakeholders were asked how NMM's impact in matters related with ESG was perceived.

#### Analysis phase

During the executive management review, a materiality matrix was formed based on the results combined from the responses from stakeholders. GRI references used in the report were updated based on material issues and results of the analysis were reflected at the report.

STRATEGIC SUSTAINABILITY MATERIALITY MATRIX			
Impact and importance for the stakeholders	High	-	Equal Rights and Diversity at Work Legal Compliance Protection of Personal Data
	Medium	Suppliers' Environmental, Ethical and Social Compliance	Social Responsibility / Social Contribution Cyber Security Service Quality Water Management Customer Satisfaction Carbon Reduction Reputation Management Environment-friendly Materials Bio-diversity Environment-friendly Buildings (Green Buildings, Smart Buildings, etc.)
	Low	Solid Waste Management	Innovation- R&D Technological Investments Digitalization Investments
	Low	Medium	High
Impact and importance for the Company			



# NMM MATERIALITY ASSESSMENT

“TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT” SIGNED BY 193 COUNTRIES WHICH ARE MEMBERS OF UNITED NATIONS ON 25 SEPTEMBER 2015 CONSIST OF 17 SUSTAINABLE DEVELOPMENT GOALS AND SUB TOPICS.

## NMM's Contribution to Sustainable Development Goals

17 Sustainable Development Goals (SDG) demonstrated a much wider sustainability agenda and went beyond Millennium Development Goals. The goals aim to find solution to main causes of poverty and provide development for everyone as a global need. Global consensus around SDG points out a

significant turning point to direct our globe to a more inclusive and sustainable growth path.

NMM believes that Sustainable Development Goals contribute to develop collaboration in different platforms, to accelerate contribution to the goal of environment protection and efficient use of resources, to strengthen the value created and finally to deepen stakeholder relations further.

NMM defined (3) Good Health and Well-being, (5) Gender equality, (8) Decent work and economic growth, (9) Industry, innovation and infrastructure, (10) Reduced inequalities, (11) Sustainable cities and communities, (12) Responsible consumption and production and (13) Climate action as SDG it directly contributes to.

These materialized 8 SDG are related with NMM's strategy and they are areas the Company concretely contributes in line with its sustainability targets.



### Good Health and Well-being

Health and safety of our stakeholders is the key stone of our business. We apply the strictest highway safety standards to protect well-being of them, from employees to highway users, from construction workers to communities we interact with.



### Gender Equality

We are proud of our women employees' contributions. We set increasing the number of women employees we hire every period as a significant target. We are honored to encourage gender equality within the Company. We also provide opportunities for women to be represented at men-dominated positions to provide highway security.



### Decent Work and Economic Growth

Our employees perform fair and reasonable jobs and receive fair and reasonable wages independent of their gender, race, language and religion. With our motorway infrastructure, we contribute directly and indirectly to productive cycle of Turkish economy and economic activities of the regional community.



### Industry, Innovation and Infrastructure

Innovation and technology are the foundations of our business. With the innovative applications we implement, we provide for business continuity and prepare our business for the future. To increase our efficiency, to take precautions for climate change and to develop our customer experience, we make use of innovation and technology from our Company's headquarters to motorway operations.



### Reduced Inequalities

Reduced inequalities require implementing applications which include everyone in the economic cycle. Effective, safe and uninterrupted transportation possibility we provide in a region that is accepted as the heart of the Turkish economy contributes to balanced distribution of economic welfare. The most recent example of our projects serving equal opportunity is our project of employing individuals with autism.



### Sustainable Cities and Communities

Through our energy-efficient solutions such as LED lighting at service centers and motorways, we contribute to environmental sustainability. Moreover, we are focused on responsible consumption to reduce waste and to reduce our carbon foot print. Our motorways provides and affordable alternative that brings people together and makes sustainable development possible in urban and rural areas.



### Responsible Consumption and Production

We monitor our consumption of energy, water and paper and take measures to reduce our environmental foot print. Additionally, we adopt sustainable solutions to protect environment when possible and we apply responsible techniques in construction of our motorways.



### Climate action

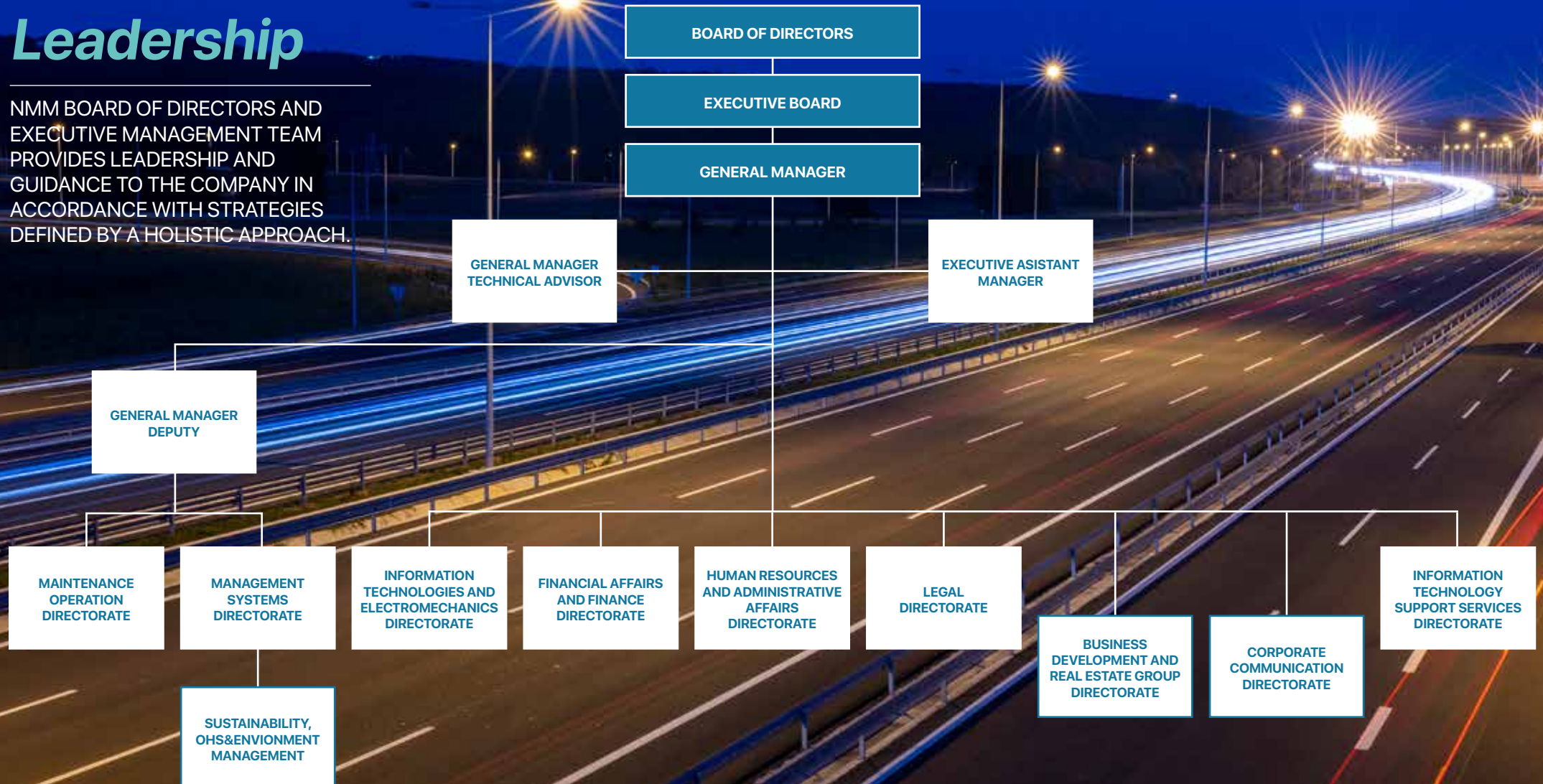
We focus on energy-efficient solutions in highway management, adopt sustainable development applications and contribute to climate action. We will continue to monitor our ecological foot print to minimize negative impacts and to apply the most appropriate impact reduction precautions.



# NMM ORGANIZATION STRUCTURE

## Leadership

NMM BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT TEAM PROVIDES LEADERSHIP AND GUIDANCE TO THE COMPANY IN ACCORDANCE WITH STRATEGIES DEFINED BY A HOLISTIC APPROACH.





## NMM ORGANIZATION STRUCTURE

### 5 members

In today's dynamic and changing economic and market conditions, corporate governance is the key to corporate success.

#### NMM Board of Directors

NMM Board of Directors defines the general limits of the Company's risk appetite, monitors development in external and operational risks periodically and determines guiding policies and decisions in this area.

NMM Board of Directors consist of a total of 5 members. Review and assessment of company policies, strategies, critical decisions and processes such as budgeting, strategic investments are done once in 6 months.

Corporate governance activities conducted by the Board of Directors at NMM are as follows:

- Development of corporate risk, compliance and ethics culture, establishment and approval of strategy and target sets, execution and monitoring of these targets
- Identification of risks with a possible impact to the Company, mitigating them and systematic monitoring
- Approval, execution and monitoring of sustainability goals and actions.

In today's dynamic and changing economic and market conditions, corporate governance is the key to corporate success. With the changing legal framework and continuously developing global and local market conditions, NMM Board of Directors reviews and updates governance applications regularly. With corporate governance activities conducted by focusing on transparency, shareholder and stakeholder interests are protected and developed in the best manner.

#### NMM Board of Executives

NMM Board of Executives is comprised of representatives of our sponsoring firms with 5 members of which 2 are women.

Board of Executives meetings are organized and held once a month to discuss matters such as review of realization of annual budget, strategic investments and review of technical issues.

#### Senior Management

NMM conducts its daily business cycle within the framework of its execution function in line with its mission, vision and corporate strategy.

The Company's business cycle is conducted under the guidance of the CEO, activities of Vice Presidents and department managers and contribution of all departments based on their job descriptions and responsibilities.

The execution approach adopted by NMM foresees handling and responding to the expectations of customers, human resources, suppliers and shareholders in an ethical, balanced and fair manner, oversight of sustainability as a main focus and creating permanent value.





## SUSTAINABILITY MANAGEMENT AT NMM

Sustainability Strategic Committee was established to support identification and development of policies and targets defined in accordance with NMM’s strategy in environmental, social and governance areas. Moreover, 7 operational groups were formed. The Committee reports its activities to the Board of Directors.

STRATEGIC COMMITTEE		Board of Directors			
		Senior Management Sustainability Representative	Sustainability Scope	Meeting Frequency and Agenda	
			Determines the sustainability vision and strategy	Review of critical ESG (Environmental-Social- Governance) topics. Twice a year.	
	Sustainability Committee				
	Chairman of the Sustainability Committee	Coordination of Sustainability Committee Representation and Reporting	Committee Members	Sustainability Scope	Meeting Frequency and Agenda
				<ul style="list-style-type: none"> <li>Reviews and approves sustainability targets</li> <li>Reviews and establishes sustainability sub-working groups</li> <li>Reviews and approves environmental-social criteria in terms of sustainability in investments</li> <li>Monitors sustainability KPIs</li> </ul>	2-4 times a year. Review of status of targets, projects implemented and at the project stage.

OPERATIONAL GROUPS	Sustainability Committee Sub-Working Groups				
	Working Group	Management	Sustainability Scope	Meeting Frequency and Agenda	
	Occupational Health and Safety Working Group	Committee Leader	<ul style="list-style-type: none"> <li>Identifies, monitors and reports on sustainability targets</li> <li>Establishes project groups</li> <li>Monitors project implementations</li> </ul>	Meeting frequencies and agenda of Sustainability Committee Sub-Working Groups are determined based on developing context and urgency of the subjects.	
	Environmental Working Group	Committee Leader			
	Decarbonization	Committee Leader			
	Employee Rights Group + Human Resources + Ethics	Committee Leader			
	Social Responsibility Working Group	Committee Leader			
	Sustainability Communication	Committee Leader			
Digitalization	Committee Leader				





## WORKING PRINCIPLES OF NMM SUSTAINABILITY COMMITTEE

### Leadership

Provides support for establishment of the Company's strategy and policies.

Sustainability Committee which was established with the objective of supporting identification and development of strategy, policies and targets regarding sustainability. It will also review economic, social and environmental impacts of these objectives and targets.

The Committee will report to the Board of Directors every year on social, environmental, governance and ethics performance.

The Committee is comprised of a senior strategic committee and seven operational sub-committees. The senior strategic committee is led by a representative of the Board of Directors. The representative(s) are appointed so that sustainability matters are represented at the

Board of Directors; committee organization and activities are realized accordingly.

Scopes of work of operational sub-committees:

- Occupational Health and Safety Working Group
- Environmental Working Group
- Decarbonization Working Group
- Employee Rights Group + Human Resources + Ethics Working Group
- Social Responsibility Working Group
- Sustainability Communication Working Group

Strategic senior sustainability committee meets twice a year and operational sub-committees meet 2-4 times a year. They can also be called for additional meetings when needed. Meeting agenda is determined by the committee leader and announced to participants. Suggestions from members, if any, are added to the agenda.

Members from outside the Company can be appointed to the committee with the anonymous decision of the committee. The Committee can invite people from inside or outside of the Company to the meetings and get their opinions. The Committee meets with absolute majority and takes its decisions with the majority of the participants of the meeting. Minutes of the meetings are prepared by the committee secretary after the meetings.

#### ROLES AND RESPONSIBILITIES OF THE COMMITTEE

- Provides support for the establishment of the Company's sustainability strategy and policies. Provides support for the implementation of goals and road map which are in line with accepted strategy and policies.
- Controls the activities to define and manage the risks and opportunities at the Headquarter offices and work fields. Reports the necessary information to related locations/departments as a result of its controls for the appropriate management of economic, environmental and social risks/opportunities.
- Performs activities to improve the Company's sustainability performance.
- Provides support for conducting corporate social responsibility projects in line with the United Nations Sustainable Development Goals.
- Follows "mega trends" and coordinates necessary communication to reflect results of these on the Company's business manners.
- Provides support for developing corporate and operational infrastructure for sustainability programs and applications, makes delegations when necessary.
- Works on developing loyalty to sustainability policies and provides support to expand sustainability approach within the Company.
- Supports the applications for the identification, encouragement and expansion of best practices.
- Encourages initiatives and activities in sustainability area inside and outside the Company, coordinates expansion of them when needed.
- Reviews potential sustainability initiatives and its costs; authorizes them.
- Communicates with institutions in sustainability area and cooperates with them when needed.





## INTEGRATED MANAGEMENT SYSTEM (IMS)

Successfully completing the certification preparation activities for ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System, and ISO 45001:2018 Occupational Health and Safety Management System, NMM was certified by Cicert Certification Services accredited by TÜRKAK.

In 2023, external audit of certifications were performed by Cicert Certification Services and NMM successfully passed the audit with "0" non-compliance.

### ISO 39001:2012 Road and Traffic Safety Management System

Preparation for certification for ISO 39001:2012 Road and Traffic Safety Management System were completed. This system to provide possibility for keeping safety of employees and highway users, defining needs, control and management of variables and cooperation of each institution which interact with the road system to reduce deaths and severe injuries.

Within the context of Company policy and target of "continuous improvement" and within the scope of developing the current infrastructure, increasing satisfaction of employees and highway users, turning the measures and precautions to be taken for reduction of potential risks into opportunities, Requirements and Internal Inspector trainings were delivered; awareness activities were completed.

As a result of the external audit performed by Cicert Certification Services on 25-26 July 2023, NMM was entitled to ISO 39001:2012 certificate on 10 August 2023.

### Certifications processes in progress

#### ISO 27001:2022 Information Security Management Systems (ISMS)

Activities have started at NMM within the scope of ISO 27001:2022 Information Security Management Systems standard which will assure privacy, integrity and accessibility of information that belong to employees and all stakeholders who are interacted with are kept within the scope of risk management process and managed properly. This standard is extremely significant for organizations and institutions in terms of cyber security.

With the revisions and changes particularly in information security incidents, information security breach incidents and information security breach non-compliance topics, this system is expected to help organizations to bring light on responding to incidents by the parties, accessing root causes and identification of the organization's needs.

The legal counsel delivered an awareness and informative training on this process on 3 June 2022. To increase awareness in 2023, NMM planned trainings at NMM maintenance operating centers, firstly at AKM.

#### ISO 27701:2019 Privacy Information Management System (PIMS)

Set up activities started by integrating this standard with ISMS within the scope of protection of privacy, source and reliability of information, personal data breaches, management process, information processing goals and targets, privacy of personal data within the scope of personal rights and freedom and information management.

Data inventories are being established for activities for protection and management of personal data and information privacy of all customers, related parties and employees.

#### Auditing calendar and realizations within the scope of ISMS and PIMS:

In accordance with the target of realizing internal audits effectively, internal inspector training was delivered on 2 August for NMM employees within the scope of ISMS and PIMS. Audits planned for 13-15 September were completed.

First phase of audits to be performed by Cicert Certification Services was planned for 28-29 September and the second phase was planned for 11-13 October. Preparation for the process continue at all departments of NMM.





## INTEGRATED MANAGEMENT SYSTEM (IMS)

### INTEGRATED MANAGEMENT SYSTEM (IMS) POLICY

As the Northern Marmara Motorway, with our route as the extension of existing highway networks, we aim to provide safe, comfortable, high technology, economic and environmentally-conscious highway management and maintenance services putting people's health and safety first.

With this purpose we are committed to realize the followings:

- To provide top quality service to meet increasing expectations of motorway users and regional communities, without compromising necessary conditions for secure driving by improving existing conditions,
- To build communication channels for employees and employee representatives for solidarity and contribution, to provide effective communication in cooperation with all our stakeholders considering their needs and expectations.
- To identify risks about traffic accidents that may cause death, injury and material losses, to conduct preventive activities to reduce traffic accident caused losses.
- To conduct activities to increase our employees' consciousness about "Quality", "Environment", "Occupational Health and Safety" and "Road Traffic Safety", job performance and satisfaction with the awareness of the fact that the most significant factor in reaching our goals is qualified human resources.
- To remove potential hazards that may result from our services and risks from environmental perspective, to prevent potential environmental accidents, injuries and health deteriorations by establishing safe and healthy working conditions at our work places.
- To protect all critical information assets and all personal data processed in the system, to work in compliance with contracts and international standards within the framework of information security and personal data privacy, to manage risks and opportunities within the information security and privacy management system, to conduct correcting and improving activities and to set up a sustainable system in line with establishment purpose.
- To conduct our activities in line with related legal and other conditions with our integrated management system set up in accordance with international standards by implementing applications open to continuous improvement and development, to make these applications measurable, accessible and trackable.





# OUR CONTRIBUTION TO MOTORWAY USERS

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## OUR CONTRIBUTION TO MOTORWAY USERS



- With main engineering buildings (viaducts, tunnels, overpasses, underpasses and headwalls), safety and quality of services and centers of a motorway may have impact on users' physical and mental health and overall comfort.
- Besides maintenance and sustainability of the road ecosystem, NMM is focused on proactive management of smart transportation systems.
- Within the context of our passengers, providing safe and sufficient resting areas that offer comfort and ease is another priority.
- The importance we give to safety, including the security of the project area is significant in our interaction with our stakeholders.
- Developing NMM's service value proposition by making use of information processing spine, innovation and smart technologies.

### Comfort

NMM provides services to its customers with an infrastructure and superstructure offering comfort.

### Safety

NMM's main commitment to its stakeholders.

### Technology

NMM uses technology to develop its service value proposition.



## NMM INFRASTRUCTURE SYSTEMS

NMM Data Center and Infrastructure Systems operates the largest data center systems within the whole Build-Operate-Transfer model. It has the same system architecture of medium segment service providers.

- ▶ Data center which has the latest technological products used at NMM operations has internationally renowned TIER 3 standards.
- ▶ An infrastructure was set up to allow all devices in the field to work 99.99% uptime.
- ▶ Toll Collection, Smart Transportation and User systems all provide uninterrupted service.
- ▶ Data at motorway operation works actively at 2 Data Centers.
- ▶ There are Air Conditioning UPS and Gas Extinguishing Systems to provide 24/7 uninterrupted service.
- ▶ As a service provider, there is a fiber optic infrastructure which has a separate route from ISP firms (Türk Telekom and Superonline). Moreover there is Radio Link back up.
- ▶ For the Uninterrupted Electrical System, cable redundancy is provided from 2 different UPS and transformer buildings via a separate route.
- ▶ Generator redundancy is provided with uninterrupted power supply.
- ▶ For operational continuity, 6 operation center structures (TIM, BIM) were established

## NMM SECURITY SYSTEMS

The Northern Marmara Motorway Security Systems performs the operation of the largest security systems within the Build-Operate-Transfer model and it is a system equivalent of a medium-sized bank.

### Security System Solutions

NMM has security system solutions converging to a bank level.

Security system solutions known in information security area are summarized at the table on the side. Systems structured at NMM are highlighted. As you can follow from the table, 26 of the 38 security solutions are used within NMM.

Highlighted systems in green boxes are actively being used at NMM.

Security document management	Cyber security	Identity access control	Telco and network security	Secure software development	Cryptography	Change management	Security monitor	Weakness scanning and management	Data protection
CMDB	EDR	Password manager	Firewall	Static code analysis	CA server	Service desk	SIEM	Weakness scan	DLP
	Antivirus	IDM	IPS				SOAR		
GRC	E-mail security	Ldap	WAF	Dynamic code analysis	HSM		EUBA	Package multiplexing system	MDM
			Ddos				Proxy	Cyber intelligence service	Weakness identification (Picus etc)
Procedure and policy	Sandbox	Radius	Honeypot	Disc encrypting	Teknik durum izleme				
		PAM	SSL VPN						
			NAC						
			VAN						



## SMART TRANSPORTATION SYSTEMS

### NMM Smart Transportation Systems Mission

- ▶ To develop transportation systems focused on people and environment with Advanced Information Technologies,
- ▶ To support domestic and national production with universities, start-up projects and R&D firms,
- ▶ To provide infrastructure opportunities for sustainable and new developments.

### NMM Smart Transportation Systems Vision

Our main goals in our investments completed and in progress, as The Northern Marmara Motorway are presented below:

- ▶ Increasing traffic safety and providing uninterrupted transportation service,
- ▶ Preventing risks via instant response to potential scenarios,
- ▶ Mobilizing field teams and related institutions under incidents rapidly and with the most accurate information,
- ▶ For each incident experiences, establishing artificial intelligence based infrastructure with measurement, information, auditing and directing features to analyze weaknesses and prevent their repetition.

The Northern Marmara Motorway creates a difference with the world's largest 4-lane tunnels and 415 km comfortable transportation network equipped with smart transportation systems technology to provide safety of motorway users. The motorway is monitored by smart transportation equipment and Scada tunnel/motorway security system data along the route.

Motorway traffic security at NMM is controlled by monitoring 24/7 from one main and two sub-control centers. The goal is to respond to incidents rapidly and provide uninterrupted, comfortable and highly qualified highway traffic system.

### SMART TRANSPORTATION SYSTEMS (STS) EQUIPMENT

#### Variable Message Signs (VMS-DMI)

Informs drivers of bad weather conditions, heavy traffic, accidents and construction work and help them save in numerous elements such as time and fuel.

#### Variable Traffic Signs (VTS-DTI)

Traffic signs are used to inform drivers with lane guidance and speed limits based on variable road conditions.

#### Closed Caption Television System (CCTV)

CCTV's are used within the scope of monitoring, directing and detecting potential negative events via cameras at the Main Control Center.

#### Meteorology Stations (MS)

At the motorway, meteorology sensors are used within the scope of detection of unfavorable weather conditions (rain, snow, fog, frost, etc.). Actions at field are planned based on the data received from these sensors.

#### Traffic Count Sensors

Information about number of vehicles, class, average speed, time and direction are received at certain locations on the motorway. Moreover, travel time is determined between two specific locations automatically and drivers can be informed via VMS screens.

#### Fog Warning System

Traffic and driving safety is maintained via Fog Warning System located on the majority of the viaducts and when approaching the toll booths on the main body along the motorway.

#### Optical Clearance System

Optical Clearance System was implemented at points where drivers approach tunnels on the motorway to detect vehicles with heights above standards.



## SMART TRANSPORTATION EQUIPMENT IN NUMBERS

EQUIPMENT	EUROPE	ANATOLIA	TOTAL
VMS (Variable Message Signs)	31	51	94
VTS - Variable Traffic Signs including tunnel regions	64	107	171
CCTV Cameras - (DOME-KOA-TRANSFORMER-TUNNEL)	543	1483	2026
TSS - Traffic Count Sensor	35	42	77
MS-Meteorology Sensor	9x3=27	14x3=42	23x3=69
OPTICAL CLEARANCE SYSTEM	7	5	12
FOG WARNING SYSTEM	416	724	1,140
TOTAL	1,129	2,460	3,589







## APPLICATIONS FOR DRIVER SAFETY



**FOR NMM, PREPARING FOR AND PRECAUTIONS FOR STATES OF EMERGENCY ARE A COMBINATION OF IMPORTANT AND CRITICAL PROCESSES FOR BOTH MOTORWAY TRAFFIC MANAGEMENT SERVICES AND MAINTENANCE SERVICES.**



### Motorcycle-friendly barriers in place at the Northern Marmara Motorway

Traffic divider system which is known as motorcycle-friendly barrier was established at sinuous regions where accident risk was detected at the project; thus traffic dividers were placed to reduce motorcycle accident risk and provide a safe driving experience.

These motorcycle-friendly barriers placed under standard traffic divider system as a passive protection arrangement aim to minimize the risk motor bikers face in case of an accident and the first phase of this application was placed at Kinalı toll booth area.

### STATE OF EMERGENCY MANAGEMENT

For NMM, preparing for and precautions for states of emergency are a combination of important and critical processes for both motorway traffic management services and maintenance services. State of emergency planning at the motorway corridor is only possible when potential risks which may cause emergencies are accurately defined and assessed.

Risk assessment and management is important in accordance with compliance with regulations in effect in turkey and international standards.

Reduction of momentary risks and particularly being prepared for earthquakes is possible by accomplishing the targets and procedures listed below:

- Prevention and preparation measures (actions performed before the state of emergency)
- Responding measures (actions performed during the state of emergency)
- Loss assessment and rescue measures (actions performed after the state of emergency).

State of Emergency Preparation and Response Coordinator was elected and State of Emergency Response Teams were formed at NMM in accordance with AFAD plans. Moreover, State of Emergency Response Centers will be established to administer and control the state of emergency responses (under the responsibility of BIM/TIM's).

In accordance with NMM State of Emergency Preparation and Prevention Policy, a partnership protocol was signed with a firm who manages another motorway project under build-operate-transfer model to respond most effectively. NMM management approved the start of activities to strengthen the response plan within the scope of this protocol.

Within NMM, there is an existing 4x4 state of emergency response vehicle. Activities started to equip this vehicle with such equipment that it will only be used for emergency operations.

## State of Emergency Management

NMM's State of Emergency Approach and a scene from a drill





## APPLICATIONS FOR DRIVER SAFETY

### TÜRK TELEKOM 144 CORE FIBER OPTIC PROJECT

NMM prioritizes traffic flow safety monitored 24/7 from traffic control center.

From this point of view, a cooperation protocol was signed between NMM and Turk Telekom to provide continuity of service in case of failure in 32,000 km fiber infrastructure at the service area, which is back-up internally.

Turk Telekom’s new fiber internet network between İstanbul-Kınalı and Sakarya-Akyazı with 250 km length and 144 Core capacity will pass through the infrastructure of NMM.

Back-ups will be set up at 117 points; in the event of failure of fiber cables at the field, road and driving safety will be provided with external Turk Telekom connection.

With the implementation of the project, uninterrupted redundancy will be formed at Toll Collection System and Smart Transportation System. Internet infrastructure will be provided for lessees and customers at motorway service centers (MSC).

With this project, NMM will be hosting the cross continental 3<sup>rd</sup> fiber internet network in Turkey which will have a key role in communication, particularly during natural disasters.

### ILLUMINATED FOG CORRIDOR (FLOOR EMBEDDED LED LIGHTENING R&D PROJECT)

The Northern Marmara Motorway, with a length of 415 km and 44 toll collection points, is the second largest organization providing transportation sector in our country after General Directorate of Highways.

Besides 24/7 uninterrupted service in toll collection systems, safety of lives of drivers using the motorway is also prioritized.

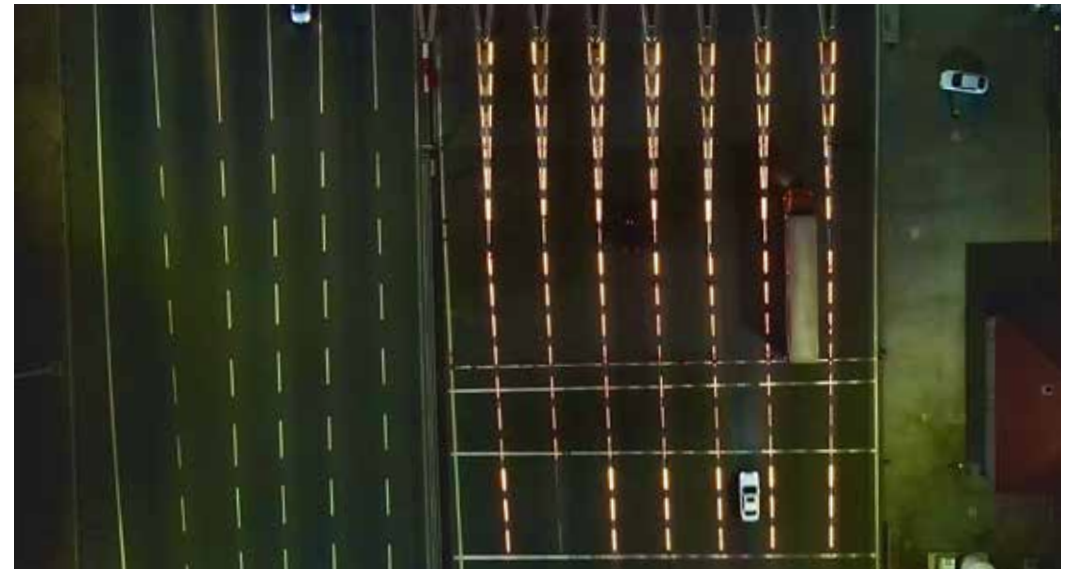
The top challenging weather condition for drivers is fog. Reduced vision during foggy weather makes driving in traffic or for long distance

significantly difficult. Taking bad weather conditions into consideration, a project was started for establishing illuminated fog corridors along the route of NMM to minimize potential accident risk around toll booths and to increase driving safety.

Three prototypes were developed as a result of activities continuing since 2021 within the scope of Floor Embedded LED Luminaire Lightening Project which is a first in Turkey’s highways; the first PoC was established at one booth at Kurnaköy station. Upon successful result, activities at Kurnaköy and Akyazı stations were completed.

## Ades

Ades monitors meteorological conditions with integrated micro stations in the system. It combines measurements with freezing point estimation at the road level and marks the riskiest points on the map for the motorway authorities.





## APPLICATIONS FOR DRIVER SAFETY

### SMART PARKING PROJECT (At the process of ministry approval)

This is a project where parking areas at MSC's are equipped with sensors to monitor their momentary occupancies and drivers are directed based on this information.

The project, which is waiting for the approval of the Ministry of Transportation, will enable the system to detect the related vehicles license plate number and its vehicle class when entering the motorway service area and direct it to the previously identified parking area based on this data.

The vehicle directed to the parking area will be informed about the occupancy status of the related parking location. Thus a vehicle entering the service center will be directed to the exact parking spot. Project will allow the driver to easily reach the correct location without losing time if parking area is available.

The implementation area of the project is at two locations, Mermerciler region, known as Information Valley MSC and SOCAR North and South MSCs.

### The Northern Marmara Motorway introduced smart transportation systems at the Road2Tunnel Fair.

NMM participated Road2Tunnel - International Motorways, Bridges and Tunnels Fair, for the first time between 15-17 September 2022, which was organized for the fifth time in Izmir.

Having the world's largest four-lane tunnels and smart transportation systems, NMM's stand was welcomed warmly by the participants of the fair.

Road2Tunnel Fair was organized by İzmir Metropolitan Municipality. This year more than 150 firms, more than 5,000 qualified visitors, sector professionals from 35 countries, representatives from 10 different highway authorities and protocol participants attended the fair.

The fair which brings together infrastructure and superstructure projects of Turkey and participated by NMM for the first time is an important organization in terms of reflecting our country's position in the world.

TRANCITY - City Transportation Systems and Technologies Forum and 3<sup>rd</sup> Metro Railed Systems Forum were also realized during the Fair.

### NMM'S ACTIVITIES WON GENERAL APPROVAL OF ITS STAKEHOLDERS, CROWNED BY PRIZES

As the leader of Turkey's smart transportation systems area, NMM continues to put its signature to carry highway transportation to the future with advanced technology and engineering focused investments. As a result, NMM continues to receive the most prestigious awards of the sector with the technological infrastructure investments in driving safety area.

NMM accomplished to reach such a success level in motorway operation area where the whole world takes it as reference, not only Turkey. NMM uses new generation technologies never seen before, implements them with maximum benefit, continues its investments of smart transportation systems that include different inventions and innovations and enables drivers to travel more safely and comfortably.



### NMM ADES Road Icing Early Detection System project received the "Mobility Technology Award" at the "Path of the Mind in Transportation Awards".

Being granted the Path of the Mind in Transportation Award within the scope of SUMMITS'23 4<sup>th</sup> International Smart Transportation Systems Summit, NMM received the Mobility Technology Award with the "ADES Road Icing Early Detection System" project which will be implemented soon to be the first in Turkey.

Thanks to ADES, at locations where freezing and icing possibility increase due to negative weather conditions, risk is detected with special sensors placed under the road and drivers will be instantly informed. NMM will put its signature under a very significant service in terms of driving safety.





## APPLICATIONS FOR DRIVER SAFETY

### SMART TRANSPORTATION SYSTEM PROJECTS

Project	Current Status
Optical Clearance License Plate System	Completed
Incident Sensing and State of Emergency Guidance System	Completed
Turk Telekom 144 Core Fiber Optic Project	In process
Illuminated Fog Corridor (Floor-embedded Led Lightening R&D Project)	Completed
Image Processing and Analysis System	In contract phase
Road Icing Early Detection and Warning System (Ades)	PoC work done, in approval phase
Smart Parking Project	Waiting for approval of the Ministry of Transportation

#### OPTICAL CLEARANCE PLATE SYSTEM

There are 8 tunnels at the Northern Marmara Motorway. At the approach of these tunnels, Optical Clearance Systems are being used to prevent entry of vehicles with unsuitable heights to the tunnels. After the detection of the vehicle with high clearance, an automatic message is sent to the VMS Screen 200 m far. Within the scope of this project, which is the first in Turkey, studies continue to inform the vehicle with high clearance stating its license plate at the VMS screen.

As an integration to existing Optical Clearances, studies continue on Speed/ License Plate Integration to prevent traffic accidents and to provide driving safety on the motorway. With this integration, license plates of vehicles with high speed on the motorway will appear on the VMS screen and the drivers will be warned/informed.

#### INCIDENT SENSING AND GUIDANCE SYSTEM

Alerts are being delivered to the system automatically from the cameras along the motorway within the scope of the scenarios presented below. To prevent the negative incidents such as delay, omission, etc. of the transfer of alerts to the teams at field, the plan is to forward these alerts to the teams automatically via e-mails. Thus, scenarios detected by the cameras will be forwarded to the field teams automatically and action times will be reduced.

##### Scenarios

- Stopping Car Detection
- Pedestrian Detection
- Detection of Vehicle Going in Wrong Direction
- Foreign Object / Dropped Package Detection
- Slow Cruising Vehicle Detection
- Detection of No Crossing Vehicles at the Last 15 Minutes

#### IMAGE ANALYSIS SYSTEM

NMM's target is to integrate views transferred to 2 data centers on Asian and European sides via fiber infrastructure from day vision cameras and night vision cameras that will be placed in the future and data from sensors along the motorway with real-time operating artificial intelligence based visual identification, monitoring, warning and analysis system processing through machine learning, deep learning and big data mining techniques.

This turnkey project will be implemented with all development costs and infrastructural requirements such as hardware, license, service, etc.

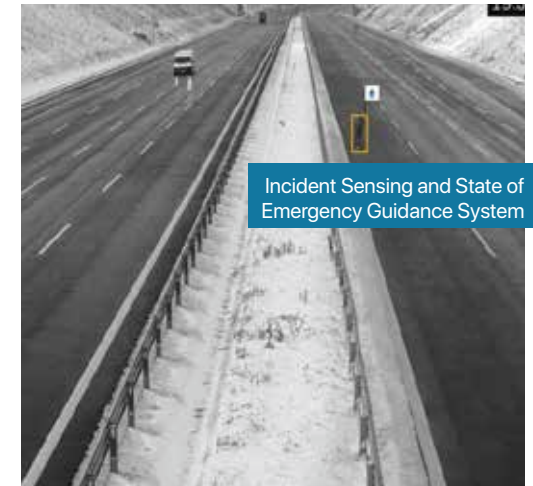
In this context, 7 prioritized scenario project lists were formed:

#### The following scenarios will be taken into consideration within the scope of the system

- Identification of Advance Payment Systems and Detection of Number of Transactions
- Road and Lane Identification
- Accident Sensing
- Sensing Foreign Objects Entering the Motorway
- Sensing People on the Motorway
- Detection of Open Dumps of Trucks
- Detection of Stopping Vehicles
- Detection of Roads Putting Drivers at Risk due to Snow
- Sensing Vehicles Driving at the Wrong Direction
- Sensing Driving Anomalies
- Sensing Rough Roads



Optical Clearance License Plate System



Incident Sensing and State of Emergency Guidance System



# OUR PEOPLE FOCUS

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## OUR PEOPLE FOCUS

**OUR HUMAN RESOURCES IS THE ARCHITECT OF OUR QUALIFIED AND SAFE SERVICES.**

**689 employees**

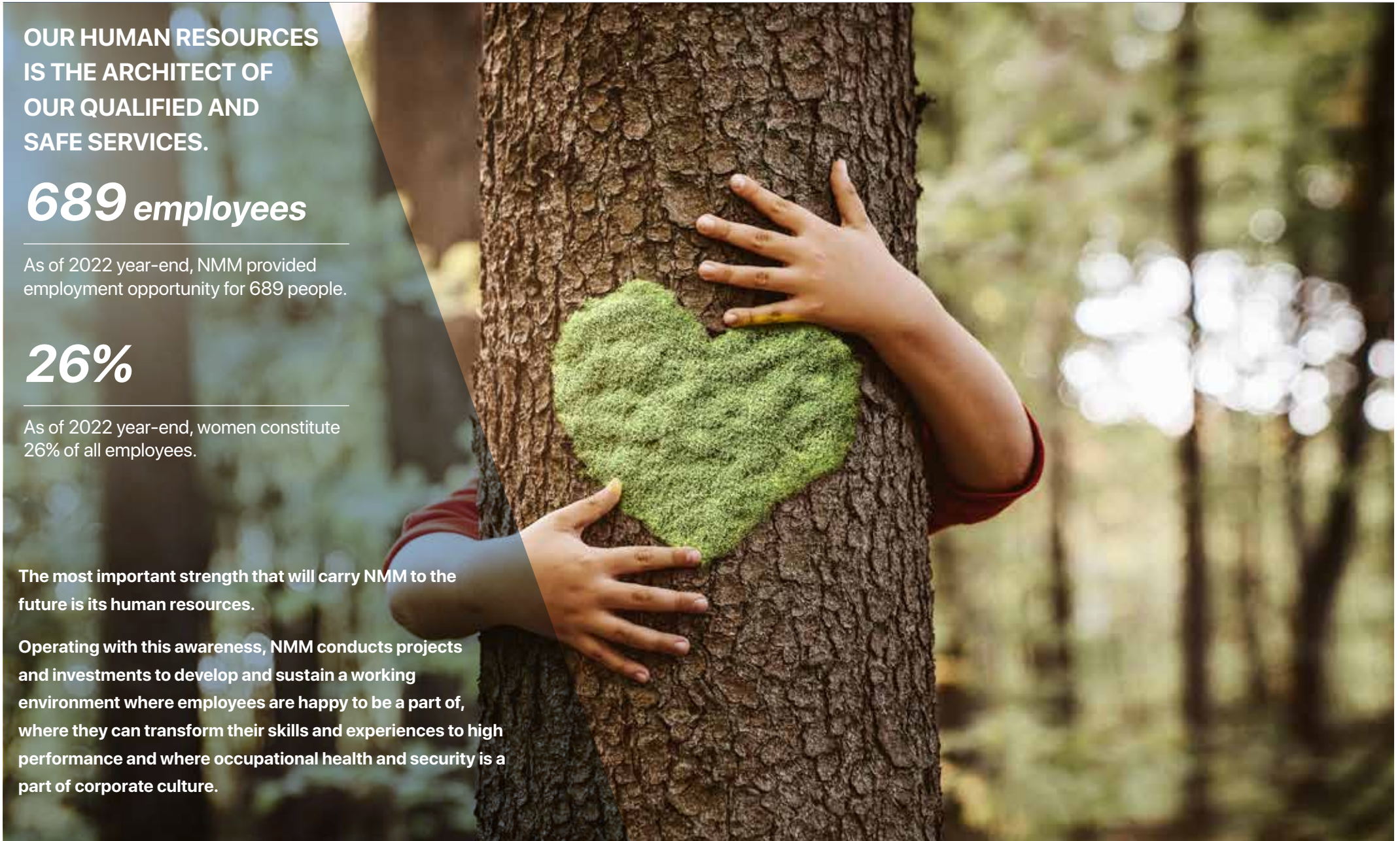
As of 2022 year-end, NMM provided employment opportunity for 689 people.

**26%**

As of 2022 year-end, women constitute 26% of all employees.

**The most important strength that will carry NMM to the future is its human resources.**

**Operating with this awareness, NMM conducts projects and investments to develop and sustain a working environment where employees are happy to be a part of, where they can transform their skills and experiences to high performance and where occupational health and security is a part of corporate culture.**





## OUR PEOPLE FOCUS

In the area of human resources, NMM aims to establish a qualified people structure which is highly motivated, which protects and increases organization's image, brings out innovative activities, cares about internal and external customer satisfaction and sees its job as part of the whole. The Company's priority focus based on this goal is reflected at the 'right people for the right job' approach.

For NMM, the first and foremost condition to have a working climate with personnel equipped with the highest competencies is to hire people that will demonstrate the best performance.

Another priority of NMM is employees' internalization of occupational health and safety and environmental awareness.

NMM encourages the execution of business and service cycle to be under the guidance of ethical values and ethical behavior, in accordance with efficiency and profitability principles and loyalty of employees to the Company. These are the building stones of NMM's corporate culture.

NMM Human Resources Department is the employees' road companion in all processes and at the same time, it is a strategic business partner which is a reference point for the organization's management.

Establishing a sustainable human resources structure is also significant for financial cost management. Since NMM is a service firm, human resources structure is one of the most important financial cost.

NMM's target for the following period is to design its human resources policy internalizing the following values and announce this to its stakeholders.

### **NMM human resources strategic objective**

To reach its targets, NMM prioritizes operational efficiency; defines the work force need of the organization based on processes, taking existing and seasonal effects into consideration. NMM cares about developing quality rather than quantity by retaining talent.



- To be Strategic
- To know External and Internal Factors
- To be Fair
- To be Sustainable
- To be Measurable
- To be Open and Clear
- To be Objective



## NMM EMPLOYMENT DATA

NMM offers a fair work environment which oversees employee rights, invests in talents, providing equal opportunity to all employees under the light of human resources strategies.

NMM's total number of employees as of 2022 year-end is 689. Number of women employees is 178 and rate of women employees is 26%.



### Talent Management: Investing in employees' professional development and training

NMM cares about its employees' professional development.

The organization provides trainings to increase the competences and skills of those employees with high development potential, who are experts in their areas and put forward new initiatives which the Company makes use of their skills and experiences. These trainings also serves the purpose of preparing them for higher positions.

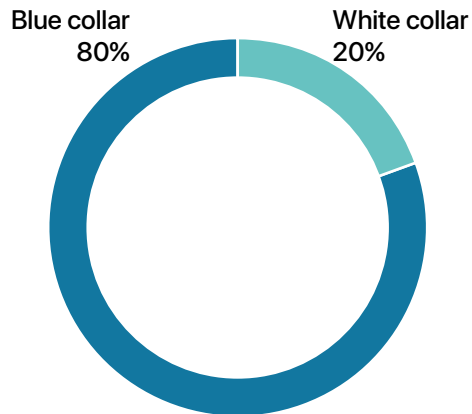
Employees hired are prepared for the future with different trainings and development programs to support their professional, managerial and personal development.

Professional and personal development programs are prepared to keep employees' motivation high. With uniquely designed trainings by Human Resources Management, an agile, competent and result-oriented human resources is established by increasing employees' know-how and skills.

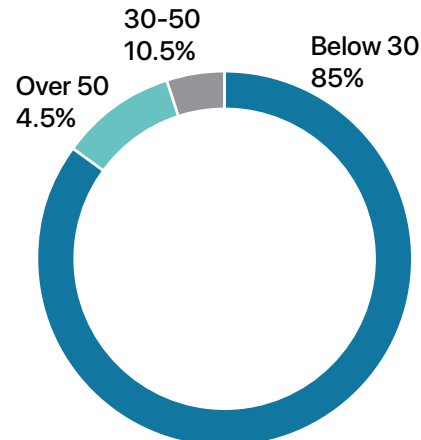
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NMM Academy is expected to be launched in 2024 and to bring a whole new dimension to trainings offered by the organizations.

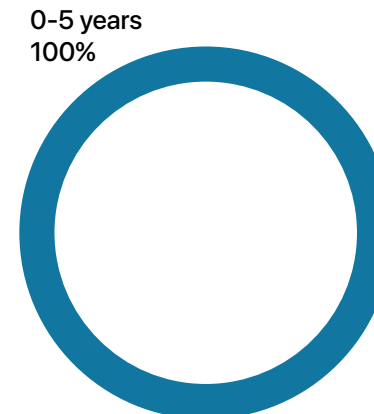
### Workforce by Category (%)



### Workforce by Age Group (%)



### Number of employees by seniority (%)







## NMM EMPLOYMENT DATA

NMM cares about its employees' professional development.

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Training programs	2021		2022	
	Training Hours	Number of Participants	Training Hours	Number of Participants
Basic First Aid Trainings	16	59	16	21
Basket Crane Operation Training	72	20		
Ekat	30	4	30	6
SRC4	28	41		
SRC5	28	7		
Psychotechnics	1	74		
Steel Welder	21	3		
Commercial Drone - İHA			9	5
Project Financing			12	9
Working at Heights- Train the Trainer	8	4		
Construction Project Management	12	1		
ISO 9001-14001-45001 IMS Standards and Internal Auditor Training	12	17		
ISO 39001 Road Traffic Safety Requirements Training	6	42		
ISO 39001 Road Traffic Safety Management Systems Information Training			14	19
ISO 39001 Road Traffic Safety Management Systems Internal Inspector Training			12	17

Training Programs	2021		2022	
	Training Hours	Number of Participants	Training Hours	Number of Participants
Modeling in Project Financing Training - Medium-Advanced Level			8	4
ISO 9001 Quality Management System Requirements Training			6	1
ISO 9001 Quality Management System Application Training			6	1
ISO 14001 Environmental Management System Basic Training			6	1
ISO 14001 Environmental Management System Internal Inspector Training			12	1
ISO 45001 Occupational Health and Safety Management System Requirements Training			6	1
ISO 45001 Occupational Health and Safety Management System Internal Inspector Training			12	1
Business Responsibility at High Voltage Terminals Training			24	2
ISO 27001 ISMS Basics Training			12	32
ISO 27001 ISMS Internal Auditor Training			12	20
Struggling Snow Training	60	54	60	16
Safe Traffic Management at Motorway Works Traffic Management Training			16	46
Traffic Accident Root Cause Analysis Training			8	18



## NMM EMPLOYMENT DATA

### Cycle completed with other trainings

In 2022, 'Ethics and Ethical Values' topic was added to our Orientation Trainings and information is provided at employees' new hire procedures.

Activities were conducted in 2022 within the scope of having employees with special status to work life to work with individuals with autism. In this context, 3 white-collared individuals with autism were hired at the Northern Marmara Motorway Project. Awareness was raised among all employees within the scope of this project and related trainings will continue on a regular basis.

In 2022, waste management and environmental awareness training was organized with the participation of 190 employees working at Garipçe Main Control Center, Maintenance Operation Centers (Adapazarı, Demirciler, Yassiören), Toll Booths and TİM.

### Social diversity and equality are essential criteria

In addition to having an important role in sustainable development, NMM considers social diversity and equality as a competitive advantage in human resources area. Respecting inequalities, the organization takes all its actions in human resources applications based on social diversity and equality.

Within the scope of selection and hiring, NMM hires competent people in line with its vision and mission and never tolerates discrimination based on religion, language, race, gender and cultural preferences while selecting candidates.

In terms of NMM's Remuneration policy, men and women are paid based on their performances with equal pay for equal work approach. In case of an opposite incident, all incidents are reviewed within the framework of Human Resources Policy and Business Ethics Rules and correcting actions are taken. During the reporting period, no incidents of this type were observed.

### Exit review analysis

Exit review analysis is an important part of NMM's human resources strategy in assessing functions requiring attention.

Reducing the reasons why employees leave or decreasing its rate will not only increase motivation and loyalty within the organization but also contribute in building a permanent corporate culture.

Each exit process is reviewed from the perspective of employee, manager and human resources; and the reason for leave is processed within human resources functions to take an action plan.

All exits at NMM in 2022 were reviewed.

Between 1 January and 31 December, 215 exits were realized, 115 of these had.



Total number of employees which received training:

Garipçe MCC	<b>85 person</b>	Yassiören MOC	<b>26 person</b>
Adapazarı MOC	<b>33 person</b>	Toll Booths	<b>15 person</b>
Demirciler MOC	<b>31 person</b>	Total	<b>190 person</b>



“ MEN AND WOMEN ARE PAID BASED ON THEIR PERFORMANCE WITH EQUAL PAY FOR EQUAL WORK APPROACH. ”



## NMM EMPLOYMENT DATA

NMM'S TARGET IS TO CONDUCT  
WORK LOYALTY ANALYSIS IN 2023.

Number of Hires by Age	Unit	2020		2021		2022	
		Female	Male	Female	Male	Female	Male
under 30	Person	50	150	60	130	60	125
30-50 years old	Person	10	15	10	15	10	15
over 50 years old	Person	10	15	10	15	10	15
<b>Number of newly hired employees during the year</b>	Person	70	180	80	160	80	155
Number of Hires by Executive Level	Unit	2020		2021		2022	
		Female	Male	Female	Male	Female	Male
First level	Person	3	10	4	15	4	15
Mid-level	Person	2	8	3	15	4	10
Senior	Person	2	6	4	8	3	5
<b>Number of newly hired employees during the year</b>	Person	7	24	11	38	11	30
Number of Employees by Years	Unit	2020		2021		2022	
		Female	Male	Female	Male	Female	Male
0-5 years	Person	130	392	168	525	178	511
<b>Total number of employees</b>	Person	522		693		689	





## NMM EMPLOYMENT DATA

AMONG NMM'S OTHER SIGNIFICANT PROJECTS IN HUMAN RESOURCES AREA ARE TALENT MANAGEMENT THAT WILL BE IMPLEMENTED IN 2023-2024 AND CAREER MAPPING PLANNED FOR 2024.

Subcontracted Worker	Unit	2020		2021		2022	
		Female	Male	Female	Male	Female	Male
Number of subcontracted employees by gender	Person	600	5,857	113	1,300	7	204
	Unit	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
Number of subcontracted employees by job tenure	Person	6,457		1,413		211	

Maternity/Parental Leave	Unit	2020		2021		2022	
		Female	Male	Female	Male	Female	Male
Number of employees on maternity/paternity leave	Person	2	7	2	9	1	14
Number of employees returning to work after maternity/paternity leave	Person	2	7	2	9	1	14





## OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT



“

AMONG THE MOST MATERIAL AREAS FOR NMM IS CONTINUOUS DEVELOPMENT OF OCCUPATIONAL HEALTH AND SAFETY AND PROVIDING FOR EMPLOYEES' WELLBEING AND HAPPINESS. BASED ON THIS COMMITMENT, SUSTAINABILITY OF A WORKING ENVIRONMENT PROVIDING OPPORTUNITY FOR MODERN OHS APPLICATIONS IS A FOUNDATIONAL GOAL ADOPTED BY NMM.

”

## ISO 45001

NMM employees and work places are completely within the scope of ISO 45001.

**A HEALTHY AND SAFE WORK ENVIRONMENT IS THE COMMITMENT OF NMM TO EACH EMPLOYEE.**



NMM commits to provide a healthy and safe work environment for its employees, contractors, visitors and customers.

NMM encourages and expects its employees to implement actions which will keep themselves and their colleagues healthy and safe.



## OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT



### OHS trainings

At NMM, OHS training activities are held periodically to keep OHS culture current and strong.

All new hires and employees required to take refresher trainings at NMM Main Control Center and maintenance operation administrations are delivered occupational health and safety trainings and recorded.

In 2022, 12,360 man-hour OHS trainings were delivered to employees and 1,100 man-hour trainings were delivered to contractor employees.

### Toolbox trainings

Toolbox Talks-TBT or Toolbox Meetings are short trainings organized by NMM maintenance operation offices focused on specific operation and attended by related employees.

These trainings, where current risks are discussed, are organized closer to clock-in time and aim to target high risk perception.

### OHS measures in struggle with snow and ice

Accidents occurred in previous years, near-miss incidents and potential risks due to struggling with snow and ice are assessed and meetings are held with both sub-contractors and NMM employees to share information.

Proper and timely implementation of measures is significant in struggling with snow and ice and document follow-up is continuous. Additionally, field tracking of teams during day and night are performed without interruption.

### Work accidents root cause analysis strategy

The analysis process of work accidents occurred in 2019, 2020 and 2021 were deepened more with trainings received and experiences. Each work accident was recorded in the report format prepared by the OHS department within the unit and delivered to the related department.

With the new step taken in 2022, Root Cause Analysis Strategy was developed further with the objective of presenting even the smallest causes.

# 12.360 man-hours

OHS trainings delivered to NMM employees in 2022



**Güvenli Bir Trafik için Kurallara Uyalım!**

- Araç kullanırken hız sınırlarına uyalım.
- Yalnız "ağır hız" değil, hız limitlerinin biraz üzerindeki hızlarda da acı sonuçlar doğurabilir.
- Ölüme sonuçları her 3 trafik kazasından 1'i "AŞIRI HIZ" dan kaynaklanmaktadır.
- Hızınız; yağ, hava, yol ve trafik durumu ile aracınızın performansı ve lastiklerinizin durumuna göre ayarlayınız.
- Gecesi veya görüş mesafesinin düşük olduğu durumlarda hızınızı düşürünüz.

10.4 m mesafeyi kurtar

50 km/s

10.4 m mesafeyi kurtar

20.8 m aracı durma mesafesi

20.8 m mesafeyi kurtar

100 km/s

40.6 m mesafeyi kurtar

80.2 m aracı durma mesafesi

**Trafik kurallarına uyalım, sevdiğimizimize kavuşalım.**

- Araç içerisinde ön ve arka koltukta emniyet kemeri kullanın.
- Emniyet kemeri kaza anında %75'e varan oranda hayat kurtarır.
- Hava yastıkları sadece ve sadece emniyet kemeri ile birlikte kullanılacaklarında yarar sağlayan ekipmanlardır.

Aracınızın yol ile temasını tek noktaya odakladık.

Doğru lastik; mevsimlere uygun lastikler. Lastikler; farklı hava, yol ve kullanım koşullarına göre belirlenir.





## OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

### NMM OHS Rules

At NMM, OHS Board meetings are held in monthly periods.

Within the reporting period, 12 OHS Board meetings were held, action plans were drawn for the topics being followed.

### 45001, 14001 and 9001 certifications were completed.

As of April 2022, NMM obtained ISO 45001, 14001 and 9001 Quality Management certificates. The first two of these certificates Occupational Health and Safety Management System (45001) and Environmental Management system (14001) were received thanks to compliance of our OHS - Environment Department to quality system.

### Hazardous material operating license for 3 fuel tanks

On 28 March 2023, Hazardous Material Operating Licenses were obtained from the Ministry of Transportation's system under the names of two separate entities' registry numbers, NMM Anadolu Otoyol İşletmesi A.Ş. and Avrupa

Otoyolu Yatırım İşletmesi A.Ş. at Garipçe Center, for fuel stations and tanks at 3 Maintenance Operation Administrations.

### Company vehicles speed limit control application

Number of traffic accidents increase day by day in Turkey. With the decision taken against violation of rules, vehicles of NMM are required to comply with the speed limit control application and set an example.

Hence, besides providing the safety of citizens using the motorway with the operator responsibility, NMM achieved to keep its end up without exception. With this application, absolute compliance to rules and increase in employees' perception of safety were supported.

### Receiving near-miss events, complaints and suggestions through QR code

With this system developed and implemented by the NMM software team, employees can share their identity information and post near-miss, complaints and suggestions by using their telephones.

### Machinery and equipment periodic inspection

Periodic inspections of the vehicles used in operations are performed every 6 months by the authorized institutions under the follow-up of OHS-E Department. Periodic inspection of electrical fixtures are performed by authorized institutions once a year.

Moreover, periodic control of electrical boards are done with thermal cameras.

### Sub-contractor management

There is sub-contractor OHS management at NMM designed under the light of legal legislation and best practices. Permission to work is given after certain processes are completed.

### Working in contact with energy

During the reporting period, in addition to Operating Responsibility Authorization at High Current Facilities and Electrical High Current Facilities certifications, activities to obtain Working Permissions under High Current were also conducted. In this context, 4 employees were entitled to receive this certificate.

### NMM INFIRMARIES

There are 4 infirmaries within NMM, 3 at maintenance operations and done in Garipçe Central Office.

In 2022, 19 employees diagnosed with Covid and related contacted people were followed up.



# 12

In 2022, 12 OHS Board meetings were held at NMM.



## OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

### KEY OHS INDICATORS

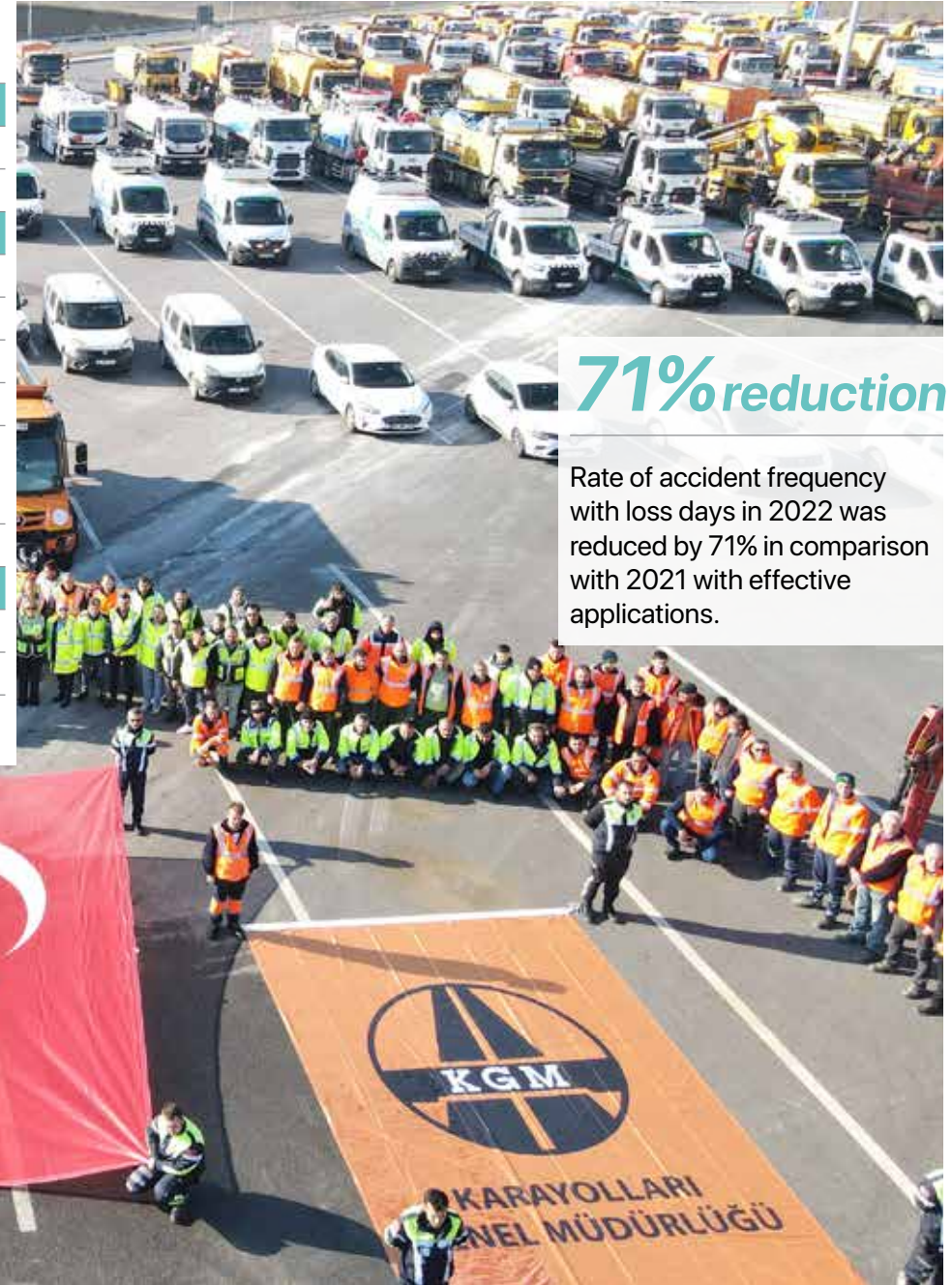
Working Hours	2019	2020	2021	2022
Total working hours	918,000	1,409,400	1,873,800	1,857,600

OHS (Direct employment)	Unit	2019	2020	2021	2022
Number of Lost Time Accidents (A)		0	3	9	3
Number of Fatal Cases (B)		1	0	1	0
Number of Occupational Diseases		0	0	0	0
Absence due to Accident**		7,500	9	7,855	87
Lost Time Accident Frequency Rate (US OSHA based calculation, with 1 million)*		1.09	2.13	5.34	1.61

OHS Trainings	Unit	2019	2020	2021	2022
To company employees		8,000	10,600	12,104	12,360
To subcontracted employees		400	2,200	2,500	1,100

\*Lost time frequency rate = (A+B) \*1 million/working hour

\*\* Fatal accidents are included



**71% reduction**

Rate of accident frequency with loss days in 2022 was reduced by 71% in comparison with 2021 with effective applications.





# OUR SOCIAL CONTRIBUTION

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## TRAINING

At the 10<sup>th</sup> Civiİstanbul'22 Engineering and Architecture Conferences organized by Yıldız Technical University Construction Club with the sponsorship of Northern Marmara Motorway, professional experiences in different areas were shared with university students at panels participated by international firms and industry professionals in construction, architecture, building technologies, building materials, urbanization and smart transportation.

NMM had the opportunity to share its corporate experience in smart transportation systems and motorway management, its smart transportation projects and sustainable business models in motorway management with university students.

At the Smart Transportation Systems session within the conference, high technologies used in smart transportation systems, driver-friendly innovative solutions and potential new generation artificial intelligence and fiber optic laser based projects were discussed with students.

During the three-day event, students experienced the longest tunnel flight simulation of the world at Northern Marmara Motorway stand with visual reality headsets and received different prizes.

NMM regularly offers first internship and then job opportunities to university students with its target of contribution to students in numerous specific areas such as motorway management, smart transportation systems, road construction and information technologies.

NMM hosts universities at its Headquarters for technical visits and introduce them with their operational processes and new generation transportation systems.



## Sharing

NMM shares its corporate experiences about smart transportation systems and motorway management with its stakeholders.

## Universities

NMM hosts universities at its Headquarters for technical visits and introduce them with their operational processes and new generation transportation systems.





## HEALTH



## IN COLLABORATION

## WITH TURKEY'S FIRST

## AUTISM FOUNDATION,

## TODEV, NMM AIMED TO

## BRING INDIVIDUALS WITH

## AUTISM INTO BUSINESS

## LIFE AND LAUNCHED AN

## EMPLOYMENT PROJECT

## WITH ITS MISSION

## SUMMARIZED IN THE

## MOTTO, "WITH AUTISM

## NO DIFFERENCES, JUST

## WORK".



**"No Differences, Just Love" exhibition organized by TODEV with the photographs taken by children and youngsters with autism brought together supporters of autism, including NMM.**

NMM continues to support projects contributing to create awareness for individuals with autism and education of special children.

Within the scope of "No Differences, Just Love" project conducted by Turkish Foundation of Support and Education (TODEV), leading names in sports, art, media and business life posed for the cameras.

The project organized in Museum Gazhane between 24-26 May 2022 brought autism friendly supporters together. Chairman of the Board of TODEV Arzu Gökçe presented a plaque of appreciation to NMM CEO Aynur Uluğtekin, for her support for special children, who participated the exhibition with her photograph taken by a young person with autism.

Prioritizing children and young people in the social responsibility projects supported, NMM will continue to create awareness about autism to open new doors for individuals with autism in every area of life and to support children with special needs.

**NMM and TODEV put their signature on a first in employment of young people with autism.**

NMM and TODEV launched a special employment project to bring individuals with autism to business life. Within the scope of "No Differences with Autism, Just Love" project, three white-collared personnel with autism were hired at the same time by NMM, which is a first in Turkey.

NMM aims to be a role model in business world with this success story which was highly appreciated.

These three employees with autism who were hired as assistant specialists within the scope of the project, that anticipates employment of individuals older than 18 years of age in business life without any differentiation or privileges, started to climb career steps in different professional areas.

These three employees with autism completed their orientation processes in completely different professions, information, software, quality control systems and landscaping and started working as permanent staff. With These individuals became examples for people with special needs and their families with their successful adaptation process in both the work environment and social life.

These three NMM employees drew attention to employment of people with autism by sharing their work experiences and what they can change when the opportunity is provided through a special video prepared for the World Autism Awareness Day at 2 April where they sincerely talked about the new period in their lives.

## With Autism No Differences, Just Work

At NMM, three white-collared personnel with autism were hired at the same time for the first time in Turkey.





## HEALTH

“  
NMM CONTRIBUTED TO  
AWARENESS ACTIVITIES  
FOR BREAST CANCER, THE  
MOST IMPORTANT HEALTH  
PROBLEM IN WOMEN,  
CONDUCTED IN OCTOBER  
IN TURKEY AND IN THE  
WORLD.”

## Breast cancer awareness training from NMM

NMM added breast cancer awareness training to its existing special projects and events in social subjects.

NMM contributed to awareness activities for breast cancer, the most important health problem in women, conducted in October in Turkey and in the world. With more than 60% women employees, NMM organized a special seminar to create awareness about breast cancer.

Conducting its awareness activities to say “Stop to Breast Cancer” throughout the month, NMM delivered a seminar for all its employees at its main control center with the participation of Dr. Sibel Aydın Aksu, Haydarpaşa Numune Hospital Radio diagnostic Specialist. At the seminar which received great attention from women employees, Dr. Aksu shared information about subjects such as ‘What is breast cancer? How frequent it is in the world and in our country? How is it detected? What are the treatment options? Why early diagnostics is important?’

During the month of October, NMM also shared informative messages to draw attention to breast cancer at certain locations along the 415 km route covering Europe and Anatolia to create awareness among drivers.

## “Stop to Breast Cancer”

## Awareness training





## ENVIRONMENT



**NMM VE DİLOVASI  
MUNICIPALITY  
COLLABORATED TO  
LAUNCH AN ANIMAL  
REHABILITATION CENTER  
TO MAKE ANIMALS LIVE  
IN BETTER CONDITIONS,  
TO REHABILITATE  
INJURED OR UNHEALTHY  
STRAY ANIMALS AND  
MAKE THEM RETURN TO  
NORMAL LIFE.**



### Stray Animal Care Facility and Rehabilitation Center

Stray Animal Care Facility and Rehabilitation Center, build by NMM and donated to Dilovası Municipality was opened with collaboration of these two organizations.

There are two animal transfer vehicles owned by NMM. With these vehicles, stray animals found on the motorway route are picked up and transferred to municipalities' temporary care facilities. At these care facilities, animals which are not sterilized are being sterilized, required treatments are applied and care for injured or sick animals are provided. These animals which are treated by the related municipalities are transferred to their natural areas which are safe and close to where they were picked up.

Through the collaboration ecosystem with the goal of improving animals' living conditions, the activities are performed with municipalities and animal lovers to provide for food and water needs at the feeding areas.

Stray Animal Care Facility and Rehabilitation Center's official procedures are completed and it became an organization to assume responsibility to perform sterilization operations, treatment and care processes.





## SOCIAL EVENTS



### Headlines from NMM's other social activities

- Every year at certain periods, NMM organizes volleyball and football tournaments to support its employees' so they can have continuous health and social activities. These sport opportunities include both women and men and contributes to increase motivation.
- NMM provides all its employees to have activities at 'Point Sports Center' located at Garipçe Main Control Center. In this context, another health and social project was launched; two days a week at certain time periods, all male and female employees have the opportunity to attend Pilates classes with a professional Pilates instructor.
- Point Cafe, which offers the opportunity for individual or group activities of employees during rest periods and after-work hours, had the opening on 7 February 2022 with the participation of employees. The cafe was a social project with the objective of increasing employees' motivation with delicious snacks and drinks.
- Within the scope of landscaping of Point Cafe at Garipçe AKM campus, more than 100 plant types were used at the Olive Garden, Rose Garden and social activity/rest areas. Within the scope of the Main Control Center landscaping, at the Central Garden and Dining Hall levels, slopes are planned to be used as social areas, hard floor materials were

used and landscaping was done including these areas in visual and functional effects of the landscape. Medicinal aromatic herb selections and attractive seasonal effects were considered (flowers, leaf colors, textural changes, seasonal transitions).

- At the internal courtyard arrangement of Main Control Center, geometric arrangements were made. This layout, increasing the effectiveness of use, created a social area where employees can spend their break times.
- "Northern Marmara Motorway Running Team" participated the Istanbul Marathon, held on 6 November 2022 to support AÇEV and started off with the awareness of creating education opportunity for more children at the rate of participation.
- Within the scope of "Breath for the Future" campaign conducted by the Ministry of Agriculture and Forestry with the direction of Republic of Turkey Presidency, NMM contributes with 1 Sapling for the Future approach.
- During this process started in 2019, planting is realized with the contribution of employees, non-profit organizations, municipalities, Directorate of Forestry and other local and administrative organizations. Each year thousands of saplings met with earth and we provided Breath for our Future!





# OUR CONTRIBUTION TO ENVIRONMENT

56 ENVIRONMENT MANAGEMENT FROM PROJECT PHASE TO TODAY

59 LANDSCAPING ACTIVITIES

62 CONTRIBUTION TO BIODIVERSITY



## OUR CONTRIBUTION TO ENVIRONMENT

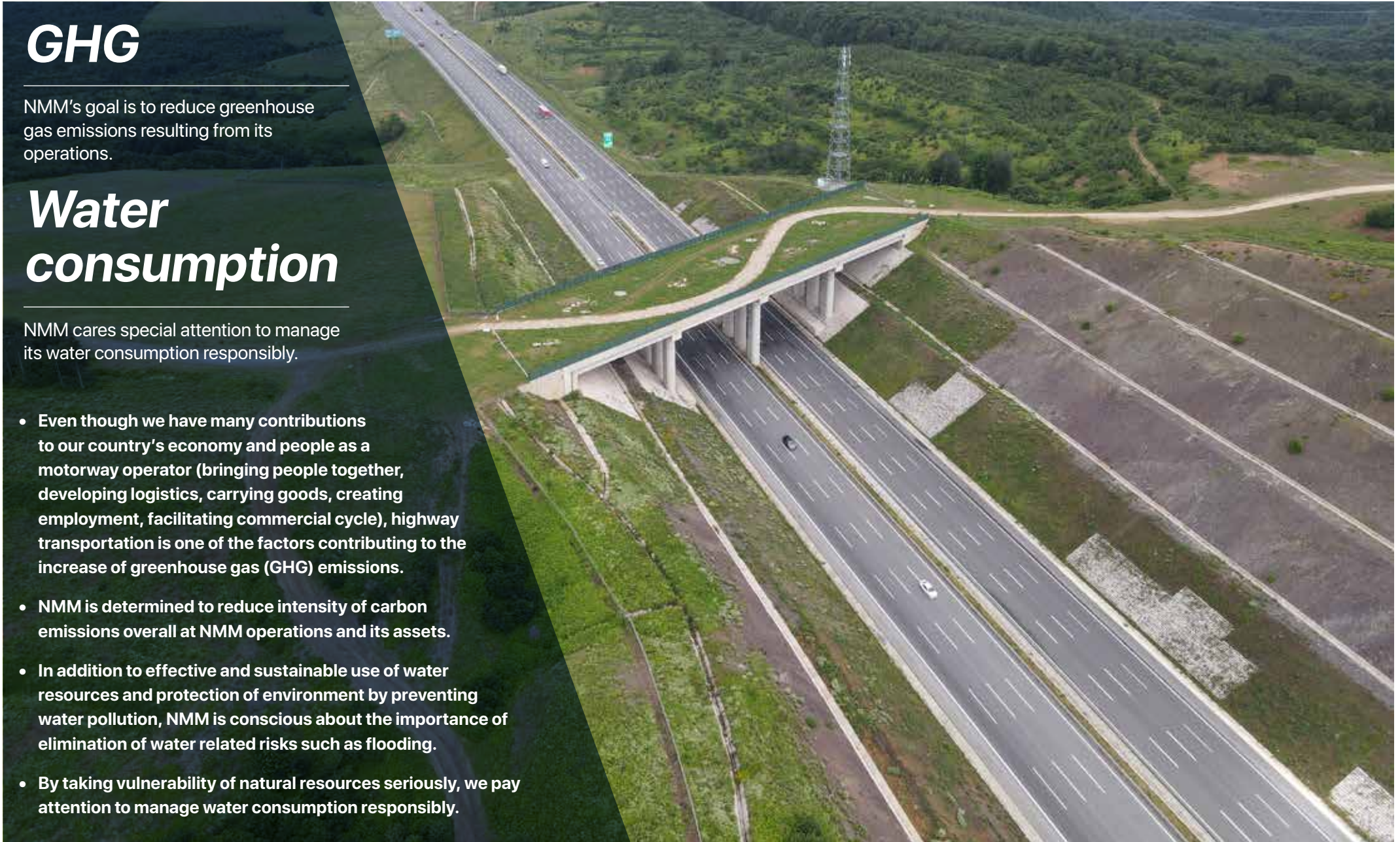
### GHG

NMM's goal is to reduce greenhouse gas emissions resulting from its operations.

### Water consumption

NMM cares special attention to manage its water consumption responsibly.

- Even though we have many contributions to our country's economy and people as a motorway operator (bringing people together, developing logistics, carrying goods, creating employment, facilitating commercial cycle), highway transportation is one of the factors contributing to the increase of greenhouse gas (GHG) emissions.
- NMM is determined to reduce intensity of carbon emissions overall at NMM operations and its assets.
- In addition to effective and sustainable use of water resources and protection of environment by preventing water pollution, NMM is conscious about the importance of elimination of water related risks such as flooding.
- By taking vulnerability of natural resources seriously, we pay attention to manage water consumption responsibly.







## ENVIRONMENT MANAGEMENT FROM PROJECT PHASE TO TODAY

### Headlines within the scope of environmental management activities of NMM at project phase

- ▶ In 2017, detailed field studies were performed about the environmental and social components of the project (weather, water, soil, noise and vibration, ecology, socio-economics, landscaping).
- ▶ Potential effects expected during the construction and operation phase of the project were defined.
- ▶ Measures to minimize these effects were identified.

During the preparation of the Environmental and Social Impact Assessment report, after scope definition, activities such as review of alternatives, stakeholder identification (focusing on directly impacted people) and participation, collection of main environmental and social data through field work and deskwork, impact definition, relief of impacts by forecasting and

analyzing or establishing measures and actions for management, assessment of importance of impacts and residual impacts and other significant processes were all conducted in accordance with the legislation and regulations effective in our country and requirements of Ecuador Principles and IFC Sustainability Framework.

Output of all processes were included in the Environmental and Social Impact Assessment report prepared for the Northern Marmara Motorway Project, European and Anatolian sides.

Furthermore, Mott MacDonald audits conducted in quarterly periods, 4 times a year, during the construction phase, continue with the participation of related creditor bank representatives and Mott MacDonald authorities once a year as 2-day field visits. Within the scope of the audits, data flow and information about the audits are also transferred in electronic format.



“

**AT THE PROJECT PHASE OF NMM REQUIREMENTS OF ECUADOR PRINCIPLES AND IFC SUSTAINABILITY FRAMEWORK WERE CONSIDERED.**

”



## ENVIRONMENT MANAGEMENT FROM PROJECT PHASE TO TODAY

The most significant project of NMM contributing to reduction of carbon emission is the change of sodium steam lighting fixtures at MSC and toll booth areas with LED fixtures. Thanks to this project, 4,425,036.26 kWh of savings were realized in annual electrical energy consumption.

### ANNUAL ELECTRIC ENERGY CONSUMPTION OF SODIUM STEAM FIXTURES AT MSC AND TOLL BOOTH AREAS

CONSUMPTION CALCULATION FOR 1000 W SODIUM STEAM FIXTURES					
Line No	Location/ KM Information	Number of Fixtures	Total Fixture Power (kW)	Daily Average Consumption (kWh)	Annual Consumption (kWh)
1	EUROPE	398	457.70	5,217.78	1,904,489.70
2	ANATOLIA	723	831.45	9,478.53	3,459,663.45
	TOTAL	1121	1,289.15	14,696.31	5,364,153.15
CONSUMPTION CALCULATION FOR 250 W SODIUM STEAM FIXTURES					
Line No	Location/ KM Information	Number of Fixtures	Total Fixture Power (kW)	Daily Average Consumption (kWh)	Annual Consumption (kWh)
1	EUROPE	66	18.15	206.91	75,522.15
2	ANATOLIA	121	33.28	379.34	138,457.28
	TOTAL	187	51.43	586.25	213,979.43
<b>ANNUAL TOTAL CONSUMPTION FOR SODIUM STEAM FIXTURES (kWh)</b>					<b>5,578,132.58</b>

### ANNUAL ELECTRIC ENERGY CONSUMPTION OF LED FIXTURES AT MSC AND TOLL BOOTH AREAS

CONSUMPTION CALCULATION FOR 295 W LED FIXTURE					
Line No	Location/ KM Information	Number of Fixtures	Total Fixture Power (kW)	Daily Average Consumption (kWh)	Annual Consumption (kWh)
1	EUROPE	306	90.27	1,029.08	375,613.47
2	ANATOLIA	570	168.15	1,916.91	699,672.15
	TOTAL	876	258.42	2,945.99	1,075,285.62
CONSUMPTION CALCULATION FOR 100 W LED FIXTURE					
Line No	Location/ KM Information	Number of Fixtures	Total Fixture Power (kW)	Daily Average Consumption (kWh)	Annual Consumption (kWh)
1	EUROPE	66	6.60	75.24	27,462.60
2	ANATOLIA	121	12.10	137.94	50,348.10
	TOTAL	187	18.70	213.18	77,810.70
<b>ANNUAL TOTAL CONSUMPTION LED FIXTURES (kWh)</b>					<b>1,153,096.32</b>

**ANNUAL TOTAL SAVINGS (kWh)**

**4,425,036.26**

Lightings at the motorway route work with astronomic time clock. Astronomic time clocks were optimized based on their locations, thus unnecessary lighting was prevented when amount of light is sufficient.

At NMM, entrance and internal lighting of tunnels work automatically with grade control system. Accordingly, lighting increases or decreases based on the amount of daylight automatically and this contributes to optimization of energy consumption.



## ENVIRONMENT MANAGEMENT FROM PROJECT PHASE TO TODAY

### NMM TOTAL ELECTRIC AND WATER CONSUMPTION

	Unit	2020	2021	2022
Electric	KWh	15,269,514*	42,191,521	47,117,381

\*In 2020, number of active subscriptions was 15, now there are 32 electric subscriptions.

### NMM TOTAL WATER AND WASTE WATER DISCHARGE

Water and waste water	Unit	2021	2022
Total water consumption	m <sup>3</sup>	50,802	65,697
Ratio of recycled water to total water consumption	%	0	0
Total waste water discharge	m <sup>3</sup>	50,802	65,697

### NMM SCOPE 1 FUEL CONSUMPTION

Scope 1	Unit	2020	2021	2022
Diesel consumption	liter	917,504	1,736,746	1,749,056
Fuel (diesel) consumption - company vehicles	liter	651,494	1,301,200	1,590,689
Fuel (diesel) generator	liter	266,010	435,546	158,367





## LANDSCAPING ACTIVITIES

“  
**LANDSCAPING PROJECTS DO NOT BRING TOGETHER THE NATURE WHICH WENT THROUGH A DEFORMATION PROCESS DURING CONSTRUCTION AND THE ROAD'S TECHNICALLY CREATED FORM AND COMPOSITION; SOLUTIONS ARE DEVELOPED TAKING INTO CONSIDERATION THE ENVIRONMENTAL AND CLIMATE CONDITIONS.**  
 ”

Motorway projects need to support transportation services provided by the motorway with both technically and aesthetically safe, fast and environmentally sensitive solutions.

Landscaping projects do not bring together the nature which went through a deformation process during construction and the road's technically created form and composition; solutions are developed taking into consideration the environmental and climate conditions.

Cut and fill slopes created during the construction of the motorways and borrow pits used at the construction phase are reintroduced back to nature through botanical landscaping solutions.



**Planting on motorways is the most important planning initiative affecting the road and landscaping of the environment.**

As much as the route, parallelism, excavation, filling and road geometrical standards, forestation also plays an effective role in the speed of the project of the road.

The objective of motorway landscaping is regaining nature that is distorted by the road construction by a new layout selecting correct types of plants for the regional climate conditions and natural flora.

To fight against erosion, motorway slopes need to be stabilized so that the surroundings are protected from the negative effects such as dust, noise, exhaust gas.

Besides arrangements to allow vehicles to slow down safely in case they got out of the road, other important elements standing out for driving safely

are functional objectives such as obscuring the headlights, emphasizing tunnel and toll booth entrances, setting up snow screens and wind breaks based on climate conditions, signalization to inform about art buildings and junctions and taking unwanted objects out of view.

Moreover, arrangements are also made to enable motorway users travel with a perspective enriched in terms of aesthetics, not monotonous.

During the botanical landscaping activities of the Northern Marmara Motorway, besides the main objective which was the addition of the road to enter into the perspective as part of the nature and the reduction of the negative effects of the road to the environment, another goal was to use plants that continue keep their functions and do not require lots of maintenance in the following years.





## LANDSCAPING ACTIVITIES

Motorway planting technique has different characteristics than other applications used in and out of the cities. Accordingly, NMM took into consideration the followings when setting up the landscaping:

- Creating a plant cover on cut and fill slopes to stop erosion on the surface,
- Selecting plant types that can adapt to areas which are not qualified in terms of botanical soil,
- Planting in large groups to be visible due to speed of motorway traffic,
- Planting to establish a pyramidal shape to work as wind breaker at locations where the motorway is open to intense winds due to passing from cut slopes to fill slopes or vice versa,
- Covering unpleasant views with plant groups, setting up scenery perspectives (visual landscaping areas) at points where the scene is nice,

- Creating a chance to drivers to perceive motorway curves and junction points by using plants with different colors, dimensions and forms,
- Using plants with brittle branches at median strips and shoulders to make drivers slow down safely without hurting themselves if their vehicles get out of the road,
- Using the plants in harmony with the surrounding flora and design in landscaping to create a view to be perceived as if the motorway is an extension of the environment.

When the route passes through a dense forest area, lost forest texture is replaced by local types of trees and shrubs. Thus, at fill slopes more leafy and coniferous trees were used in large quantities by mixing them. However, at cut slopes, leafy and coniferous trees and partly shrubs were used in large groups and mixed.

In selection of plants, regional plant types are considered and at the same time, sturdy types are selected which are suitable with motorway conditions, which do not require much maintenance work and watering, which are fast growing and rooting so they can easily adapt.

Plant types suggested at the application projects and approved by the Directorate of Motorways

(KGM) turned out to be not suitable since they could not adapt after implementation and they were not sustainable when current climate conditions, global warming and motorway landscaping activities were concerned. This was noted at the annual dried plant reports.

After the executive management was informed about the problem and discussions between KGM and consulting firm's management, main factors such as climate conditions, soil structure, location, entrance areas, management buildings, carbon emission, fauna and traffic control were reconsidered and more attention was given to select plant types to create a sustainable green corridor.



“

WHEN THE ROUTE PASSES THROUGH A DENSE FOREST AREA, THE GOAL IS TO REPLACE LOST FOREST TEXTURE BY LOCAL TYPES OF TREES AND SHRUBS.

”



## LANDSCAPING ACTIVITIES

# Landscaping

Besides providing significant contribution to sustainable economy and qualified development, NMM adopts an important role in reduction of carbon emission. In this context, the most suitable plants that oversee ecological balance are selected carefully to reduce carbon emission. Also special landscaping is applied at residential areas, tunnel entrances and exits and operational areas along the motorway.

The Northern Marmara Motorway continues its planting activities which is compatible with the region’s ecosystem, that supports fauna and flora life with an approach indexed on reducing carbon emission.

### LANDSCAPING APPLICATION (European and Anatolian Field Progress)

	Before 2019	2019-2022	2023	Total
Zone 1	168,018	40,163	2,600	210,781
Zone 2	199,809	11,921	513	212,243
Zone 7	12,6123	46,267	0	58,890
Zone 4	123,629	9,309	13,243	146,181
Zone 5	329,365	75,519	897	406,781
Zone 6		47,884	3,103	50,987
Planting within the scope of the General Directorate of Forestry protocol*				3.926.823
<b>TOTAL</b>				<b>1,085,863</b>

\*Planting made within the scope of the protocol made between the General Directorate of Forestry and KMO.





## CONTRIBUTION TO BIODIVERSITY

### The Northern Marmara Motorway continues to plant saplings within the scope of Breath for the Future campaign.

Turkey's safest transportation project, the Northern Marmara Motorway (NMM) plants thousands of saplings on National Tree Planting Day within the scope of "Breath for the Future" campaign for a greener Turkey, started by the Directorate of Forestry and Ministry of Agriculture and Forestry.

Having realized the planting of 32,670 saplings so far in Istanbul and Sakarya, the Northern Marmara Motorway will continue to plant trees at pilot regions along the route in the following period.

### NMM hosts one of the two ecological bridges in Marmara region.

NMM ecological bridge is 131 meters long, 40 meters wide and 22 meters high. There are 5 legs, 2 at the sides and 3 in the middle.

The bridge is full of attractive plant types and 5 natural looking water holes for animals to provide their water needs. Maintenance and filling of these holes are performed by NMM's water tenders.

Both sides of the bridge are covered with natural looking grass fences to prevent passing animals see the motorway.

Animals crossing the bridge are monitored via 8 camera traps positioned to view the forest way, 4 on the bridge and 4 at the entry and exit of the bridge. The use and tracking of the bridge by the wild animals are also easily done through animals' feces.

During the studies of the ecological bridge, correspondence between Landscaping department and Kocaeli Regional Board of Cultural Values Management, Kocaeli Museum Management, Gebze Forestry Operation Management were conducted about the Archeological Protected Area and ecological bridge. Also landscaping project and maintenance activities were performed. At the same time, water holes were set up to be used by the wild life crossing the bridge while passing between biotopes and hiding areas were established using the stones taken out during construction.

### Three new sustainability-focused steps from the Northern Marmara Motorway

Within the scope of World Environmental Protection Week, the pioneer of smart transportation systems in Turkey, the Northern

Marmara Motorway gave start to three new projects within the context of new sustainability vision and updated environmental policies.

Focusing on environment and sustainability in all its business processes and corporate social responsibility areas, NMM took into consideration contribution to recycling, prevention of noise pollution and green applications together with these projects started on the World Environmental Protection Week.

Defining its new road map within the scope of sustainability, NMM was granted with the "Asia-Pacific Green Contract Badge" given by Asia Pacific Economic and Social Commission (ESCAP) within the United Nations (UN).



“

NMM ECOLOGICAL BRIDGE HAS A LENGTH OF 131 METERS, 40 METERS OF WIDTH AND 22 METERS OF HEIGHT.

”



## CONTRIBUTION TO BIODIVERSITY

### Income from recycled electronic waste will be a new hope for the education of individuals with autism.

NMM started the recycling of electronic waste project to be used for contribution to support and education of people with autism at 4 points. In collaboration with GCL Group for recycling of e-waste, the Northern Marmara Motorway will donate the income to TODEV and contribute to education and development of individuals with autism on a regular basis.

Electronic waste collected at NMM Main Control Center and 3 Maintenance Operations Offices will be recycled by GCL and will be reused by the sector. Thus, each recycled electronic waste will be a new hope in the education process of individuals with autism.

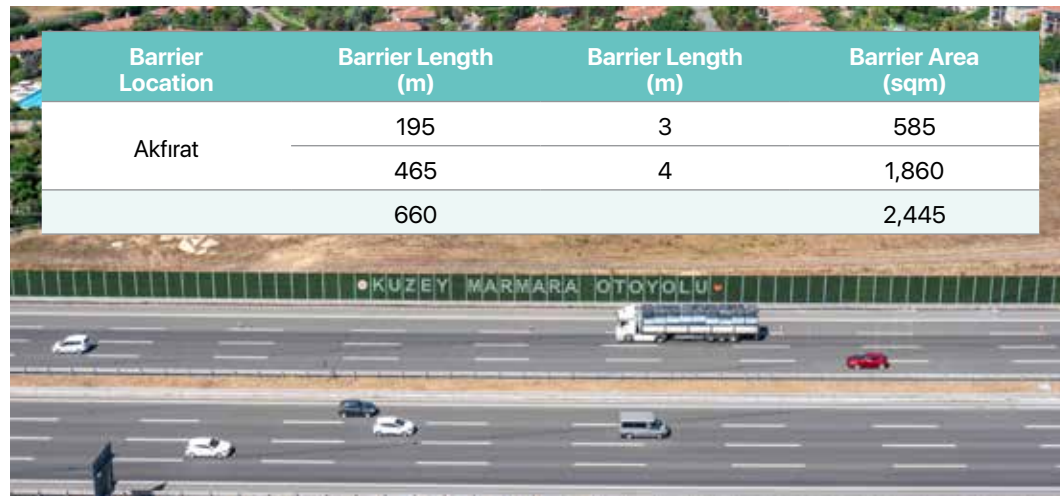
### NMM builds a barrier for sound pollution with new noise barriers produced using tires which completed their lives.

Hosting one of Turkey's first ecological bridges, NMM sets a barrier for noise pollution resulting from vehicle traffic created at the residential areas along the 415 km transportation corridor.

The noise barrier was built between km 133+000 and km 133+660 of the project with a 660 meter length and 2,445 m<sup>2</sup> area produced from the tires that completed their lives. Technical information about the noise barrier which is both environment-friendly and serves a social purpose is presented at the table below.

In the noise barrier project, tires are used in granular form and waste ratio is minimized; pollution is detected at source, prevented, energy sources are efficiently used and negative effects on environment is reduced.

Barrier Location	Barrier Length (m)	Barrier Length (m)	Barrier Area (sqm)
Akfirat	195	3	585
	465	4	1,860
	660		2,445



### Support for recycling with waste management activities

Waste sent from NMM, maintenance operations and Garipçe Main Control Center are sent to recycling or for disposal in collaboration with related organizations.

- Other engine, transmission and lubrication oils
- Mud from Oil/Water separator
- Oily water from Oil/Water separator
- Tires that completed their lives
- Various cables
- Various liquid and solid oils
- Metals
- Paper and carton packaging
- Plastic packaging
- Soil and stones containing hazardous material
- Dredging mud containing hazardous material
- Other insulating material composed of or containing hazardous material
- Bottom ash and flux containing hazardous material
- Wooden waste
- Plastics
- Mixed packaging
- Paper and carton

### Green Badge to NMM from ESCAP

Overseeing sustainability activities in all management and operation processes, NMM wins appreciation outside the country with its green environment policies.

Asia Pacific Economic and Social Commission (ESCAP) within the United Nations (UN) presented the "Asia-Pacific Green Contract Badge" to NMM for its environment policies and sustainable development activities.

As a result of ESCAP's assessment, NMM had its name in the list of companies which "devoted themselves to sustainability applications".

The Company will continue to develop its synergy with international organizations and institutions and be part of environment-focused projects in the following period.







## CONTRIBUTION TO BIODIVERSITY

### Protection of Imperial Eagle and Research of Bird Diversity

NMM conducts a scientific study aiming to protect the imperial eagle, which is endangered, and to research bird diversity at Istanbul Büyükçekmece Lake basin.

Imperial eagle (*Aquila heliaca*) is a species of eagle which is globally endangered and its number decreases around the world. It is known that this species has reproduction areas in Turkey, particularly in Thrace, Marmara, Internal Anatolia and Western Black Sea regions

Imperial eagle can survive even around a large city as Istanbul. NMM conducted the watching of imperial eagle nests close to road around Istanbul during the construction and operation of the motorway.

Imperial eagle nests were detected within the limits of Istanbul during this watching, new nests were found, baby counts were performed and reproduction success of the species was reviewed. Also, threats around the nesting areas were examined.



During the Imperial Eagle Watching and Research Study, information was shared with representatives and employees from NMM to increase awareness about the species by an expert biologist bird researcher.

Activities performed also included the research and assessments required to prevent potential negative impacts of the route of the motorway on birds. Accordingly, required measures were taken before the start of the road work and environmental impacts were tried to be minimized.

### Research at Büyükçekmece Lake basin

Within the scope of the project conducted at Büyükçekmece Lake basin which includes the overpass at 32+ km of the Northern Marmara Motorway, 60 bird species were detected. It was observed that this area is an important resting and feeding area during and after birds' migration.

An endangered duck species in Turkey, ferruginous duck (*Aythya nyroca*), was also found breeding at the reeds in the same area. Moreover, another raptor, black shouldered kite (*Elanus caeruleus*), which is rarely found in Istanbul was observed in that area.

NMM demonstrates its commitment for protecting natural life and sustainability of diversity; continues its efforts to minimize negative impacts of its activities on environment.



# GRI CONTENT INDEX



## GRI CONTENT INDEX

For the Content Index - Advanced Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for all disclosures are included correctly and aligned with the appropriate sections in the body of the report. The service was performed on the Turkish version of the Report.



<b>Statement of use</b>	Kuzey Marmara Otoyol İşletmesi (NMM) has reported in accordance with the GRI Standards for the period 01.01.2022-31.12.2022.
<b>GRI 1 used</b>	GRI 1: Foundation 2021
<b>Applicable GRI Sector Standard(s)</b>	N/A

GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>GENERAL DISCLOSURES</b>		
<b>GRI 2: GENERAL DISCLOSURES 2021</b>	2-1 Organizational details	NMM in Brief, Page: 11-12 NMM Organization Structure, Page: 21 <a href="https://www.kuzeymarmaraotoyolu.com/en/about-us">https://www.kuzeymarmaraotoyolu.com/en/about-us</a>
	2-2 Entities included in the organization's sustainability reporting	About the Report, Page: 6
	2-3 Reporting period, frequency and contact point	About the Report, Page: 6 Annually Contact person: Ezgi Kılıçkaya Phone: +90 531 767 75 24 E-mail: ezgi.kurt@avrupaotoyolu.com
	2-4 Restatements of information	This report is NMM's first sustainability report.
	2-5 External assurance	No external assurance "was received.
	2-6 Activities, value chain and other business relationships	NMM in Brief, Page: 11-12 NMM's Route, Page: 14 Motorway Service Centers, Page: 15 Electrical Vehicle Charging Stations, Page: 16 <a href="https://www.kuzeymarmaraotoyolu.com/en/about-us">https://www.kuzeymarmaraotoyolu.com/en/about-us</a> <a href="https://www.kuzeymarmaraotoyolu.com/en/about-the-project">https://www.kuzeymarmaraotoyolu.com/en/about-the-project</a>
	2-7 Employees	NMM Employment Data, Page: 39-43
	2-8 Workers who are not employees	NMM Employment Data, Page: 39-43

GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>GRI 2: GENERAL DISCLOSURES 2021</b>	2-9 Governance structure and composition	NMM Organization Structure, Page: 21-22 Members of the Board of Directors: Cemal KALYONCU-Chairman of the Board of Directors Naci KOLOĞLU-Vice Chairman of the Board of Directors Mehmet CENGİZ-Member of the Board of Directors Nihat ÖZDEMİR- Member of the Board of Directors Nail OLPAK- Member of the Board of Directors
	2-10 Nomination and selection of the highest governance body	NMM Organization Structure, Page: 21-22
	2-11 Chair of the highest governance body	Cemal KALYONCU-Chairman of the Board of Directors
	2-12 Role of the highest governance body in overseeing the management of impacts	NMM Organization Structure, Page: 21-22
	2-13 Delegation of responsibility for managing impacts	Sustainability Management at NMM, Page: 23
	2-14 Role of the highest governance body in sustainability reporting	NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23
	2-15 Conflicts of interest	<a href="https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy">https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy</a>
	2-16 Communication of critical concerns	Sustainability Management at NMM, Page: 23
	2-17 Collective knowledge of the highest governance body	NMM Organization Structure, Page: 21-22
	2-18 Evaluation of the performance of the highest governance body	NMM Organization Structure, Page: 21-22
	2-19 Remuneration policies	Our People Focus, Page: 38 <a href="https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy">https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy</a>
	2-20 Process to determine remuneration	Our People Focus, Page: 38 <a href="https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy">https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy</a>



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GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION	EXPLANATION OF INFORMATION NOT PROVIDED
<b>GRI 2: GENERAL DISCLOSURES 2021</b>	2-21 Annual total compensation ratio		(Confidentiality Constraints) Since it is a trade secret, this information is not shared pursuant to management decision.
	2-22 Statement on sustainable development strategy	Our Sustainability Framework, Page: 18 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24	
	2-23 Policy commitments	Integrated Management System (IMS), Page: 26 Applications for Driver Safety, Page: 32 Our People Focus, Page: 38 <a href="https://www.kuzeymarmaraotoyolu.com/en/our-environmental-policy">https://www.kuzeymarmaraotoyolu.com/en/our-environmental-policy</a> <a href="https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy">https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy</a>	
	2-24 Embedding policy commitments	NMM Organization Structure, Page: 22 <a href="https://www.kuzeymarmaraotoyolu.com/en/about-us">https://www.kuzeymarmaraotoyolu.com/en/about-us</a>	
	2-25 Processes to remediate negative impacts	Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24	
	2-26 Mechanisms for seeking advice and raising concerns	Customers can submit their questions and complaints via the Customer Services Hotline (0850 259 00 61) on the homepage of the company website and the Highway Emergency Helpline (161) that operates 7x24 <a href="https://www.kuzeymarmaraotoyolu.com">https://www.kuzeymarmaraotoyolu.com</a>	
	2-27 Compliance with laws and regulations	KMO carries out all its activities in full compliance with the laws, regulations and legislation that are valid in Turkey and binding for the company.	

GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>GRI 2: GENERAL DISCLOSURES 2021</b>	2-28 Membership associations	Corporate Memberships: <ul style="list-style-type: none"> <li>• INTES (The Turkish Employers' Association of Construction Industries)</li> <li>• The Turkish Asphalt Contractors Association (ASMÜD)</li> <li>• IRF (International Road Federation GENOVA)</li> <li>• IRF (International Road Federation U.S.A.)</li> <li>• ESCAP (The United Nations (UN) Economic and Social Commission for Asia and the Pacific)</li> <li>• ESNB-ESCAP Sustainable Business Network</li> <li>• ITS (Intelligent Transportation Systems Association of Türkiye)</li> </ul>
	2-29 Approach to stakeholder engagement	NMM Materiality Assessment, Page: 19
	2-30 Collective bargaining agreements	At NMM there are no collective bargaining agreements.
<b>MATERIAL TOPICS</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-1 Process to determine material topics	NMM Materiality Assessment, Page: 19-20
	3-2 List of material topics	<ol style="list-style-type: none"> <li>1. Occupational Safety and Health</li> <li>2. Business Ethics</li> <li>3. Talent and Career Management</li> <li>4. Energy Efficiency</li> <li>5. Risk and Opportunity Management</li> <li>6. Equality Rights and Diversity at Work</li> <li>7. Legal Compliance</li> <li>8. Protection of Personal Data</li> <li>9. Employee Rights</li> <li>10. Resilience (Natural Disaster/Pandemic Management)</li> <li>11. Social Responsibility/Social Contribution</li> <li>12. Cyber Security</li> <li>13. Service Quality</li> <li>14. Water Management</li> <li>15. Customer Satisfaction</li> <li>16. Carbon Reduction</li> <li>17. Reputation Management</li> <li>18. Environment-Friendly Materials</li> <li>19. Biodiversity</li> <li>20. Environment-Friendly Buildings (Green Buildings, Smart Buildings, etc.)</li> <li>21. Suppliers' Environmental, Ethical and Social Compliance</li> <li>22. Innovation - R&amp;D</li> <li>23. Technological Investments</li> <li>24. Digitalization Investments</li> <li>25. Solid Waste Management</li> </ol>



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GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>OCCUPATIONAL SAFETY AND HEALTH</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Occupational Health and Safety Management, Page: 44-47 <a href="https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy">https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy</a>
<b>GRI 403: OCCUPATIONAL HEALTH AND SAFETY 2018</b>	403-1 Occupational health and safety management system	Occupational Health and Safety Management, Page: 44-47
	403-2 Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety Management, Page: 44-47
	403-3 Occupational health services	Occupational Health and Safety Management, Page: 44-47
	403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety Management, Page: 44-47
	403-5 Worker training on occupational health and safety	Occupational Health and Safety Management, Page: 44-47
	403-6 Promotion of worker health	Occupational Health and Safety Management, Page: 44-47
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health and Safety Management, Page: 44-47
	403-8 Workers covered by an occupational health and safety management system	Occupational Health and Safety Management, Page: 44-47
	403-9 Work-related injuries	Occupational Health and Safety Management, Page: 44-47

GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>BUSINESS ETHICS/ RISK AND OPPORTUNITY MANAGEMENT / LEGAL COMPLIANCE</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24
<b>TALENT AND CAREER MANAGEMENT / EQUALITY RIGHTS AND DIVERSITY AT WORK / EMPLOYEE RIGHTS</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24 Our People Focus, Page: 37-43 <a href="https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy">https://www.kuzeymarmaraotoyolu.com/en/our-hr-policy</a>
<b>GRI 401: EMPLOYMENT 2016</b>	401-1 New employee hires and employee turnover	NMM Employment Data, Page: 39-43
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	At NMM there are were no benefits provided to full-time employees that are not provided to temporary or part-time employees.
	401-3 Parental leave	NMM Employment Data, Page: 39-43



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GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>GRI 404: TRAINING AND EDUCATION 2016</b>	404-1 Average hours of training per year per employee	NMM Employment Data, Page: 39-41
	404-2 Programs for upgrading employee skills and transition assistance programs	NMM Employment Data, Page: 39-41
	404-3 Percentage of employees receiving regular performance and career development reviews	NMM Employment Data, Page: 39-41
<b>GRI 405: DIVERSITY AND EQUAL OPPORTUNITY 2016</b>	405-1 Diversity of governance bodies and employees	Our People Focus/NMM Employment Data, Page: 38-39, 41
<b>GRI 406: NON-DISCRIMINATION 2016</b>	406-1 Incidents of discrimination and corrective actions taken	There were no incidents of discrimination during the reporting period.
<b>ENERGY EFFICIENCY / WATER MANAGEMENT / CARBON REDUCTION / ENVIRONMENT-FRIENDLY MATERIALS / BIODIVERSITY / ENVIRONMENT-FRIENDLY BUILDINGS / SOLID WASTE MANAGEMENT</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24 Our Contribution to Environment, Page: 55-64 <a href="https://www.kuzeymarmaraotoyolu.com/en/environmental-management">https://www.kuzeymarmaraotoyolu.com/en/environmental-management</a>
<b>GRI 302: ENERGY 2016</b>	302-1 Energy consumption within the organization	Environment Management from Project Phase to Today, Page: 56-58
	302-4 Reduction of energy consumption	Environment Management from Project Phase to Today, Page: 56-58
	302-5 Reductions in energy requirements of products and services	Environment Management from Project Phase to Today, Page: 56-58

GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>GRI 303: WATER AND EFFLUENTS 2018</b>	303-3 Water withdrawal	Environment Management from Project Phase to Today, Page: 56, 58
	303-4 Water discharge	Environment Management from Project Phase to Today, Page: 56, 58
	303-5 Water consumption	Environment Management from Project Phase to Today, Page: 56, 58
<b>GRI 304: BIODIVERSITY 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Landscaping Activities, Page: 59-61 Contribution to Biodiversity, Page: 62-64
	304-2 Significant impacts of activities, products and services on biodiversity	Landscaping Activities, Page: 59-61 Contribution to Biodiversity, Page: 62-64
	304-3 Habitats protected or restored	Landscaping Activities, Page: 59-61 Contribution to Biodiversity, Page: 62-64
<b>GRI 305: EMISSIONS 2016</b>	305-1 Direct (Scope 1) GHG emissions	Environment Management from Project Phase to Today, Page: 56-58
	305-2 Energy indirect (Scope 2) GHG emissions	Environment Management from Project Phase to Today, Page: 56-58
	305-3 Other indirect (Scope 3) GHG emissions	Environment Management from Project Phase to Today, Page: 56-58



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GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>GRI 306: WASTE 2020</b>	306-1 Waste generation and significant waste-related impacts	Environment Management from Project Phase to Today, Page: 56 Biodiversity, Page: 63
	306-2 Management of significant waste-related impacts	Environment Management from Project Phase to Today, Page: 56 Biodiversity, Page: 63
	306-3 Waste generated	Environment Management from Project Phase to Today, Page: 56 Biodiversity, Page: 63
	306-4 Waste diverted from disposal	Environment Management from Project Phase to Today, Page: 56 Biodiversity, Page: 63
	306-5 Waste directed to disposal	Environment Management from Project Phase to Today, Page: 56 Biodiversity, Page: 63
<b>PROTECTION OF PERSONAL DATA / CYBER SECURITY</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24 Integrated Management System, Page: 25-26 NMM Infrastructure Systems/NMM Security Systems, Page: 29 Smart Transportation Systems, Page: 30 <a href="https://www.kuzeymarmaraotoyolu.com/Content/files/%C3%A7eviri%20KVKK_%C3%87a%C4%B1%C5%9Fan%20Aday%C4%B1%20Ayd%C4%B1latma-ORTAK-KMO-AVRUPA.pdf">https://www.kuzeymarmaraotoyolu.com/Content/files/%C3%A7eviri%20KVKK_%C3%87a%C4%B1%C5%9Fan%20Aday%C4%B1%20Ayd%C4%B1latma-ORTAK-KMO-AVRUPA.pdf</a>
<b>GRI 418: CUSTOMER PRIVACY 2016</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	There were no substantiated complaints concerning breaches of customer privacy and losses of customer data during the reporting period.

GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>RESILIENCE (NATURAL DISASTER/PANDEMIC MANAGEMENT) / SERVICE QUALITY / CUSTOMER SATISFACTION / REPUTATION MANAGEMENT</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24 Integrated Management System, Page: 25-26 Applications for Driver Safety, Page: 32-35
<b>GRI 416: CUSTOMER HEALTH AND SAFETY 2016</b>	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	There were no incidents of non-compliance concerning the health and safety impacts of products and services during the reporting period.
<b>GRI 417: MARKETING AND LABELING 2016</b>	417-2 Incidents of non-compliance concerning product and service information and labeling	There were no incidents of non-compliance concerning product and service information and labeling during the reporting period.
	417-3 Incidents of non-compliance concerning marketing communications	There were no incidents of non-compliance concerning marketing communications during the reporting period.
<b>SOCIAL RESPONSIBILITY/SOCIAL CONTRIBUTION</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24 Our Social Contribution, Page: 50-53



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GRI STANDARD	DISCLOSURE	LOCATION/EXPLANATION
<b>SUPPLIERS' ENVIRONMENTAL, ETHICAL AND SOCIAL COMPLIANCE</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24
<b>GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT 2016</b>	308-2 Negative environmental impacts in the supply chain and actions taken	There were no significant negative environmental impacts in the supply chain during the reporting period.
<b>GRI 414: SUPPLIER SOCIAL ASSESSMENT 2016</b>	414-2 Negative social impacts in the supply chain and actions taken	There were no significant negative social impacts in the supply chain during the reporting period.
<b>INNOVATION - R&amp;D / TECHNOLOGICAL INVESTMENTS / DIGITALIZATION INVESTMENTS</b>		
<b>GRI 3: MATERIAL TOPICS 2021</b>	3-3 Management of material topics	Message from the CEO, Page: 8-10 Our Sustainability Framework, Page: 18 NMM Materiality Assessment, Page: 19-20 NMM Organization Structure, Page: 21-22 Sustainability Management at NMM, Page: 23 Working Principles of NMM Sustainability Committee, Page: 24 Applications for Driver Safety, Page: 32-35



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Thank you.



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