



BAZAN GROUP



Bazan Group ESG Report 2022

Committed to a Sustainable Future





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ESG Report 2022

Committed to a Sustainable Future

Table of Contents

A Message from the Chairman and from the CEO 6	Committed to the Environment 36	Committed to Social and Economic Development 70	Committed to the Community 76	Committed to Sound Governance 92	Data and Indices 104
Committed to ESG Principles 8	Reduction of GHG Emissions 38	Driving Israel's Economy and Energy Industry Forward 72	Human Resource Development 82	Compliance, Ethics, and Anti-Corruption 95	About This Report.....106
Introducing the Bazan Group10	Energy and climate 42	Increasing our Positive Impact through Collaborations..... 74	Safety and Health 85	Corporate Governance..... 99	Group data.....110
About the Bazan Group.....12	Innovation and Technological Solutions 50		Employee Healthh..... 91	Risk Managemen101	GRI.....117
Bazan Group's strategy 22	Water and Wastewater Treatment..... 54				SASB 121
Our impact..... 26	Waste Management at the Group..... 60				
	Promoting a circular economy..... 63				



A Message from the Chairman and from the CEO

Sustainability under War Clouds

We are proud to present our ESG report for 2022. The report summarizes our extensive activities as well as our plans in this field, for the short and long term.

We are proud to present our ESG report for 2022. The report summarizes our extensive activities as well as our plans in this field, for the short and long term.

Although this is a report covering our activities in the past year, we cannot ignore the current unfolding events, with the State of Israel at war following the terrorist attack of the seventh of October and the Israeli home front being under fire. Since the war broke out, Bazan Group joined the war effort in three key fronts - maintaining the energy continuity of the energy sector, supplying products to customers in the petrochemical industry, and providing significant support to the Israeli home front.

Bazan's Board of Directors gave the order to increase to NIS 30 million the budget of donations and support to the home front following the war, and the Group focuses its support on the provision of housing solutions to evacuees, mental health support, and the welfare of IDF soldiers who take part in the war. After its initial response to a wide range of needs, Bazan decided to focus its efforts on supporting the evacuees of Kibbutz Nahal Oz, one of the worst-hit Kibbutzim that was attacked on October seventh. Bazan intends to support the Nahal Oz evacuees and meet their needs during this period.

In this difficult period, the Group and its 1,500 employees act out of a deep commitment to the Israeli public.

In July 2021, Bazan formulated and released a new strategy, delineating our vision of building a bridge to the future. By adopting ESG principles as a way of life, we are not only taking aim at our direction for future growth, but also charting the course we will take towards our goals, as a company and as an economic organization, to realize the immense potential inherent in our activities.

The report provides us with a snapshot of the short-term activity and the meaning of the long-term strategy. As part of our strategic approach to hydrogen, we are examining a broad spectrum of future uses, the most innovative of which is the use of hydrogen to produce aviation fuel by implementing new technologies that will allow the production of sustainable aviation fuel. In the field of polymers, we lay the foundations of a technology that is in its infancy worldwide - chemical recycling. Thus technology will make it possible to convert - in the foreseeable future - non-recyclable plastics into raw materials for Bazan's facilities, realizing the ideal of a circular economy. Our innovation efforts encompass the work of every part of the Group - development, manufacturing, and headquarters - promoting technologies, research, and collaborations with groundbreaking entrepreneurs.

Since the publication of the Bazan Group's strategy, we have witnessed profound global and local shifts. A global energy crisis, geopolitical changes, including the Ukraine-Russia war and the current war in Israel may significantly increase economic uncertainty. Bazan's crucial role in maintaining energy continuity in the Israeli energy sector has become all the more important during the war; we will continue to fulfill this role in the future while promoting innovation in a sustainable industry, and serving as a social-economic anchor in the State of Israel in general and in the north of the country in particular.

Bazan's overall contribution to the Israeli economy in 2022 is estimated at approximately NIS 8 billion, in addition to the direct and indirect creation of **approximately 16,300 jobs, mostly in northern Israel**. Anyone who was also exposed to the current economic forecasts recognizes the power and importance of Bazan for the northern region of the country.



Moshe Kaplinsky
Chairman of the Board
of Directors



Asaf Almagor
CEO

Our worldview places great emphasis on setting and achieving short-term goals, as part of the Group's obligation to all of its stakeholders.

Our **environmental impact** is a frequent target of public interest; the data in this report unequivocally demonstrate our progress in this area. Since 2009, we have reduced emissions at our facilities by 96%; in a concerted effort since 2016, we have cut approximately 90% of benzene emissions. This was made possible thanks to an investment of more than NIS 2.2 billion. We set a goal for 2024 to reduce the volume of benzene emissions by 66%, compared to the volume of emissions in 2018, and we have already achieved the goal and even improved it - an 84% reduction compared with 2018, one of the lowest in the world. Furthermore, we managed to maintain the refinery's positioning in the 15th percentile of companies with the lowest environmental impact, based on the European BREF, and in the current report we have updated the positioning to the 10th percentile by 2024.

40% women in senior management in 2022. Though this may not sound very significant, we feel that any of our readers who takes a look around will see that this figure - 40% - is meaningful. More than just a statement, it reflects our belief in women's power and in the importance of women's leadership to our organization.

A last example of our investment in the here and now is reflected in the chapter dealing with the treatment of hazardous waste. Superficially, waste treatment may seem like a dry and unexciting topic - but our investment has already led to improvement in 2022, with a 6% decrease in total hazardous waste compared with 2021 and a 35% decrease since 2016. Some of the solutions that made this achievement possible stem from new ideas that were developed in-house at Gadiv and Carmel Olefins, allowing hazardous waste designated for landfilling to be converted for use as raw materials for new product, in a circular-economy model.

The challenges facing the Israeli economy as a whole, and Bazan as a significant player within the Israeli market, are substantial; we are proud of the path we have chosen and of our ability to build and become an essential bridge to a better world.

In conclusion, we see the Group as a significant pillar of the energy sector and the national resilience; the task rests on our shoulders and together we will win.

Asaf Almagor
CEO

Moshe Kaplinsky
Chairman of the Board
of Directors

Committed to ESG principles



Hagit Genish Gill
Head of ESG

Every day as well as during emergencies

Imagine: one day, a company in its ninth decade decides to make a change. The company sets out to create a sustainability-focused vision; designs strategy to realize its vision, with ESG as one of four pillars; sets clear goals and writes work plans; allocates resources – and begins to change its reality.

That is the story of the Bazan Group.

I am proud to share our ESG report for 2022, a year in which we took a major leap forward. This report will guide you along the path we took through environmental, social, and -governance issues. Ducor, the Group's polymer manufacturing subsidiary in the Netherlands, is included in the report for the first time.

We publish this report under clouds of war, after an unprecedented terror attack against the citizens of Israel, which took place on October seven. **Specifically in these times, we witness the critical role played by the civil society and the business sector in maintaining the resilience of our communities - through mobilization and unwavering commitment.**

Bazan Group allocates a total of NIS 30 million for support to be provided to those communities that were hit, residents that were evacuated from their homes - and our home front in general. We are fully committed to our community, solidarity and ESG principles, which - in this period more than ever - serve as our guiding principles.

In recent years, we have seen almost daily shifts in the field of ESG: emerging trends in the capital market, new policies adopted around the world, regulations implemented in successive countries, and intense public discourse. We are

adopting these trends, acting on our belief that the key to a responsible energy transition can be found in traditional heavy industries.

Two years ago, we named ESG one of the 4 pillars of the overall strategy of the Bazan Group. From that point forward, we began to promote ESG principles in our business and organizational culture.

In 2022, we took a significant step forward in this field, by establishing an ESG unit, reporting to the CEO; formulating ESG strategy; and working synergetically with all of the units of the Group, in partnership with our employees.

As initial measures, we expanded our ESG reporting, in line with the international reporting standards GRI and SASB; worked towards improved transparency and deeper stakeholder relationships; raised awareness among management and employees; built infrastructures and formalized methodologies for the various fields; established dedicated working committees; increased our engagement with the professional ecosystem; and led enterprise-wide initiatives in each category.

We made progress towards our goals, and set new and more ambitious targets. At the date of publication of this report, the Group's **senior management consists of 40% women**. In the environmental space, our goal is to be in the



10th decile of refineries with lowest environmental impact, based on the BREF in Europe, by 2025 (10th percentile). In **safety**, we are cultivating a sound corporate culture through our Safety Climate program, in partnership with academic institutions; and in **climate** issues, we have signed an agreement to purchase green electricity; over the coming years, approximately 50% of Bazan's average expected power consumption under the agreement will rely on certified green electricity. Concurrently, we are working to formulate a long-term plan for the reduction of the Group's carbon emissions

In the area of hydrogen and the circular economy, we launched Israel's first hydrogen-based fuel station for trucks, in northern Israel; founded the first and only hydrogen laboratory of its kind in Israel; completed the acquisition of VPM, which recycles industrial waste; and earned ISCC certification (an international sustainability standard) for green polymers manufactured by Ducor.

We worked to embed ESG principles in our organizational culture and business processes: Business opportunities and decision-making processes are promoted with an emphasis on ESG; weekly updates are given in management meetings and to the board of directors' safety and ESG committee; hundreds of managers and employees have attended organization-wide training; and Group employees are involved in strategic ESG processes, in partnership with management.

Governance: We have built ESG infrastructures and created an ESG steering committee, which spearheads the organization's ESG efforts and helps spur enterprise-wide processes. One such process involves fine-tuning our social investment strategy, in cooperation with employees and union representatives and in line with the United Nations' Sustainable Development Goals (SDGs).

All of my colleagues in management are partners in this intensive and important work, as you will see throughout this report.

Looking ahead, we will continue to move forward at Bazan, attaining the highest standards in this field and adopting global best practices, to realize the Group's vision and overarching strategy. As always, we will work in partnership with our stakeholders, creating value for them.

Above all, we are proud of the partnership and engagement of our employees – the driving force of the Bazan Group and our most valuable collaborators – and we believe that to succeed, we must all strive towards a common goal.

I invite you to read and share the report, and to contact us at BazanESG@bazan.com for further dialogue and to continue the important work ahead.

Hagit Genish Gill
Head of ESG



Bazan Group



Introducing Bazan Group


Who we are

The Bazan Group is one of Israel's largest and most complex energy groups, and the operator of a refinery and petrochemical conglomerate serving industry, transportation, agriculture, infrastructure, and households.

The Company is traded on the Tel Aviv Stock Exchange; as of the end of 2022, it has approximately 1,500 direct employees. The Group holds the largest, foremost refining and petrochemicals conglomerate in Israel. In addition to its wide range of petroleum products, the Group is a leader in the production of downstream products, primarily polymers for the plastics industry, as well as aromatics, which constitute intermediate products for manufacturing numerous products, such as apparel, packaging, pharmaceuticals, and paints.

The Group is active both domestically and globally; the range of products produced by the Company contributes directly and indirectly to the Israeli economy, creating presence for Blue & White (made in Israel) products around the world.

The Group operates in two geographic areas. In Israel, the Company's plants are located in the Haifa Bay region, in addition to operations through VPM Plast in the Western Galilee; in the Netherlands, it operates through Ducor Petrochemicals B.V. (hereinafter - "Ducor"), a polymer factory in the port city of Rotterdam.

- 
- 1938**
Refineries are established in the Haifa Bay by the British company CRL (Consolidated Refineries Limited)
 - 1959**
The refineries turn into an Israeli state-owned company
 - 1971**
The Israel Corporation becomes a major shareholder of the Haifa Refineries
 - 1976**
Bazan acquires holdings in Gadot Petrochemical Industries
 - 2006**
The Ashdod Refinery is sold to Paz as part of the privatization of the Company
 - 2007**
Privatization is completed; taken public, the Company is now controlled by the Israel Corporation and Israel Petrochemical Enterprises
 - 2009**
The refining and petrochemicals conglomerate is formed through the merger of Carmel Olefins Ltd. and the acquisition of Ducor in Western Europe
 - 2011**
The facilities of the Group are converted to natural gas
 - 2013**
The construction of the hydrocracker is completed – a facility for the production of clean fuels
 - 2021**
The Group presents a new strategy to guide its operations for the coming decades
 - 2022**
Control of VPM is acquired, as part of the strategic plan in the area of waste recycling
 - 2023**
Launch of the first hydrogen-powered vehicle charging station in Israel, in collaboration with Sonol and Colmobil

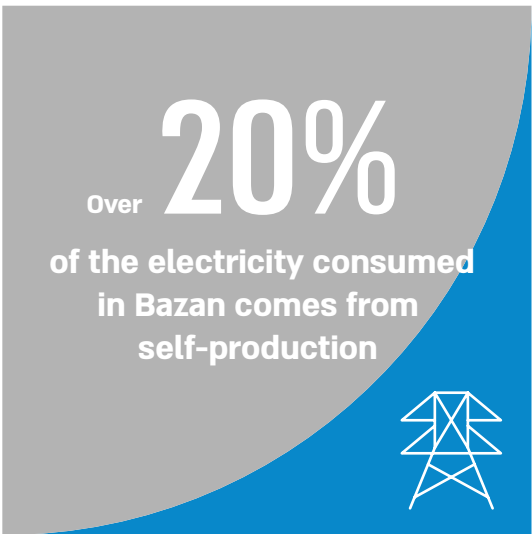
Over 80 years of leadership



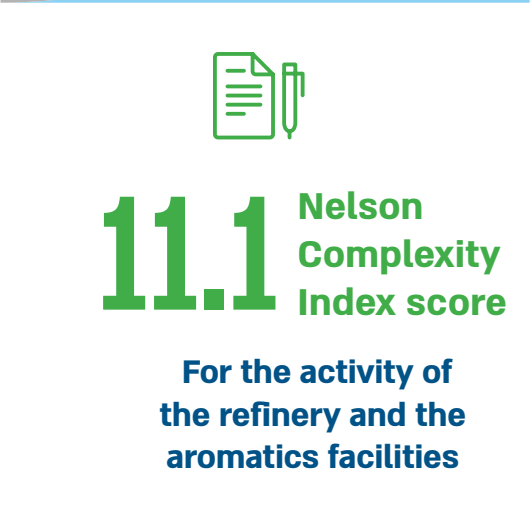
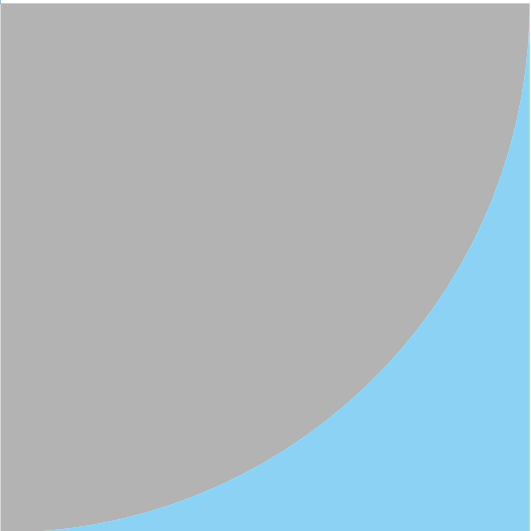
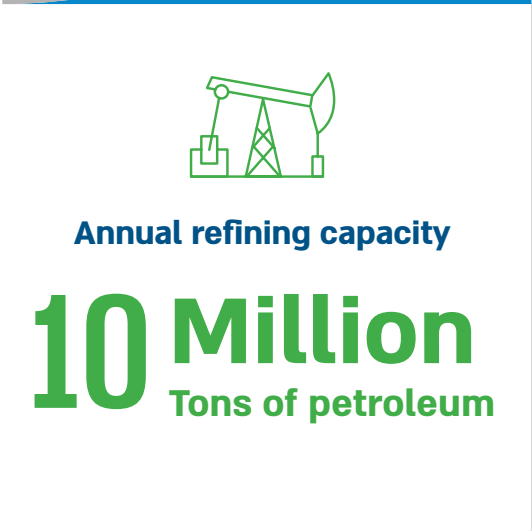
2 Main areas of activity:

Refining
through Bazan Ltd. (Bazan)
Gadiv Petrochemical Industries Ltd. (Gadiv)

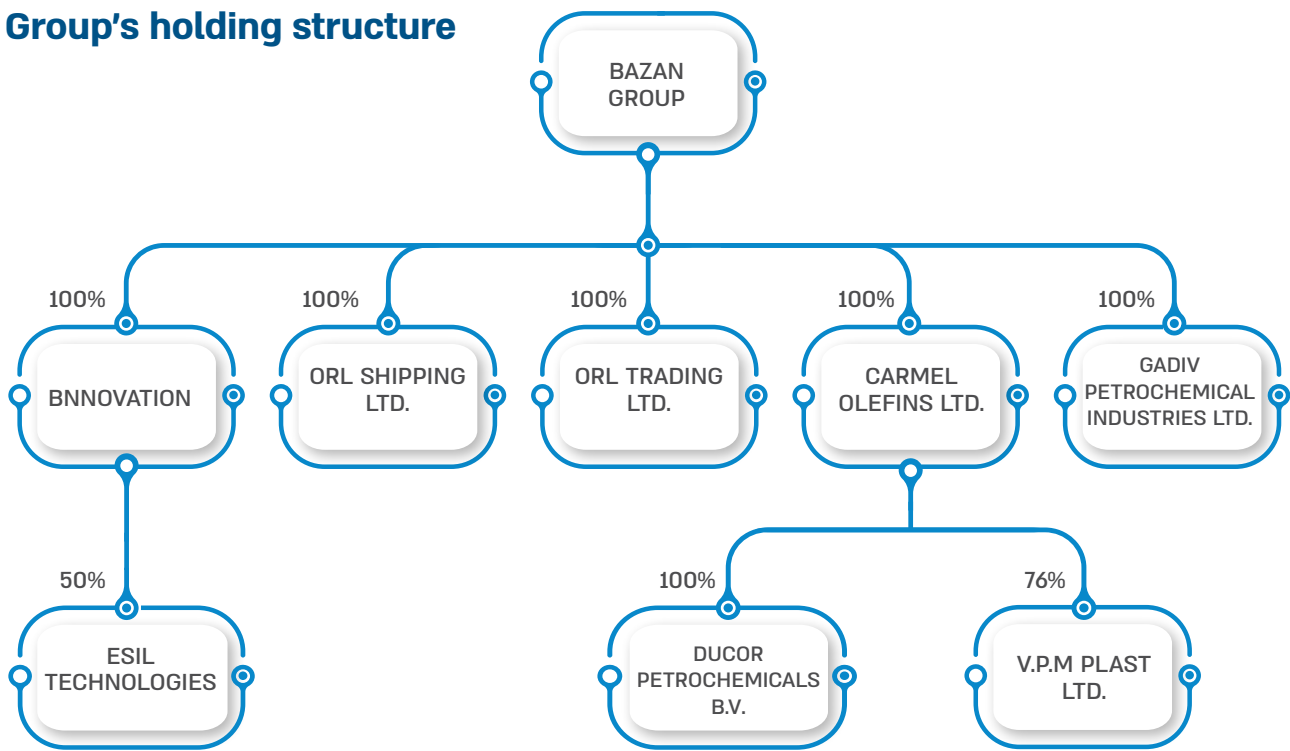
Polymers
Via Carmel Olefins, Ducor, and VPM



2
Geographic areas:
Israel and Europe
(The Netherlands)



The Group's holding structure



* According to a report by global consulting firm BDO for 2022.

Areas of activity

The Refineries

In its refining operations, the Company refines, separates, and processes crude oil into finished products and raw materials used to manufacture other products.

The refined products have a broad range of applications relevant to meeting people's needs and making the modern way of life possible, in industry, consumer goods, transportation, and agriculture.

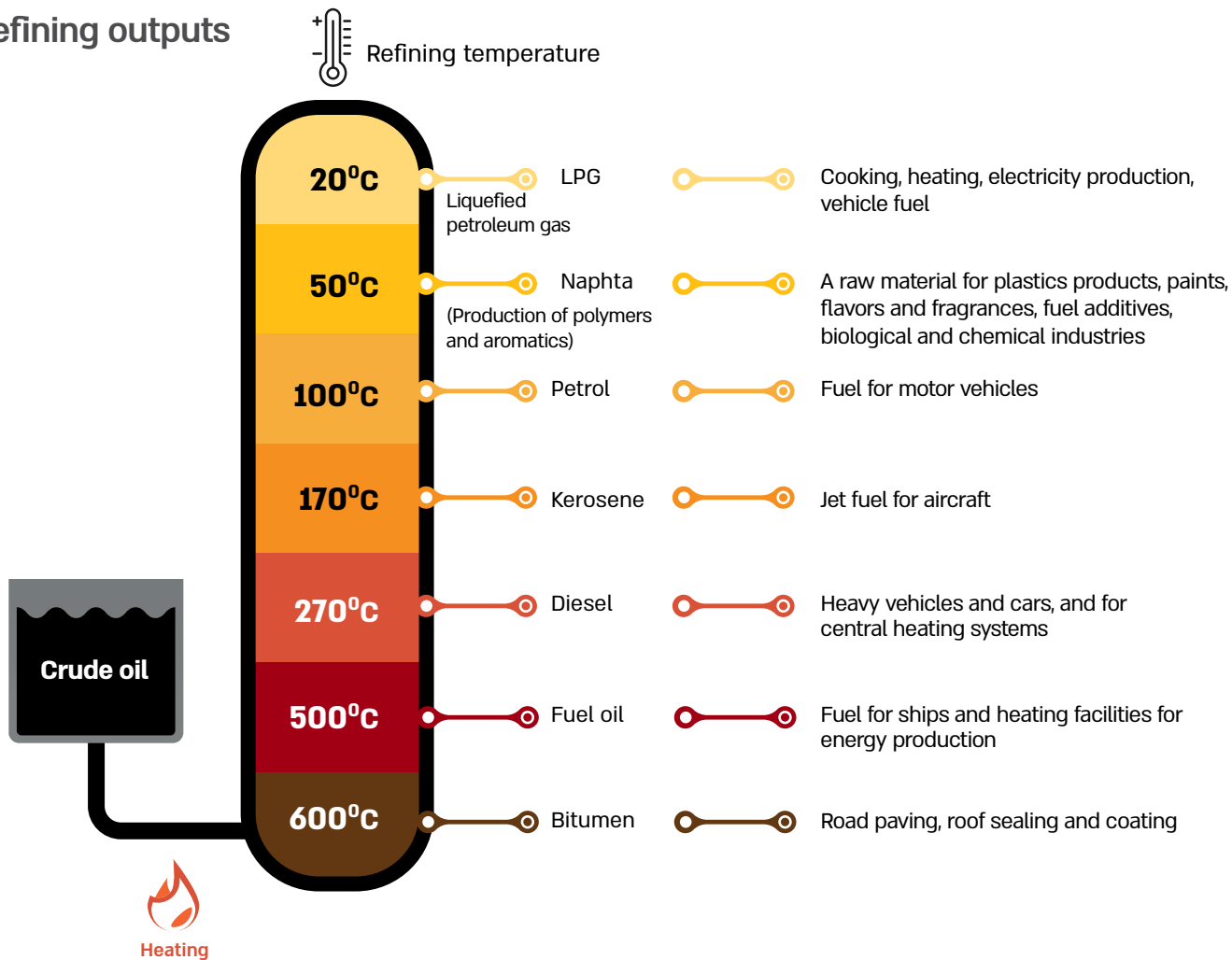
Crude oil reaches the refinery via tankers, from various global sources. The core element of the production process is refining, in which the various components of crude oil are separated and transformed into useful products.

Refining processes are carried out at high temperatures of approximately 400°C. The products are differentiated by their respective boiling points.

The unrefined residue remaining at the end of the refining process is used to produce asphalt and fuel oil. The residue undergoes a visbreaking process aimed at converting the fuel oil into a product that can flow through a pipeline at ambient temperatures. The products undergo finishing-off processes for the purpose of decontamination and cleansing, and to improve product attributes, such as by reducing sulfur content.

In the final stage, the products undergo finishing processes in order to meet the requisite specifications.

Refining outputs



Polymers

Bazan Group manufactures polypropylene and polyethylene, the main raw materials used in the plastics industry. Production is carried out at Carmel Olefins, a private company wholly owned by the Group, and through Ducor, a private company under the ownership of Carmel Olefins, registered and operating in the Netherlands.

Clients of the Group in this area are primarily plants using polymers to manufacture plastic products which are widely used in everyday life.

Polymer production

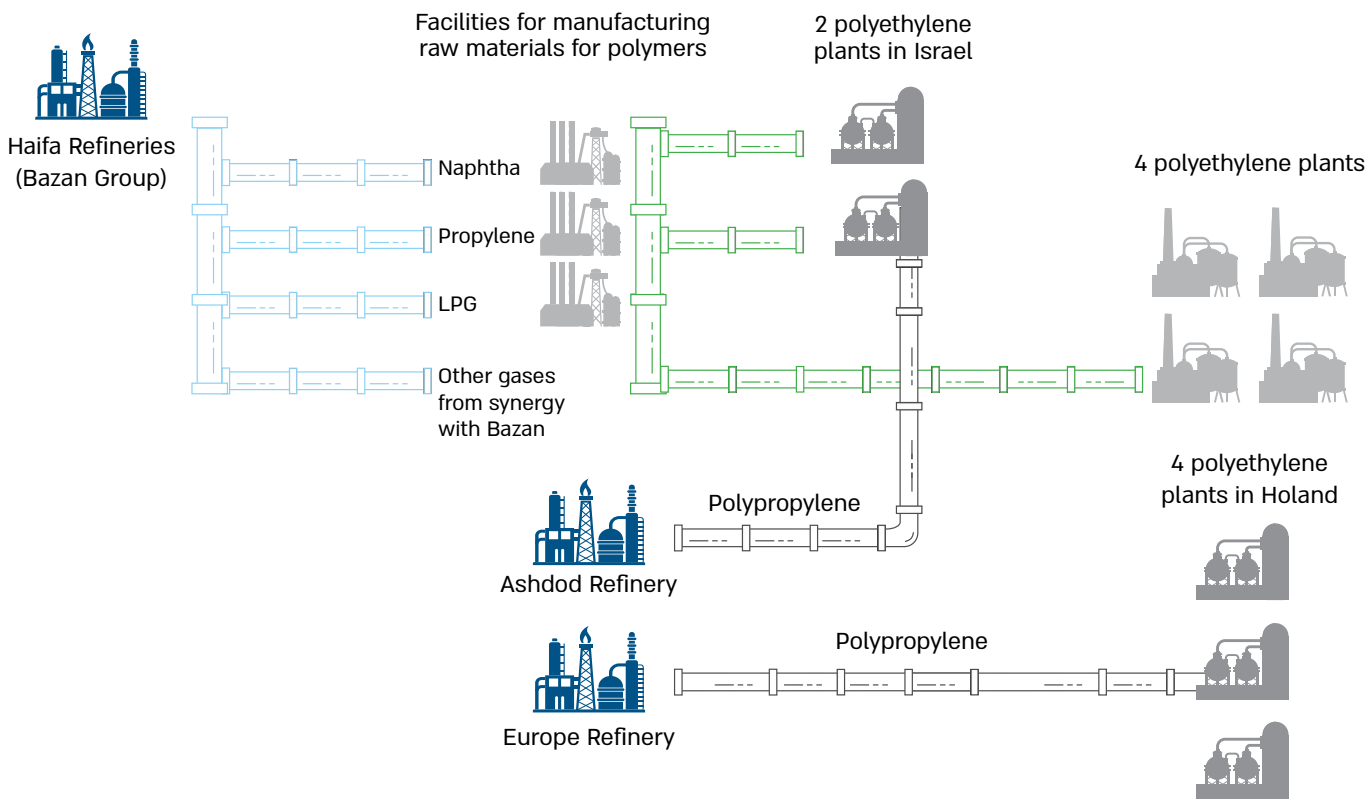
The Carmel Olefins production plants in Israel operate as a single concern and are mutually dependent on the continuous operation of each of the plants and of the Company's facilities.

Carmel Olefins operates three main clusters of plants: the monomer plants cluster (the naphtha and LPG cracker facility, for ethylene and propylene production, and the OCU facility, which manufactures propylene); the polypropylene plants cluster; and the polyethylene plants cluster.

Manufacturing processes are performed at a wide range of temperatures, from -165°C to approximately 900°C. The Carmel Olefins plants are interconnected directly by a pipeline system and receive shared services such as electricity, steam, and water supply, storage, and other services from a central service system, part of which is mutually backed by the Group's service system.

Ducor manufactures polypropylene from propylene, a raw material used in the plastics industry.

Access to a variety of raw materials



Synergy between facilities as a basis for improved operational efficiency

The Bazan Group operates in the areas of refining, olefin production, and petrochemical industries, in Israel and Europe. The structure of the Group and the concentration of its facilities in a single geographic region in Israel confer significant benefits:

1. The concentration of the plants allows maximal utilization of raw materials, along with reduction of byproducts of the refining and production processes, as the byproducts of one process serve as raw materials for another. Energy and intermediate materials used in the work process can also serve the other plants.
2. The companies work jointly to maximize the added value derived from their collaboration. For example, production planning is performed by the Optimization Unit; inputs such as natural gas, electricity, and others are purchased jointly; and headquarters provides services to all of the Group companies and integrates their needs with maximum efficiency.



Uses of refined products in every area of life

Refinery outputs are used in manufacturing, consumer goods, transportation, and agriculture.



Transportation



Land transportation

Output: gasoline and diesel fuel
Production: Refineries



Jet fuel

Output: kerosene
Production: Refineries



Asphalt for roads

Output: Bitumen;
production: Refineries



Ship fuel (low-sulfur fuel oil)

Output: fuel oil;
production: Refineries



Manufacturing



Energy and raw materials for manufacturing

Output: Fuel oil and additional Products
Production: Refineries



Paints

Output: Paraxylene
Production: Gadiv



Sealing products

Output: Bitumen
Production: Refineries



Vehicle components

Output: Polymers
Production: Carmel Olefins, Ducor



Pipelines

Output: polymers
Production: Carmel Olefins, Ducor



Insulation products

Output: Bitumen
Production: Refineries



Cooling system additives

Output: Aromatics
Production: Gadiv



Agriculture



Pesticides

Output: Ssolgad
Production: Gadiv



Pharmaceuticals

Output: Toluene
Production: Gadiv



Sheets for agriculture

Output: Polymers
Production: Carmel Olefins, Ducor



Pesticides

Output: Orthoxylene
Production: Gadiv



At home



Household cooking gas

Output: Liquefied petroleum gas (LPG)
Production: Refineries



Green home systems

Output: Polymers
Production: Carmel Olefins, Ducor



Home and garden furniture

Output: Polymers
Production: Carmel Olefins, Ducor



Fibers (for carpet production)

Output: Polymers
Production: Carmel Olefins, Ducor



Household goods

Output: Polymers
Production: Ducor



Textiles

Output: Polymers
Production: Ducor



Consumer goods



Medical protective equipment

Output: Polymers
Production: Carmel Olefins, Ducor



Cosmetics

Output: Aromatics
Production: Gadiv



Cosmetics packaging

Output: Polymers
Production: Ducor



Diapers

Output: Polymers
Production: Carmel Olefins



Toys

Output: Polymers
Production: Carmel Olefins, Ducor



Shelf-life extending food packaging

Output: Polymers
Production: Carmel Olefins, Ducor



Bottles

Output: Polymers
Production: Carmel Olefins, Ducor



Toolboxes

Output: Polymers
Production: Carmel Olefins, Ducor



Packaging

Output: Fuels
Production: Refineries



Appliances

Output: Polymers
Production: Ducor



Clothing

Output: Polymers
Production: Carmel Olefins

Bazan Group's strategy

The Bazan Group introduced a long-term strategy in July 2021. In the course of 2022, the Company carried out a significant internal process to examine its strategy in view of the global energy crisis. This process, completed in 2023, considered current forecasts in comparison to earlier forecasts and brought greater focus to the work plans for the short and medium term.

Our strategy remains ESG-oriented, grounded in our commitment to be the bridge to a sustainable future, while we adapt the Group's operations to an evolving reality. This concept is interwoven with every aspect of our strategy.

“The Bazan Group will serve as an essential bridge to the future of the transportation energy sector in Israel, and lead a transformation focused on sustainability and innovation in the fuel and polymer business”

The Group's vision

The four pillars of the strategic plan

The strategy includes expansion of the Group's core activities while gradually adapting its operations to market trends. ESG principles underlie each component of the strategic plan and guide the Company's activity and organizational culture.

The robust economic and business foundation formed by the Group's existing core activities serve as the source for gradual development of, and investment in, new growth engines, while activities are sustainably adapted to changing market needs.



Fuels and infrastructures

The Bazan Group will continue to conduct refining operations, adapted to evolving market needs, with a reduced environmental footprint.

The Bazan Group will continue to invest in refining operations over time, maintaining energy continuity for the State of Israel, while flexibly diversifying its product mix in congruence with changing market needs and leveraging opportunities.

In terms of fuels, this means reinforcing Bazan's leadership in the transportation fuel market in Israel through digitization, embedding advanced technologies in production, innovation, and continued reduction of the environmental impacts of the Group's operations, while continuing to adapt to market changes, and collaborating on pilot projects in a range of innovative technologies, with the aim of improving routine functioning and maximizing activity.



Green polymers

The Bazan Group continues to prepare for the challenges of the future in the field of polymers, reflected in growing demand for polymers along with a need to supply the demand using recycled and biodegradable materials.

The combination of skilled professional human capital with advanced manufacturing technologies enables the Bazan Group to lead the transition to green polymers and support transition to a low-carbon economy.

The Group has set an ambitious target of 15% in green polymers of its total polymer sales by 2025 and 30% by 2030.



Hydrogen and alternative fuels

The Bazan Group will be a leading player in Israel's hydrogen sector and will operate in the field of alternative fuels.

The Group has set the goal of leading the market in hydrogen for transportation and manufacturing in Israel, while reducing its carbon footprint, supplying alternative fuels, and investing in innovation and entrepreneurship in this field.

Further to its activity in this area in 2022, the first hydrogen-powered fuel station for heavy vehicles was inaugurated in northern Israel in the first half of 2023. This project is the result of collaboration with Sonol and Colmobil. The Group launched its hydrogen activity in 2020, with investments and collaborations with industry leaders for commercial production and delivery of grey hydrogen for industry and transportation, and laying the ground for the development of the hydrogen market in Israel. We also began to initiate and promote projects for commercial production and supply of hydrogen.



ESG - Environmental, Social and Corporate Governance

The Bazan Group is committed to ESG principles and is working to embed these principles in its operations, creating environmental and social value for all of its stakeholders.

The Bazan Group is committed to the implementation of ESG principles and to embedding these principles across all its areas of activity and in its ongoing work. The Bazan Group's commitment to these principles forms the overarching organizational guideline for its operations.

Milestones and focus areas have been established accordingly, within a dedicated ESG strategy, and used to derive a multi-annual work plan. The organization's ESG activities are conducted in synergy with the Group's vision, values, and organizational and business strategy, by implementing leading practices in this field, and preparing to respond to evolving market trends.

Implementation of the strategic plan



Fuels and infrastructures



Green polymers



Hydrogen and alternative fuels



ESG

Objectives

- A diversified product offering, prioritizing environmental needs and adapted to evolving market needs
 - Advanced logistical infrastructures and trade capabilities, to ensure the continuity of supply to the Israeli market
 - Implementation of advanced technologies in production
 - Improving core activity performance while reducing carbon footprint
 - Enhancing distribution and storage capabilities
- Strengthening leadership in the polymer market in Israel, while delivering a diverse range of products
 - Leading the transformation in recycling of plastics and polymers with a lower carbon footprint in Israel, and expanding these activities in Western Europe through Ducor and in the Israeli polymer market
- Leading the market in hydrogen for transportation and industry in Israel; production, marketing, and distribution of grey, blue, and green hydrogen
 - A major supplier of alternative fuels in Israel
 - Leading innovation and entrepreneurship in the local business and professional environment
 - Developments in the market and regulations
- Responding to developing trends – global and local
 - Embedding ESG principles in our business operations and organizational culture, in line with the Group's strategy
 - Setting goals based on sustainability and support for the Group's business strategy
 - Building the right organizational infrastructures to promote the Company's objectives, in accordance with its vision and strategy
 - Increasing transparency and strengthening relationships with stakeholders

Execution

- Engagement with technology companies specializing in big-data analysis and AI solutions for forecasting production malfunctions
 - Developing green diesel fuel produced from used cooking oil at the Group's facilities, and receiving [ISCC](#) certification
 - Examining collaborations and new technologies to allow production of sustainable aviation fuels (SAF)
- Examining investments, mergers, acquisitions, and collaborations to expand the product mix and improve the value proposition for customers
 - Acquisition of control of VPM, which specializes in recycling post-industrial plastic scrap. VPM recycles approximately 12,000 tons of polymers per year. The acquisition provides an important foothold in the mechanical recycling space
 - Signing a memorandum of understanding with Veridis for a collaboration to build a plastic waste sorting, washing, and crushing plant, to ensure a source of plastic waste for mechanical recycling operations
 - A range of collaborations to purchase organic waste, which is integrated with Carmel Olefins products to attain high-quality green polymers
 - Expansion of the investment in Melodea (biopolymers), and signing a commercial agreement for joint product development and distribution
 - Development of recycled products in accordance with customer needs
 - Examination of investments in mechanical and chemical recycling companies through Ducor
- Preparation of infrastructure for compression and transport of grey hydrogen, to be sold for transportation
 - Opening the first hydrogen-powered fuel station in Israel, at Kibbutz Yagur, in the first half of 2023, in collaboration with Sonol and Colmobil
 - Promoting agreements and collaborations to establish pilot projects and facilities for green hydrogen production; working with the Israel Standards Institution to formulate a standard for hydrogen in transportation
 - Receipt of grants from the Ministry of Energy for the purchase of hydrogen-fueled heavy vehicles, such as trucks and buses
 - Win of a Ministry of Energy grant for a pioneering project to build infrastructure for marketing of hydrogen in transportation
- ESG governance - Regulation of ESG Governance:**
- Supervision of ESG management by the board of directors
 - Establishment of an ESG function for the Group, working through organized interfaces with Group departments
 - Mapping of ESG and climate risks
- ESG Reporting**
- Annual ESG reporting in accordance with global standards
 - Reporting on material topics
- Climate**
- Formulating a long-term plan to reduce the Group's carbon emissions
 - Mapping climate risks based on prevalent risk-management methodologies
- Social and community investments**
- Social investment activity aligned with the UN SDGs

~ 250 million USD - total monetary investment in the plan, 2022-2030

Our Impact – ESG – Key Figures



90%

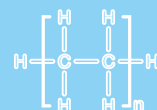
Reduction of benzene
emissions in 2016-2022



ESG function established

30%

Target for green
polymer production
by 2030



15%

Decrease in quantity
of hazardous waste
compared with 2021



40%

Women in senior
management in 2022



20%

Decrease in total
water consumption
from 2016-2022

44%

Of water consumed
by the organization
was sourced from
wastewater in 2022

Monitoring and reporting of GHG emissions completed – Scopes 1, 2, and 3*

* In the course of 2022, monitoring of greenhouse-gas emissions was completed by the global company DNV, within the Group's climate policy.

The Bazan Group is working to promote the United Nations' Sustainable Development Goals (SDGs)

Main SDGs we supported in the reported years:



Gender Equality

Act to ensure gender equality in the business sector and in the community

The Bazan Group takes pride in the significant presence of women in its senior management ranks, and in the representation of women across all of its departments and in the various managerial roles, including in the areas of manufacturing, innovation, and R&D. As of 2022, 6 of 15 members of management at Bazan are women. The Company set a goal of 40% representation of women in senior management by 2024 and has met it in 2022.



Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation

Over the last few years, we have worked to reduce water consumption at the Bazan Group, optimize water quality, and reclaim significant quantities of wastewater, leading to savings in the use of potable water in the State of Israel. In recent years, Bazan has implemented a significant process of transition to massive use of reclaimed wastewater, reducing the usage of potable water. The industrial effluent reclamation facility led to savings of approximately 2.5 million cubic meters of water per year in the Israeli economy (equivalent to consumption by approximately 40,000 residents). From 2016 to 2022, the Group's overall water consumption decreased by approximately 20%.



Affordable and Clean Energy

Promote the availability of sustainable energy sources

Encouraging the use of hydrogen-based energy, with the development of hydrogen-based solutions, is one of the four elements of the Group's strategic plan. Bazan has taken a leading role in the hydrogen industry in Israel. In May 2023, in collaboration with Sonol and Colmobil, Bazan inaugurated the first hydrogen-powered fuel station in Israel. In 2022, the Group was recertified under the new guidelines for the ISO 50001 Energy Systems Management Standard.

Decent Work and Economic Growth



Promoting economic growth and creating a safe and productive work environment

Fair business conduct - The Group operates according to a code of ethics aimed at ensuring fairness in business and adherence to ethical principles. In 2022, the Group formulated an ethics annex for its engagements with suppliers, emphasizing topics such as human rights, employment terms, and more. The Group is currently in the process of implementing the annex, targeting completion with material suppliers by the end of 2023. Impact on economic growth – Bazan's overall contribution to the Israeli economy in 2022 is estimated at approximately NIS 8 billion, or approximately 0.45% of Israel's GDP. In terms of direct contribution, the Group accounts for approximately 1.9% of the industrial product in Israel, approximately 18% of the industrial product in the district of Haifa, and approximately 54% of the industrial product in the city of Haifa. Bazan has approximately 1,400 direct employees in Israel; the Group's overall (direct and indirect) contribution is estimated at approximately 16,300 jobs, mostly in northern Israel.



Industry, Innovation, and Infrastructure

Build resilient infrastructure, promote inclusive industrialization, and foster innovation

Reinforcing the leadership of Bazan in the transportation fuel market in Israel, as part of its strategy, through digitization, embedding advanced technologies in production, innovation, and continued reduction of the environmental impacts of the Group's operations, while continually adapting to market changes, as well as upgrading and expanding advanced logistical infrastructures and trade capabilities in order to ensure the continuity of supply for the Israeli economy.



Responsible Consumption and Production

Manage business systems with responsibility towards natural resources

The Group is committed to being part of the comprehensive solution to the problem of waste, with an emphasis on plastic waste in Israel. Extensive resources are devoted to research and development in this field, including the production of polymers with a lower environmental impact, through the R&D Unit at Carmel Olefins. The Group has set a target of 15% green polymers of its total polymer sales by 2025 and 30% by 2030. As part of the promotion of the strategic plan in the area of waste recycling in 2022, the Group acquired control of VPM, and signed a memorandum of understanding with Veridis for a collaboration to build a waste sorting, washing, and crushing plant.



Climate Change







Take action to combat climate change and its impacts.

The Group has set a goal of forming a long-term climate plan. Scope 1, 2, and 3 emissions were monitored over the last year to provide a baseline for long-term targets. A process was also conducted to map climate risks. The Group invests in the development of technologies for the reduction of greenhouse gas emissions. As part of its activity with the Environmental Sustainability Innovation Lab (ESIL), the Company has invested in start-up companies, including H2Pro, developer of innovative technology for the production of green hydrogen through electrolysis – separation of water into hydrogen and oxygen without the emission of greenhouse gases. Bazan is among the refineries with lowest emissions compared to peer companies in Europe.

In 2023, the Group fine-tuned its policy on community support and engagement, in alignment with the SDGs. For more extensive information, see the section "Committed to society and the community".








Objectives

Category	Topic	Objective	Target year	status 2022
Environmental protection	Benzene reduction	Reduce benzene emissions by 66% relative to 2018, from 2.2 tons to 0.75 tons	2024	Achieved. Emissions reduced by 84% compared with 2018, to 0.35 tons , one of the lowest rates in the world 
	Pollutant emissions	Maintain the Company's positioning in the 15 th percentile of companies with the lowest environmental impact, based on the European BREF*	2023	Achieved. Bazan is in the 10 th percentile 
		Updated target: Improve to the 10 th percentile of companies with the lowest environmental impact, based on the European BREF*	2024	In process 
Employee safety	Number of work accidents - IR**	IR - 0.5	2025	1.49 IR 
Ethics and supply chain	Ethics appendix for suppliers	Implementing an ethics appendix in the process of contracting material suppliers	2023	The annex will be implemented in the second half of 2023 
Circular economy	Green polymer production	Produce at least 15% green polymers by 2025 and 30% by 2030***	2030	In process Acquisition of control of VPM Group, which specializes in industrial waste recycling 

* Refining of Mineral Oil and Gas BREF

** Weighted number of accidents per 200,000 hours of work.

*** Green polymers – recycled, biodegradable, and from renewable sources.

Category	Topic	Objective	Target year	status 2022
Climate Change	Climate plan	Formulate a long-term climate plan	2023-Q1 2024	Completed monitoring of scopes 1, 2 and 3. A plan for Docur will be completed by the end of 2023; Plan for the Haifa site - first quarter 2024. 
	Greenhouse-gas emissions	Take action to reduce emissions by 25,000 tons	2024	Achieved. An agreement to purchase green electricity was signed in 2023, which will lead to reduced emissions in accordance with the target. 
Diversity	Women in senior management	40% women in senior management	2023	Achieved 40% women in senior management 
	People with disabilities	Promote activities for the inclusion of people with disabilities in the Group	2024	The Company has contracted with an expert organization and started to promote this issue 
Society and the Community	Society and the Community	New target: Formulate a policy for community donations and support, in accordance with the UN SDGs, and match the amount donated to the global benchmark	2025	In process 

Material topics reviewed in the report

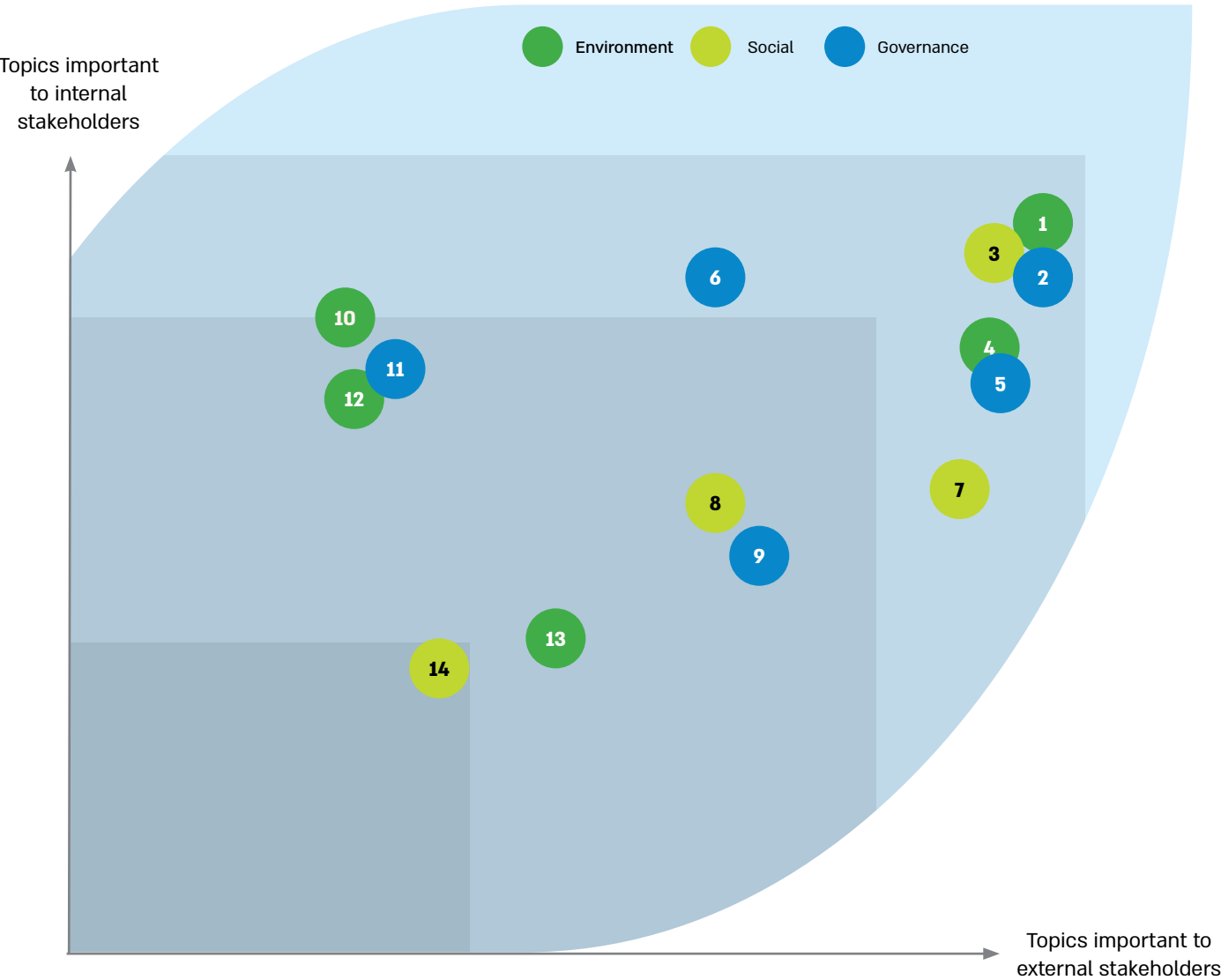
The topics reviewed in this report emerged as important to the activity of the Group in a materiality analysis performed in collaboration with internal and external stakeholders. The process was guided by a team from a global consulting firm specializing in ESG. This process included a review of the topics reported in the previous report, methodological examination of the topics and renewed consideration with stakeholders, and prioritization and rating to identify the topics material for the Group, from a broad perspective.

The identification of the topics encompassed external reference points based on sector-specific and general industry players; mapping of intra-organizational and

external stakeholders, and dialogue with them to rank identified topics; and finally, rating based on the information elicited from the stakeholders.

Stakeholders who took part in the process include managers and employees in the Group; representatives of the business, industrial, and financial sectors; and members of the Group's value chain. The extensive participatory process granted us a deeper understanding of the way the material topics are perceived, and helped us focus the content in this report. The scope of this report goes beyond the list of material topics, to create as broad a platform as possible for sharing and reporting.

Bazan materiality table





Mark Schon,
Head of Communication and Government Affairs

“The strategic change in the Group must be rooted first and foremost in a transformation of consciousness, internally and externally.

Shaping and tuning the Group's identity during an era of change, with concrete actions and trust-building with all of its stakeholders in connection with these processes, are essential components of its success in building a bridge to the future.”

-  Environment
-  Social
-  Governance

Number	Topic
1	Air pollution and emission of pollutants
2	Compliance with the law
3	Occupational Health and Safety
4	Greenhouse-gas emissions and energy efficiency
5	Risk and crisis management
6	Ethics, transparency, and messaging
7	Human capital

Number	Topic
8	Human Rights
9	Protecting energy security
10	Waste Management
11	Sustainable Procurement
12	Adaptation and resilience to climate change
13	Circular economy
14	Diversity and inclusion

Dialogue with Stakeholders

We accord high importance to continuous, open communication with our stakeholders. This constant dialogue helps us gain a deeper understanding of the needs and expectations relevant to the Group's daily work.

The last year was marked by extensive activity aimed at promoting Bazan's strategy, while ensuring that our stakeholders were involved and continually examining the value we create for them. This year, we expanded our ESG reporting, applied materiality analysis to the reported topics, and worked to improve our relationships with our stakeholders.

The materiality analysis process enabled us to engage with the Group's stakeholders and learn about their positions regarding important topics for reporting and action. Insights drawn from this process are reflected in the report.



Stakeholder group	Communication channels
Customers	<p>Bazan leverages its position as a smaller player in the global market to deliver quick, professional, quality service to its customers, in line with changing market conditions and regulation.</p> <p>We maintain continuous, rapid, efficient communication with our customers and ensure high accessibility of information, through an up-to-date website and frequent measurements of customer satisfaction, including an annual customer survey.</p>
Employees	<p>We see open dialogue with Group employees as a key value. This approach is reflected in our open-door policy for employees, employee representation, round-table meetings, organizational portal, and employee events.</p>
Investors and financing entities	<p>We maintain ongoing, close communications in full transparency with our investors and with lenders and financing entities.</p>
Community	<p>We ensure that information about the Group's ongoing activities is accessible, including through routine messaging and updates on the Group's website, which are available to the general public, in Hebrew and English.</p>
Suppliers	<p>Transparency and dialogue with a broad range of suppliers and subcontractors, through the purchasing and engagement mechanisms in our supply chain, among other means.</p>
Regulators	<p>Dialogue is conducted through Group management and through Company functions responsible for areas of activity including protection of the environment, health and safety, and security.</p>
Emergency responders	<p>Dialogue with the various emergency and security organizations.</p>

Mark Hana,
VP Marketing and Sales

“As a leading group in the energy sector, we maintain close contact with our customers, with the aim of meeting all of the economy's needs, while rigorously upholding standards of service, quality, and reliability.”

24/7 monitoring and continuous communication with the public

Environmental hotline 24/7

The environmental hotline, established in 2018, provides a channel for the public to contact the Group in the event of an environmental incident, and for inquiries into the Group's environmental impacts. The hotline can be reached through a telephone number accessible to the public.

Upon receipt of an application, it is forwarded to the environmental quality department, which establishes contact with the applicant and ascertains the details of the complaint. Each complaint is examined in front of the relevant professional authorities and treated accordingly, if necessary.

Fence-top monitoring on the Group's website

Since the beginning of 2022, the Group has posted the data collected from monitoring devices placed on the fence of its factory compound on a dedicated publicly

accessible website. This is one of the ways in which Bazan is realizing its goal of full transparency towards the public. The broadcast can be viewed live on the Group's website, 24 hours a day.

Releasing information on exceptional events

We ensure that information is provided in real time regarding exceptional events, when they occur. This information is released through the Group's website, through the Group's Facebook page, reports to local media, and notifications to municipal contact centers, among other means.



Committed to the environment

The first hydrogen-powered fuel station in Israel launched, in collaboration with Sonol and Colmobil

Circular economy – acquisition of control of VPM completed, for waste recycling

Greenhouse-gas emissions monitoring project completed – Scopes 1, 2, and 3 – ahead of formulation of a plan for reduction of carbon emissions

Potable water use decreased by 18% from 2021 to 2022

Quantity of waste generated reduced by 44% compared with 2021



Reduction of air pollutant emissions*

Organizational mission

To comply with the requirements of the permits and strict standards, and receive alerts of malfunctions in real time, the Group operates advanced systems for the reduction of air pollutant emissions at its production facilities, as well as a sophisticated monitoring system surrounding its plants. The monitoring system provides the Group with a basis for continual improvement in reducing the emission of pollutants into the air.

Bazan also applies rigorous comprehensive maintenance to its facilities on a regular basis. Two renovations were performed in 2022: at Carmel Olefins, the work was part of the annual maintenance of the facilities, to ensure that they continue to operate correctly in the coming years; in addition, extensive renovations were carried out at the fluid catalytic cracker (FCC) in the refinery, with devices upgraded to new technologies.

Air quality is monitored using several indicators, based on the concentration of various substances in the air, primarily the following:

- Benzene (C₆H₆)
- Non-methane volatile organic compounds (NMVOCs)
- Sulfur oxides (SO_x)
- Nitrogen oxides (NO_x)
- Suspended particulate matter (SPM).

Despite an increase in volume of refining operations by approximately 20% year-on-year, due to full activities resumed after the COVID-19 period, we are seeing a double-digit percentage decrease in emissions per ton refined compared with 2021. This decrease resulted from actions taken by the Company over the course of 2021, including the addition of reduction means, replacement of devices to attain lower specific emissions, and continued adherence to the LDAR (leak detection and repair) procedure.

Last year's ESG report, which described the reported years 2019-2021, set a target for emissions of pollutants: reaching the 15th percentile of refineries with the lowest environmental impact in Europe.

* In this report, data for Ducor are presented from 2022 forward.

This goal has been achieved; in the current reporting year, we are raising the bar and setting a new target of positioning Bazan in the 10th percentile of refineries with lowest environmental impact in Europe, based on the European reference document on environmental regulation of the refining industry – the BREF for Refining (Mineral Oil and Gas), by 2024.

The Pollutant Release and Transfer Register (PRTR) Report of the Ministry of Environmental Protection for 2018 reveals that emissions of nitrogen oxides at refineries in Israel are similar to the average level in Europe, emissions of sulfur oxides are low compared with emissions in Europe, and emissions of NMVOCs and benzene in Israel are among the lowest of the countries examined. This trend has been maintained, based on a comparison of emissions from refineries in Israel to those of refineries in Europe, adjusted according to the quantity of crude oil refined and the complexity of the refining process (the Nelson Complexity Index), according to analyses performed for the Group in 2019 and 2021 by the global firm DHV Royal Haskoning.

Quantities of the principal pollutants were **reduced at double-digit rates** from 2016 to 2022

Benzene (C₆H₆)

Benzene emissions cut back by approximately **90%** from 2016 to 2022

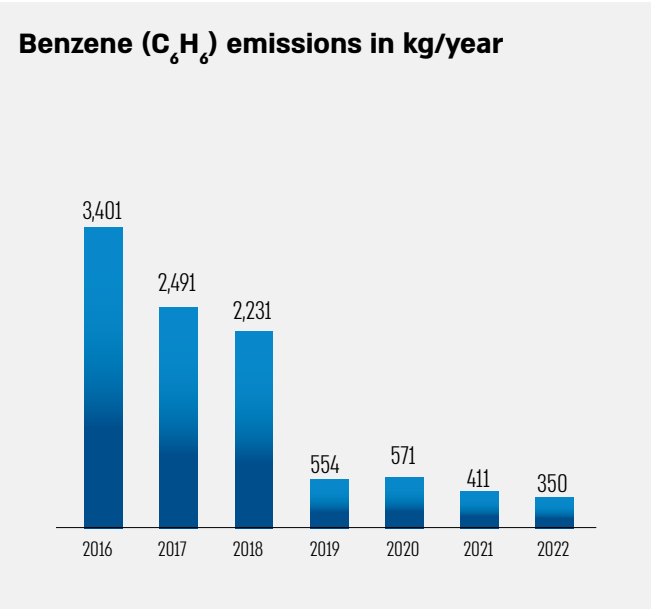
Benzene arrives at the Bazan refinery as a part of the crude oil, and is also generated by various production processes, including in the continuous catalytic reformer, the naphtha cracker facility for ethylene production, and the Gadiv facilities.

This organic compound is a basic and important ingredient in manufacturing processes of pharmaceuticals, plastics, synthetic fibers, cleaning detergents, and pesticides. Exposure to a high concentration of the substance may affect human health.

One of Bazan's key goals is to reduce benzene emissions in its production process. In the report it issued in 2018, the Group set a target of reducing benzene emissions from approximately 2,200 kg to approximately 750 kg by 2024.

In practice, this target has already been achieved, in 2019; emissions in 2022 were still lower, at 350 kg, a decrease of approximately 15% relative to the benzene emissions documented in 2021, and a decrease of approximately 90% from 3,400 kg in 2016.

This is the direct result of continuous, intensive measures taken by the Group, grounded in its deep commitment to responsible environmental conduct.



** Ducor has 0 benzene emissions.

Measures we took to reduce benzene emissions

Switching to equipment components with higher impermeability (zero emission or high integrity)

- Proactive replacement of equipment components, including replacement of old taps with new low-emission or ultra-low-emission taps.
- Proactive replacement of controller valves
- Diffuse leak detection and repair (LDAR) activities

Activity pertaining to storage containers

- Installation of means of reducing emissions into the air from storage containers, such as secondary and tertiary seals, guide pillar seals, and sealing devices for container roof legs
- Installation of domes for storage containers with an external floating roof, to reduce the effect of hydrocarbon drift due to wind
- Upgrade of container draining systems to closed systems

Addition of secondary environmental systems to treat emissions

- TO facilities for the reduction of emissions from ecological treatment systems
- VRU for the reduction of emission during loading of tankers
- RTO for the reduction of emissions from a bitumen facility
- CTO at Carmel Olefins for the reduction of emissions from storage tanks

Additional measures

- Operational changes to reduce the quantity of stored Pygas – a mixture of gases, half of which is benzene, generated in the production process at Carmel Olefins. As part of the synergy between the plants (see Chapter 1), the mixture is sent to Gadiv to be used as feedstock, while the benzene is separated and sold as a product, with the remaining components reused by the refinery.

Non-methane volatile organic compounds (NMVOCs)

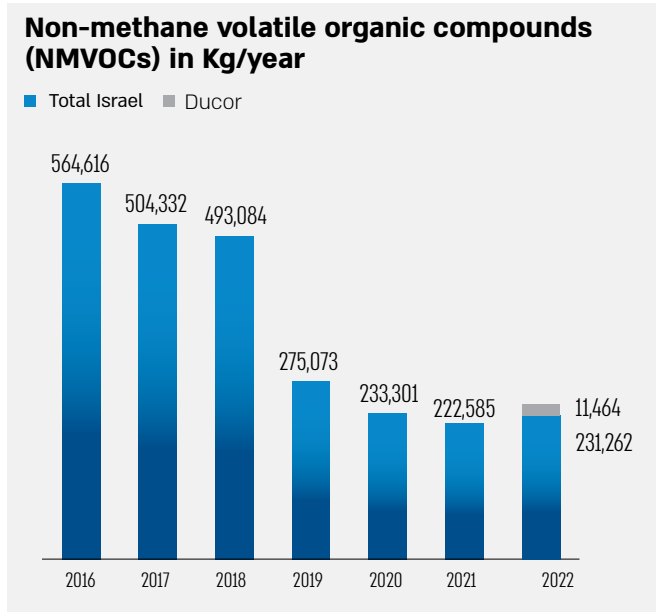
A 57% decrease from 2016 to 2022*

More than half a million components are present at the Group's plants, regularly monitored by an expert team using dedicated equipment to detect and immediately repair minute leaks.

From 2021 to 2022, emissions of these pollutants at the Group's facilities in Israel increased by 4%. However, a multi-annual perspective shows that we have succeeded in significantly reducing this type of emissions, despite growth in production. We expect the overall downward trend in emissions of non-methane volatile organic compounds to be maintained in the future.

How we contributed to reducing emissions of NMVOCs over the years:

- Stringent control over the execution of leak detection and repair (LDAR) plans for equipment components
- Rapid treatment and mitigation of detected leaks
- Installation of means of addressing air emissions from storage containers (seals, socks, guide pillar seal, and more)
- Installation of a coal bitumen treatment system – an RTO device operated in 2022 replaced the coal filter

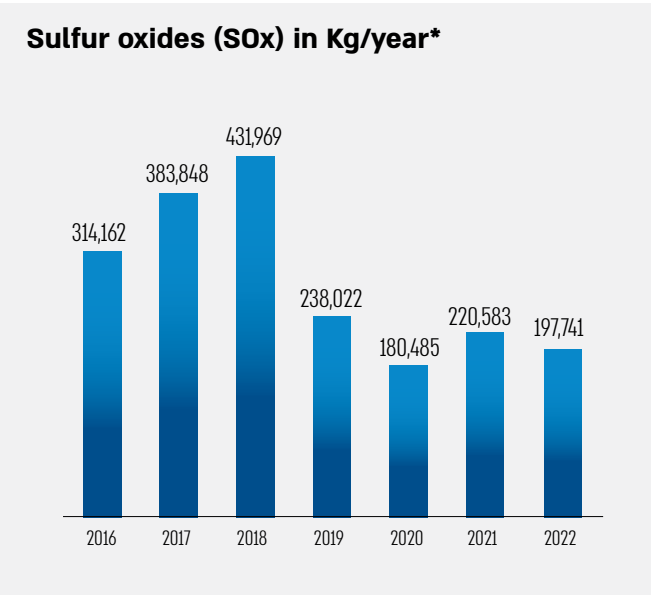


* In this report, data for Ducor are presented from 2022 forward.

Sulfur oxides (SOx)

A 37% decrease from 2016 to 2022

As part of Bazan's preparations for IMO 2020, the concentration of sulfur in fuel gas used in the Group's refinery decreased



* SOx emissions at Ducor are 0

Sulfur oxide emissions decreased by 10% from 2021 to 2022.

Reducing SOx throughout the supply chain

As of 2020, Bazan has produced fuel oil compliant with the IMO 2020 standard; accordingly, the sulfur concentration has been reduced from 3.5% to 0.5%. The fuel oil is primarily used as fuel for ships. SOx emissions into the air result from burning of the fuel oil by the vessels' engines. The reduced sulfur concentration in the fuel allows sulfur oxide emissions to be reduced by approximately 85%, in relative terms.

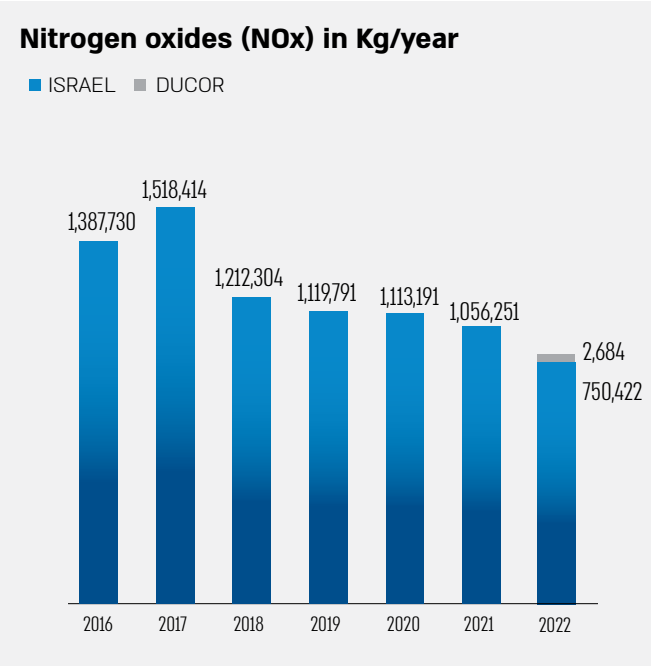
Nitrogen oxides (NOx)

A 33% decrease in Israel from 2016 to 2022

Emissions of these pollutants in Israel decreased by 12% from 2021 to 2022.

This reduction resulted from the following measures:

- Installation of flue gas recirculation (FGR) systems to reduce emissions of nitrogen oxides in steam vats
- Replacement of burner systems with ultra-low NOx burners
- Establishment of a dedicated team to calibrate burners, in order to maintain combustion conditions that reduce emissions



The fence-top monitoring system at the plants

A fence-top UV-DOAS system continuously monitors the concentration of BTEX (benzene, toluene, ethylbenzene, and xylene) in the air, in four different zones: the northeastern face of the container farm fence, the northwestern face of the Gadiv plant fence, the southwestern face along the ecology area, and the additional area along the northwestern fence.

The benzene detection system at Bazan is the first in the world to be certified under the ISO 17025 standard

The system is designed to provide maximum precision in monitoring emissions into the air, and allow real-time response. Its main advantage is its location in close proximity to the plants. The system operates throughout the day; all of its data are available to the public in real time, with full transparency.

For further information regarding the monitoring system and its capabilities, visit our [website](#).



Energy and climate

Leading the hydrogen revolution in Israel

Hydrogen is considered a clean energy source with significant potential to replace polluting sources, particularly in the area of transportation fuels. Bazan has taken a leading role in the hydrogen industry in Israel. In May 2023, in collaboration with Sonol and Colmobil, Bazan inaugurated the first hydrogen-powered fuel station in Israel.

The first hydrogen-powered fuel station in Israel opened in 2023 – the Bazan Group, Sonol, and the auto importer Colmobil formed a first-of-its-kind collaboration in which Bazan produces hydrogen, Sonol builds fueling stations, and Colmobil supplies trucks, manufactured by Hyundai. At this stage, the hydrogen is generated using natural gas ("grey hydrogen"); later, the plan is to switch to green hydrogen made using renewable energies. Grey hydrogen production already has clear advantages over the comparable production of power for electrical propulsion, as it creates less greenhouse-gas pollution and has higher energy density than electrical batteries, an especially significant benefit in solutions for heavy vehicles such as trucks.

Over the last year, the first and only hydrogen laboratory in Israel was established at Bazan, as one of the key elements of the implementation of the Group's strategy of developing hydrogen-based solutions. The lab is designed to detect hydrogen quality by testing parameters; it is equipped with the best devices in this field and has attained all of the certifications required for its routine operations.

Hydrogen-based transportation – In November 2021, Bazan won a call for proposals of the Ministry of Energy, through which it obtained financing to purchase hydrogen-fueled vehicles including trucks, buses, and forklifts. The Group purchased a truck in 2022, and is continuing this activity.

Within the implementation of this strategy, the Group invests in the promotion of new technologies to help make hydrogen a readily available, accessible energy source for a variety of needs, with emphasis on transportation.

For further information regarding future investments by the Group, see the review of the Group's strategy in Chapter ["Introducing Bazan group"](#).



Bazan intends to invest a total of up to **50 million USD** in this field by 2030.



Shlomi Basson,
Deputy CEO and VP Safety,
Security, Environment,
Procurement, and Engagements



Bazan is at the forefront of innovation in the field of hydrogen in Israel, and promotes the use of green fuels in transportation and industry. This year, we inaugurated the first hydrogen-powered fuel station for trucks in Israel, in a successful collaboration between Bazan, Sonol, and Colmobil; we are proud of this accomplishment and of its positive impact on the economy.

The hydrogen laboratory we founded this year is helping to improve research and standardization of hydrogen-based technologies for the market.



Intra-organizational initiatives and collaborations

- **Hydrogen transport compression system** – In late 2020, Bazan won a Ministry of Energy tender to set up a system of equipment to market hydrogen for transportation. Hydrogen-fueled vehicles have a clear environmental advantage over those fueled by gasoline or natural gas, thanks to the electrochemical process in which electricity is generated and stored in the battery powering the vehicle. The only byproduct of these engines is a small quantity of water droplets released into the air.
- **Bazan has surplus production capability and has the capacity to provide a supply beyond the market's needs.** The quantity produced per hour varies according to the composition of raw materials. The system enables the Company to develop pioneering capabilities to produce, compress, and transport hydrogen at a quality level aligned with Israel's transportation needs. This would provide a solution enabling the import of hydrogen-fueled vehicles to Israel to promote clean transportation.

Investments in external companies

In 2020, the Bazan Group invested in H2Pro, developer of innovative technology for the production of green hydrogen through electrolysis – separation of water into hydrogen and oxygen without the emission of greenhouse gases, with 30% higher energy efficiency than other methods. In addition to investment, the Bazan Group has commercial agreements with the company regarding collaboration.

Bazan is mobilizing to fight the climate crisis

As a key player in the Israeli energy market, we are aware of the Bazan Group's important role in the broad effort to cope with climate and environment issues, and its capacity to stimulate large-scale change in its business environment.

The Bazan Group's strategy is founded on four pillars: hydrogen, green polymers, fuels and infrastructures, and ESG. The Group's work is oriented to sustainability and to embedding innovation and technological solutions aimed at reaching its goals. In the ESG report for reporting years 2019-2021, we made a commitment to formulate a climate plan; our goal was to work towards initial reduction of carbon emissions, while concurrently creating a long-term

climate plan for the Group.

Over the last year, a greenhouse-gas emissions calculation process was carried out with the global experts DNV, based on data for 2021, in line with the GHG Protocol and ISO 14067 on product carbon footprint.

The Group is working to formulate a long-term climate plan, focused on reducing carbon emissions.

In 2023, the Bazan Group signed an agreement to purchase electricity, for a ten-year period beginning in July 2023. Under the agreement, the energy company OPC will supply Bazan with electricity from renewable energy sources, at a capacity of approximately 50 megawatts, in phases beginning January 2025.

Monitoring GHG emissions in advance of the reduction plan

The Group is currently forming its plan to cut back carbon emissions. Data on Scope 1 and 2 emissions have been voluntarily reported to the Ministry of Environmental Protection since 2010.

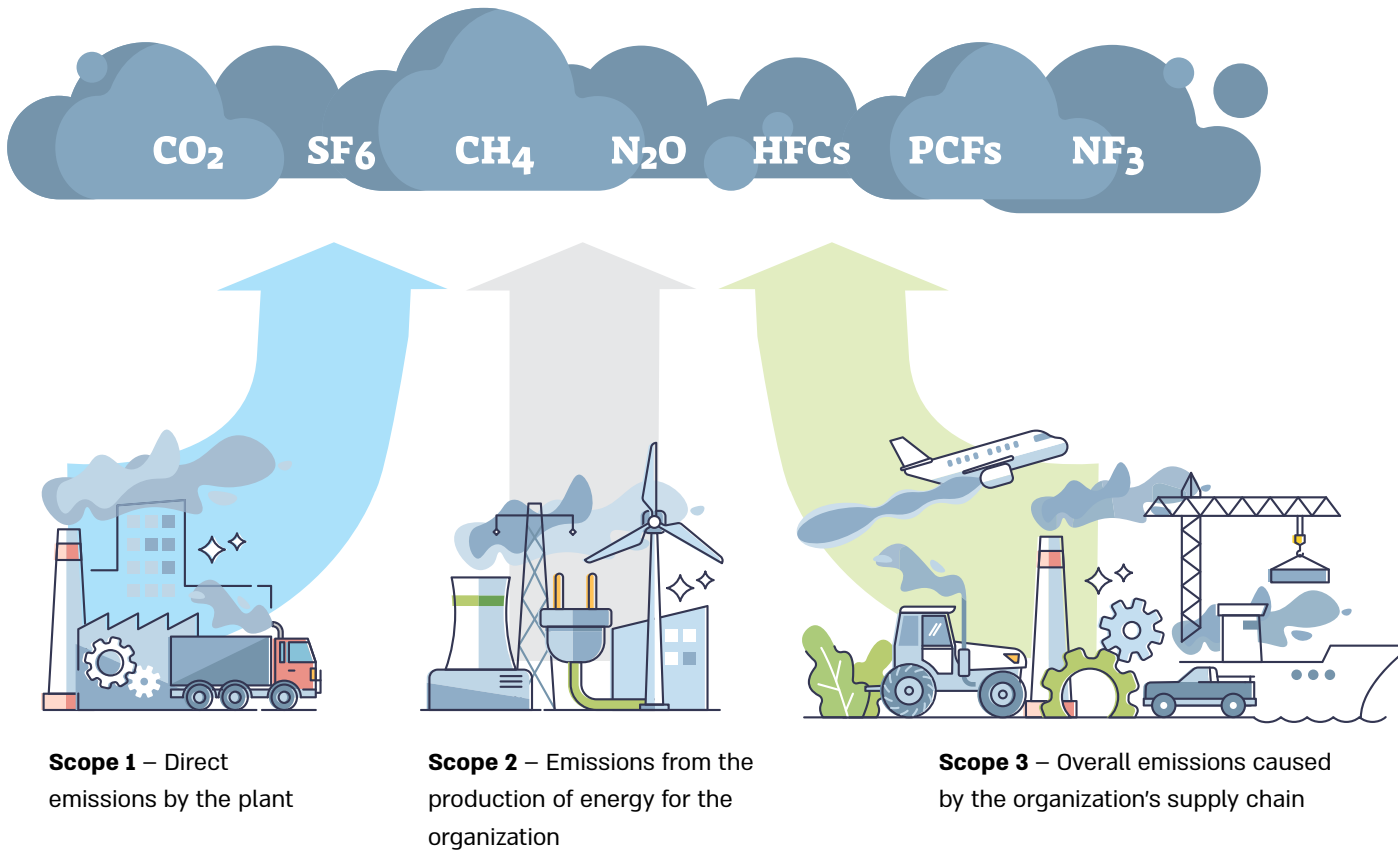
Over the last year, a comprehensive process was conducted by a global firm specializing in environmental issues to calculate the GHG emissions of the Bazan Group. Within this process, Scope 3 emissions were reported this year, in addition to Scope 1 and 2 emissions, which have been voluntarily reported to the Ministry of Environmental Protection since 2010. This step was taken based on the Group's approach to its responsibility, and as part of the infrastructures being built for the plan to reduce GHG emissions. Similar surveys were performed at Ducor and VPM.

The findings of the report indicate that **Scope 1 emissions** – direct GHG emissions – account for approximately 26% of total emissions. These emissions result from the production of energy needed for heating, production processes, steam production, electricity produced for internal consumption via cogeneration, and catalytic reformer processes.

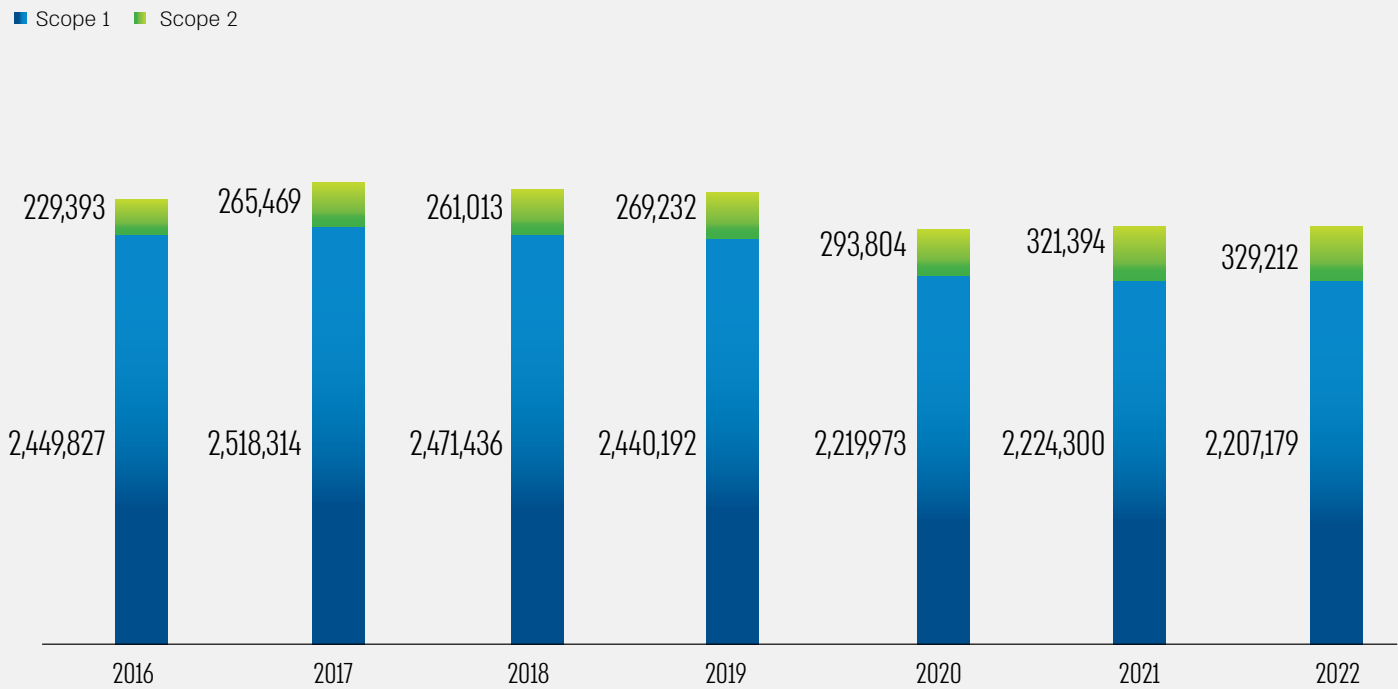
From 2021 to 2022, Scope 1 emissions decreased by approximately 1% due to renovations at Carmel Olefins.

Scope 2 emissions – indirect GHG emissions due to the use of energy – account for approximately 4% of total emissions. These emissions originate with the use of electricity, mostly generated from natural gas through OPC. The Group uses electricity primarily to power motors, process-related compressors, air compressors, air coolers, and other process-related equipment. From 2021 to 2022, a decrease of approximately 14% was recorded in the Group's operations in Israel, due to planned periodic renovations at Carmel Olefins. However, as a result of the addition of data from the operations of Ducor to the total emissions, the Group's Scope 2 emissions increased by approximately 2%.

Scope 3 emissions – indirect emissions arising from the Group's activities throughout the supply chain – constitute approximately 70% of its total emissions. This year, we are reporting upstream emissions from our supply-chain for the first time, well to gate. 98.8% of Scope 3 emissions originate with the process of sourcing crude oil for production processes: the remainder stems from procuring chemicals, procuring natural gas, disposing of waste, etc.



GHG emissions - Scopes 1 and 2 (tons CO₂e)*



* GHG emissions from Ducor operations are reported for the first time as of 2022.

Expanded reporting – an important step towards comprehensive GHG reduction, for the Company and its customers

The expansion of reporting to encompass Scope 3 emissions has several significant benefits for the Group and its stakeholders.

First, there is an internal advantage for the organization. The first step towards work plans and objectives is monitoring and management. Mapping overall emissions

is an important milestone for us. For our customers, our measurements allow better mapping of their own activities that include the use of our products. As of 2022, we offer life-cycle assessments of product groups on demand. This enables our customers to expand their measurements of their emissions and make informed decisions about the use of raw materials.

Greenhouse-gas emissions - 2022

■ Scope 1 ■ Scope 2 ■ Scope 3



* GHG emissions from Ducor operations are reported for the first time as of 2022.
** Scope 3 is reported for the first time in this report, as of 2022.

GHG emissions calculation methodology

The calculation methodology has been improved in the last two years through transition from a method based on specific emission factors, or other factors, to a more accurate calculation method based on measurement of the chemical composition of gases. Bazan monitors and analyzes the quantity of its emissions on a daily basis; transparency is maintained, as a guideline, and annual data are released through the voluntary GHG emissions reporting mechanism of the Ministry of Environmental Protection.

For more information, see: www.sviva.gov.il

Actions to reduce GHG emissions

Development of products with lower carbon footprints

As part of the implementation of our strategy, we promote the development of products with a lower carbon footprint. In 2021, we conducted an experiment in producing green diesel through a process in which used plant-based cooking oil is a component. The production process involves combination of approximately 7% cooking oil with standard diesel, in compliance with Israel Standard 107. Bazan generated diesel fuel using approximately 300 tons of used cooking oil through this process. Based on this experiment, diesel fuel made with used cooking oil can reduce GHG reductions by 87% compared with diesel sourced from fossil fuels. The product has been certified under the ISCC, a standard for the implementation of environmental and ecological criteria under the European Union terms for renewable fuels.

Ducor specializes in the production of polypropylene for use in a wide range of products, such as vehicle parts, medical equipment, electrical appliances, textiles, packaging materials, household goods, and more. We focus on long-term partnerships, working closely with our customers to create customized products. As of 2023, Ducor holds an ISCC Plus certification, enabling it to supply green polypropylene (based on renewable or recycled raw materials, via the mass balance approach).

Purchasing green electricity

A 10-year agreement for the purchase of green electricity, at a maximum volume of 125 megawatt, was signed in May 2023. Under the agreement, Bazan will purchase approximately 50 megawatts of electricity, in phases, beginning in 2025, as well as International Renewable Energy Certificates (IREC) compliant with international standards. Accordingly, approximately 40% of Bazan's estimated average electricity consumption under the agreement will come from green electricity and green certificates.

The green power supply will enable Bazan to achieve its objectives, in several stages. In the first phase, beginning in 2025, Bazan will be able to cut back at least 12.5 thousand tons of CO2. In the second phase, from 2026, Bazan will be able to cut back up to 140 thousand tons of CO2 based on a supply from renewable energy sources in Israel.

Investment in technologies to reduce greenhouse-gas emissions

The Bazan Group is taking proactive measures to fight climate change and promote its policy in this area, including through investment in new technologies designed to reduce GHG emissions. Thus, for example, through ESIL, the Group has invested in the start-up company RepAir, which is developing modular technology for capturing carbon dioxide from the air using a method that can be scaled up at low cost.

The RepAir electrochemical cell operates at ambient temperature and uses only electrical energy for the CO2 separation process, significantly lowering the required energy cost compared with current solutions.



Yariv Gretz
VP - Head of Fuels and Aromatics
Business Unit



As part of the implementation of our strategy, we promote the development of products with a lower carbon footprint. Among other activities, we conducted a pilot project for the production of green diesel fuel with used cooking oil as a component, within the effort to promote the use of green fuels.



Energy management




Our goal is to use energy, like our other resources, with optimal efficiency. Energy efficiency has a key role in our production activities and logistics. We promote an advanced energy management policy, which has led to a significant reduction in the consumption of energy from polluting sources in recent years. The Group has set significant targets for the reduction of energy consumption, including examination of its performance using the Solomon methodology, which allows comparative analysis of performance relative to other refineries around the world. The energy management system encompasses all of the activities of the Company's plants.

Dedicated to energy efficiency

Energy management policy based on ISO 50001

The Bazan Group was certified at the end of 2016. The certification refers to energy management according to globally prevalent work methods and standard international procedures. In 2022, the Group was recertified under the new guidelines for the ISO 50001 Standard for three additional years.

The following are some of the notable processes underway in this area:

- 
 - Transition to natural gas:** to mitigate environmental impacts, natural gas is used for burning. During periods of natural-gas shortages, substitutes such as liquefied petroleum gas (LPG) and others are used.
- 
 - Synergy gases:** synergy gases are process-related gases originating with the refining process – a byproduct used by Carmel Olefins to feed its facilities as part of the synergy between the plants. The gases lead to reduced consumption of fuel and feeding of crude oil to the refineries. The organization uses this gas to the extent possible, leading to savings on natural gas and raw materials for the Group.
- 
 - Recovery of hydrogen from process-related gases:** the recovery of hydrogen generated as a byproduct of refining processes leads to savings on natural gas fed into the hydrogen production facility, energy savings, and reduced atmospheric emissions (particularly of carbon dioxide).



■ **Steam:** The steam production process consumes significant amounts of energy. A daily optimization process is therefore performed to determine the financial precedence for production between steam consumers and electricity consumers within the Group. In addition, optimization is applied to steam production among the Company's steam production facilities (power plants, residual heat tanks, etc.), which also helps reduce emissions and improve the plant's overall energy efficiency. This process involves the various facilities and business units – fuels, polyolefins, and aromatics. In general, the principle is maximum production of steam through cogeneration at the power plant and from residual heat tanks.



■ **Electricity:** Contract with a supplier to purchase electricity generated using natural gas. These measures led to a decrease in the energy intensity of refining operations. In 2018, in collaboration with the global consulting firm Solomon, the Group measured its Energy Intensity Index (EII, a global measure of energy efficiency in refining) at approximately 98. This was a significant decrease from the EII score of 112 in 2008, reflecting a consistent trend of improving energy efficiency at the organization over the last decade. No measurement was performed in 2020, due to the Covid-19 outbreak. The Group participated in the index in 2022; data are expected to be released in 2023.



Limor Pesher Cohen
Vice President of Integrated
Planning and Trade



The optimal mix of raw materials enables the maximization of profitability from their processing in the operational setup in the various group units, as well as the utilization of the intermediate flows between the facilities - so that the by-products of one are used as the raw material of the other and give them a 'second round of life'.

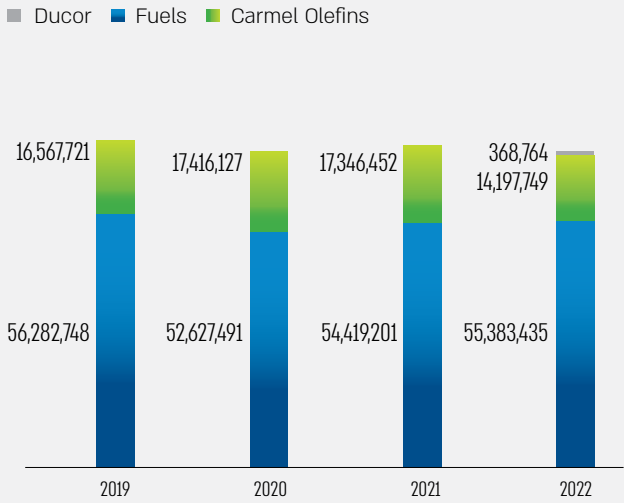


לא מופיע בוויד

Energy measurement at the Group

Energy consumption at the Group totaled approximately 69.9 million gigajoules in 2022, a decrease of approximately 3% compared with 2021. Most of the decrease resulted from improvement in the consumption of natural gas, due to renovations over the last year. Many of the renovation activities, such as system cleaning, treatment, and repairs, contributed to reducing the Group's energy consumption in heat transformers, air coolers, cooling towers, gas compressors, pipe insulation, and steam tanks.

Energy consumption by activity in gigajoule (GJ) per year



Innovation, digitalization and technological solutions

The Bazan Group is committed to investment in innovation, including finding alternative solutions for its core products or ones to improve its current core activities, provide value to the Group, and contribute to the protection of natural resources and the environment.



The innovation function at the Bazan Group

The Bazan Group's innovation function has two main components:

1. BLAB

The channel for activity within the plant. BLAB consists of the **Bteams**, teams composed of 40 Group employees who guide and support innovation in addition to their routine work. The teams are divided into four groups, each responsible for a different area: plastics, advanced fuels, renewable energy, and Industry 4.0.* Innovation activities are focused on external innovation and on promoting pilot projects, collaborations, and investments in ventures outside the organization that are aligned with the Group's innovation strategy.

Promoting start-up companies

Collaborations between Bazan teams and start-up companies are a keystone of the innovation function. The collaborations take the form of joint work with Group laboratories, pilot projects carried out on the plant's premises, and more.

The Group's direct activities with start-up companies, entrepreneurs, and researchers support the creation of a business environment that promotes, develops, and accelerates innovative solutions in the areas of traditional and renewable energies, using an open innovation model.

Focus areas of the innovation function, in accordance with the Group's strategy, are clean energy, energy storage, environmental technologies, fuel substitutes, process digitization, machine learning, and artificial intelligence. In

industrial terms, the areas involved are cyber applications in industry, hydrogen, sustainable plastics, biopolymers, sludge and ground treatment, and plastic recycling. Over the last two years, pilot projects and feasibility tests have been conducted at Bazan with start-up companies for the identification of anomalies, preventive maintenance, optimization of production, monitoring and control, and more.

Finding the right partners

Bazan invests comprehensive efforts in finding start-up companies aligned with the Group's strategy. Alongside its central direct channel, the Group operates through two additional channels: ESIL and the Quantum Hub.

Quantum Hub – Bazan joined this platform in 2022. The Quantum Hub is the outcome of collaboration with several companies in the transportation space: VDL, Kia, and Hyundai. The platform is open to start-up companies in the Israeli ecosystem in the fields of energy, advanced industry, automotive industry, and logistics. Companies admitted to the platform participate in a 13-week program designed to generate and accelerate PoC processes and joint projects by participants.

For further information about the program, see the [Bnnovation](#) website.

2. ESIL



The Bazan Group has partnered with EDF Renewables, of the French energy group EDF, and the British chemicals corporation Johnson Matthey to found the Environmental Sustainability Innovation Lab (ESIL). ESIL invests in start-up companies in the areas of the environment, sustainability, and clean energy, with sponsorship from the Israel Innovation Authority and the Ministry of Environmental Protection. In addition to direct financial investment, ESIL offers start-ups the opportunity to run pilot projects at a range of sites around the world, benefit from close professional mentoring by experts, and connect with potential customers in various countries.

2022 was an exceptional year for ESIL's field. While investments in technological start-ups decreased substantially, technologies relevant to battling climate

change drew greater interest than in the past.

To date, ESIL has invested in ten start-ups from various fields, including pollutant identification, cooling systems, carbon capture, hydrogen storage, energy storage, robotics, and solar paint. One of ESIL's investments is in the Israeli company Repair, which is developing groundbreaking technology for direct air capture of carbon dioxide. Since ESIL's investment the company has completed an additional funding round of 10 million USD from prominent local and global investors.

For further information about the program, see the [ESIL](#) website.



Unique collaborations through Bnnovation

Bazan is working to formulate advanced solutions and expand its range of capabilities in the Industry 4.0 era, through means including deeper collaborations with companies in the fields of artificial intelligence and the IoT, to enhance its routine operations.

■ Augury specializes in predictive maintenance solutions using vibration-based sensors.

The company develops IoT sensors based on artificial intelligence that connect to machines on production lines. The sensors can provide alerts of predicted malfunctions in specific machine parts, with the expected timing and type of malfunction, and give recommendations for maintenance staff. This allows Bazan to avoid prolonged shutdowns and loss of output, and improve maintenance staff's efficiency and productivity and to gain immediate savings on high repair costs. In 2023, a decision was made to expand the scope of the project to hundreds of additional equipment units.

Bazan is also running pilot projects with Seebo, which has merged into Augury. Seebo optimizes production processes through artificial intelligence; it is currently embedded on the Group's premises, for optimization and improvement of process efficiency.

■ Feelit – detecting operational malfunctions through “sensing” ink stickers

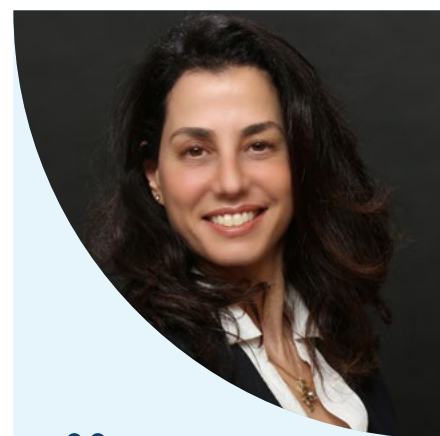
Feelit offers multi-sensing monitoring capabilities for the detection of operational malfunctions through stickers with “sensing” ink. This groundbreaking development from the Technion has been implemented at several of the Group's locations, in close collaboration with the Group's engineers. Following several successful pilot projects, the Bazan Group decided to participate in the company's latest round of funding.

■ Percepto – monitoring systems using drones

Percepto monitors systems by gathering data using a dedicated drone, analyzing images, and providing alerts. The drone leaves the docking station to perform specified tasks and transmits data to a dedicated system. Two successful pilot projects have been conducted on the Group's premises.

■ Greazly – automated greasing system

Greazly has developed an automated greasing system integrated with alert and control capabilities, to prevent facilities from shutting down due to failures in oiling/greasing. The company is beginning a pilot project at Group facilities.



Dr. Gili Bitan
Head of Innovation



Bazan, through the Group's innovation operations, invests extensive and significant resources in promoting advanced technologies as well as academic and applied research in these fields, in collaboration with groundbreaking entrepreneurs, leading researchers, academic institutions, and others in the Israeli ecosystem.



Orly Abramovich
VP IT/OT



As part of Bazan's strategic plan, we are implementing an IT master plan to digitize and streamline work processes. The plan supports realization of Bazan's strategy and ESG principles.



IT and Digital

We are implementing an IT master plan, as a supporting framework for the achievement of Bazan's strategy and as a key pillar of its strategic plan.

The IT master plan applies digitization, automation, and streamlining of work processes through advanced tools such as robotic process automation (RPA), advanced reporting systems based on business intelligence (BI), and forecasting technologies based on artificial intelligence (AI).

The operating model for the IT/OT unit has been adapted to the management of the master plan. Operational Technology (OT) and Information Technology (IT) have been merged into a fully integrated unit, and closer work interfaces have been established between the IT/OT unit and the business and operational units.

Projects in various areas have been implemented within the master plan, including the following:

- **Logistics** – Paperless Storage: significant reduction of the use of paper through the digitization of work processes, including inventory counts using **RFID** technology.

- **Operations, maintenance, and safety** – implementation of a leak detection system; increased use of technological means in field tours; integration of **IoT (Internet of Things)** systems and technologies for the detection and prediction of failures in critical equipment units and preventive treatment; predictive maintenance based on advanced models; and more.
- **Energy – BI project:** examining data on water usage.
- **Staffing and shift management** – automation of work processes in operations at Bazan by creating a uniform standard for shift management methods and transfer of information among shifts, while reducing the use of paper.
- **Cybersecurity** – intensive activity including the implementation of information security and risk management systems and the integration of these systems with the Group's overall risk management.

* * Industry 4.0 is a term that represents a concept for managing factories and industrial processes in combination with advanced and smart technologies for the benefit of streamlining and improving industry capabilities

Water and Effluent treatment

Water is an essential resource with vital importance on the national and global level. Over the last few years, we have worked to reduce water consumption at the Bazan Group, optimize water quality, and reclaim significant quantities of wastewater, leading to savings in the use of potable water in the State of Israel.

Most water consumption at the Group's plants is designated for the production of steam used in hydrogen production processes, and for cooling of production facilities, to ensure the continuity of production processes.

In recent years, Bazan has implemented a significant process of transition to massive use of reclaimed wastewater, reducing the usage of potable water (grid water). This frugal policy makes potable water available for use by the public and the economy.

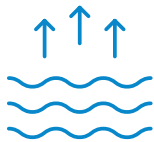
Water consumption management and reduction

The Bazan Group attributes great importance to the treatment of industrial wastewater. Most wastewater generated in the course of production operations are treated at a wastewater treatment plant, and further treated at an industrial wastewater reclamation plant. Some of the treated wastewater is discharged to the cooling towers and used as cooling water in processes. If the industrial effluent reclamation facility is unable to take in additional treated wastewater, the treated wastewater is continuously monitored for water quality, and when the appropriate quality is attained the water is discharged into the Kishon River.



Bazan's water sources

Source	Uses
Mei Carmel (Mekorot)	Feeding water for the RO facility (a reverse osmosis facility that takes in water and emits highly clean water used to produce steam) is used by the Fuels Unit, and for cooling towers, fire safety, drinking water, and sanitation at all of the business units.
Brackish water wells of Bazan	Feeding water for the RO facility at the power plant (for steam production, and feeding water for the hydrogen production facility) in the Fuels Unit
Wastewater reclamation facility (in collaboration with GES)	Feeding water for steam production, feeding water for the RO facility at the Fuels Unit, and an option for supplemental water for cooling towers for the Fuels Unit and Carmel Olefins
Revivim (fertilizers)	Feeding water for steam production, used primarily by Carmel Olefins, but also in steam production at the power plant and at Gadiv facilities.



Brackish water

Brackish water is water with a higher salinity than freshwater, but lower salinity than seawater. Thus, this water is usable in industry.

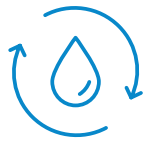
Brackish water use **decreased by 17%** from 2021 to 2022. Brackish water use **decreased by 41%** from 2016 to 2022.



Potable water

High-quality water suitable for drinking.

Potable water use **decreased by 18%** from 2021 to 2022. Potable water use **decreased by 54%** from 2016 to 2022.



Wastewater

Effluents are wastewater that has undergone decontamination processes for reuse. In Israel, this water is mainly used for agricultural purposes; Bazan reuses treated effluents for industrial purposes, in producing steam. Approximately 60% of the effluents are reclaimed, in compliance with requirements regarding discharges of brines into the Kishon River. The significant increase in the use of wastewater contributed to a double-digit percentage decrease in the use of potable water.

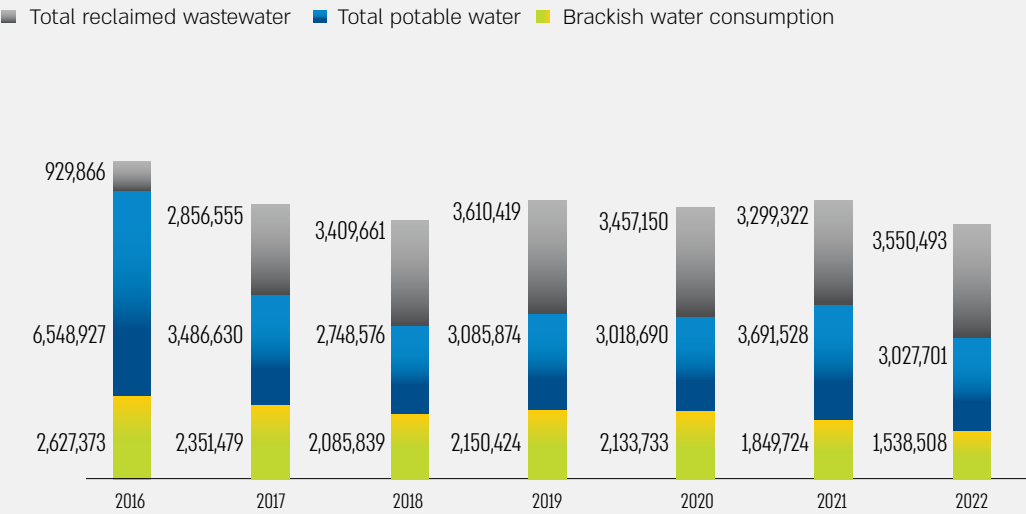
Use of reclaimed wastewater **increased by 8%** from 2021 to 2022.

Use of reclaimed wastewater **increased by 282%** from 2016 to 2022.

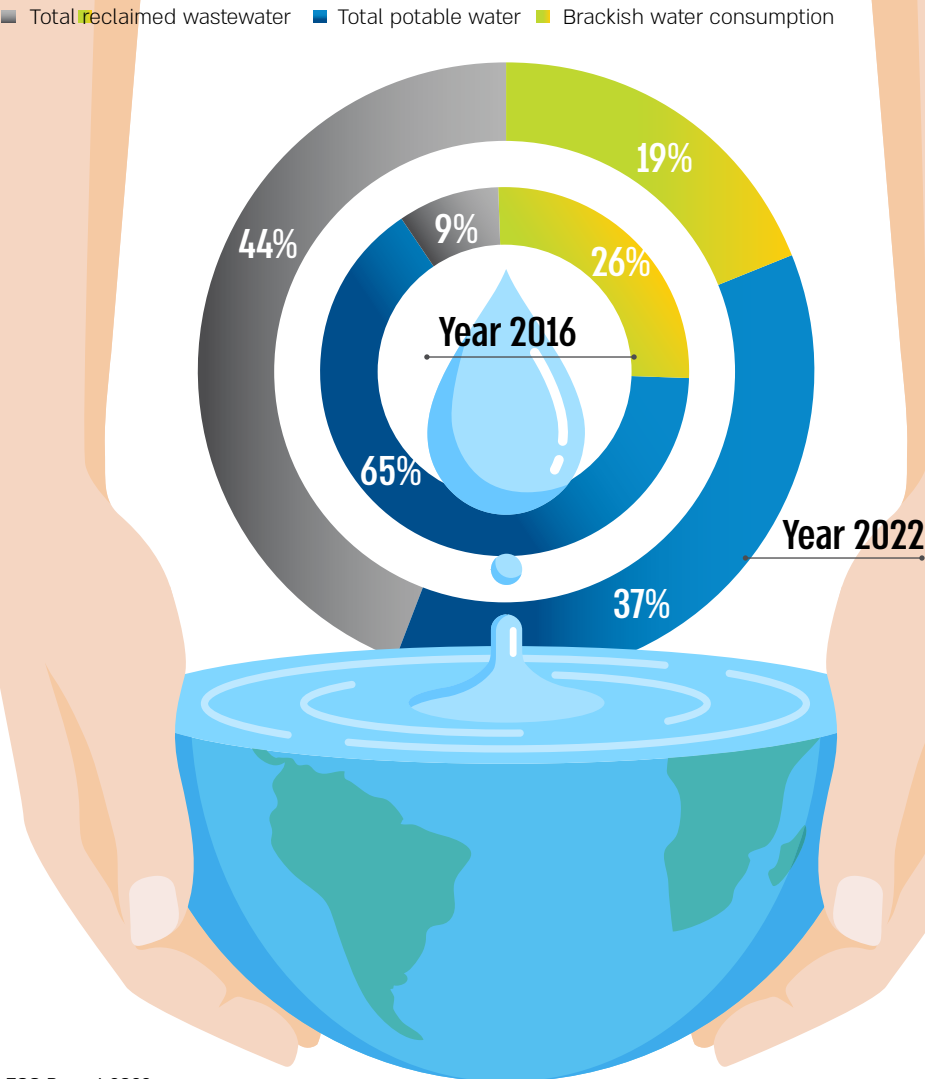
From 2016 to 2022, the Group's overall water consumption decreased by approximately **20%**.



Water consumption in cubic meters/year - in Israel



Composition of water consumption in Israel

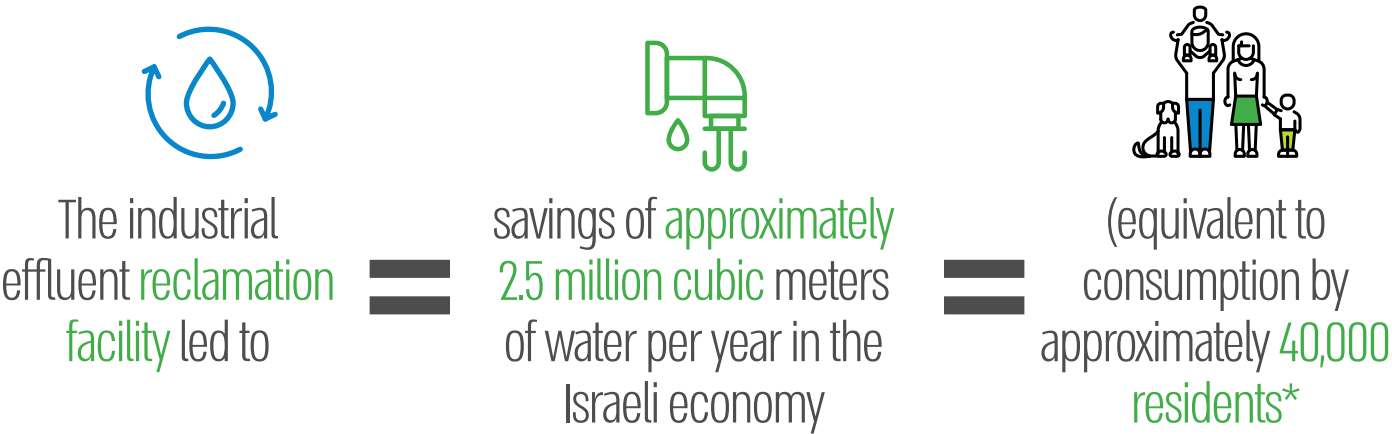


* Without Dukor

Water consumption reduced through reclamation of industrial wastewater

Industrial wastewater reclamation has two main benefits: first, the quality of the concentrate water in the reclamation facility is improved to a level suitable for discharging into the Kishon River, leading to a lower load of nitrates in the river; second, a maximum quantity of the effluents

generated at Bazan and Carmel Olefins are reclaimed as excellent-quality process water, saving consumption of 2.5 million cubic meters of potable water per year – equivalent to water consumption by approximately 40,000 residents.



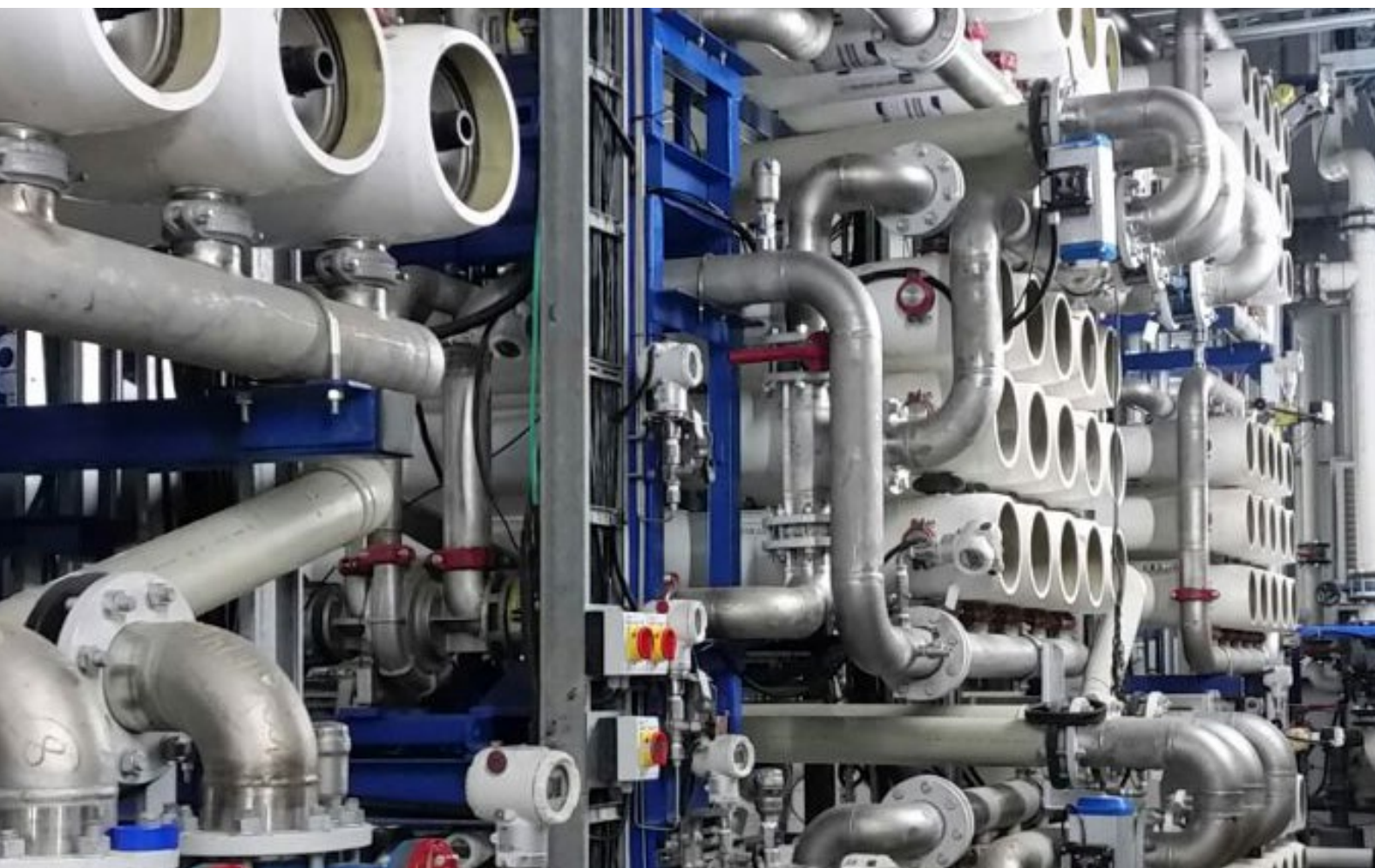
Wastewater reclamation facility

We invest extensive resources in improving the quality and efficiency of processes involving the use of water. An industrial effluent reclamation facility began operating on Bazan premises in 2017, in collaboration with GES, to treat wastewater from the refineries and Carmel Olefins and reclaim water for reuse.

The facility is one of the most advanced of its kind; in 2018, it won the Green Chemistry Industry award from the Israel Chemical Society.

Approximately 60% of the effluents (treated wastewater) is reclaimed for reuse as process water.

* Calculated based on average consumption of approximately 170 liters per person per day.



The industrial wastewater treatment system at Bazan

Wastewater at the refineries contains oils (hydrocarbons), solids, salts, and additional substances that require thorough treatment. These can be divided into two types:

- **Process wastewater** – The use of water or steam in production processes leads to the formation of mixtures of water and hydrocarbons derived from crude oil and products thereof.
- **Oil-free brines** – Concentrate water originating with the process of preparing salt-free water for the production of steam, which is used to generate heat in production processes and in electricity production for self-consumption and in the cooling towers.

Wastewater treatment at the refineries requires operation of multiple facilities, including separators, physicochemical treatment, intensive biological treatment, sand filtration, ultra-filtration and desalination. The facilities operate sequentially, treating wastewater and bringing it to the threshold conditions of the Ministry of Environmental Protection for discharge into the Kishon River.

Carmel Olefins has two wastewater treatment facilities:

- **Wastewater from polymerization facilities** – polymer wastewater treatment includes pumping stations, storage tanks, separation and sedimentation facilities for the separation of oils and polymer grains, a sand filtration system, and sludge treatment systems. The treated wastewater is discharged into the Kishon River under continuous monitoring, in accordance with the threshold conditions of the Ministry of Environmental Protection.
- **Wastewater from the monomer facilities** – the monomer wastewater treatment facility includes pumping stations, storage tanks, and a coal filter system. The treated wastewater is discharged into the wastewater treatment system of the fuel unit for further treatment.

Protecting water quality in the Kishon River

Total organic carbon (TOC) and mineral oil discharged into the river has decreased significantly in recent years, thanks to a broad effort to improve efficiency in the area of industrial wastewater, which are regularly transferred to wastewater treatment facilities, other than during exceptional cases of precipitation.

Wastewater removed from the plant facility meets the quality standard that permits it to be discharged into the river, according to a permit from the Ministry of Environmental Protection. In the removal of concentrate water from the desalination stage (treated wastewater), all of the parameters required to be monitored continuously pursuant to the permit are monitored online. The values established are consistent with the Public Health Regulations and the Inbar Standard for discharging into the river. Bazan thereby converts industrial wastewater into a resource that is reused in the production process, significantly reducing its environmental impact on the sea and river.

Monitoring of wastewater discharges indicates that from 2016 to 2021, discharging of mineral oil into the river decreased, falling below the threshold values set by the Ministry of Environmental Protection (less than 500 kg). This was largely due to the use of wastewater treatment facilities that increase the ability to reuse mineral oil by 74%.

A similar trend was observed with regard to TOC discharged into the Kishon River. Although the volume of reclamation using the wastewater treatment facilities remained similar in 2016-2022, discharging of wastewater into the Kishon River decreased by 91%. In addition, total discharges into the river decreased by approximately 90% during this period.

Runoff water initiative

In 2018-2020, we implemented a venture for separating surface runoff areas from areas where precipitation runoff accumulates that are not operational areas, so that there is no concern about the runoff discharged directly into the environment, such as areas of office buildings and roads. The separation makes it possible to allow surface runoff to flow directly into the river, thereby reducing the potential for pollution of clean runoff and lowering the hydraulic load in the wastewater treatment system.



In 2016-2022, discharging of
wastewater into the Kishon River
decreased by 89%



Waste management at the Group

The Bazan Group has set a goal of maximum reduction of waste generated in the production process, to enable reusing and recycling as much of the waste as possible. To this end, the Group invests great efforts in instilling advanced circular economy perspectives and finding a range of technological solutions for the reuse of wastes.



Reducing waste generated

Efforts to reduce waste generated in recent years have had the effect of reducing the quantities of waste. Total waste generated (hazardous and non-hazardous) **decreased by 19% compared with 2016, and by 38% compared with 2021.**

Hazardous waste

We invest extensively in treating hazardous waste and, in fact, a dramatic improvement is evident in this area.

Total hazardous waste decreased by 15% in 2022, as compared with 2021, and by 42% compared with 2016.

The quantity of hazardous waste sent for treatment soared by 187% compared with 2016.

Reducing emissions and landfilled waste

notable examples of the implementation of circular-economy principles Benzoic acid is a residue of refining that contains organic materials from the solids facility. In recent years, Bazan has exported these residues in the form of cubes, at a volume of approximately 1 cubic meter and a weight of approximately 1 ton, to countries that burn the material to generate energy.

A flocculation facility was completed at Gadiv in 2023, so that the benzoic acid cubes will be replaced with flocs.

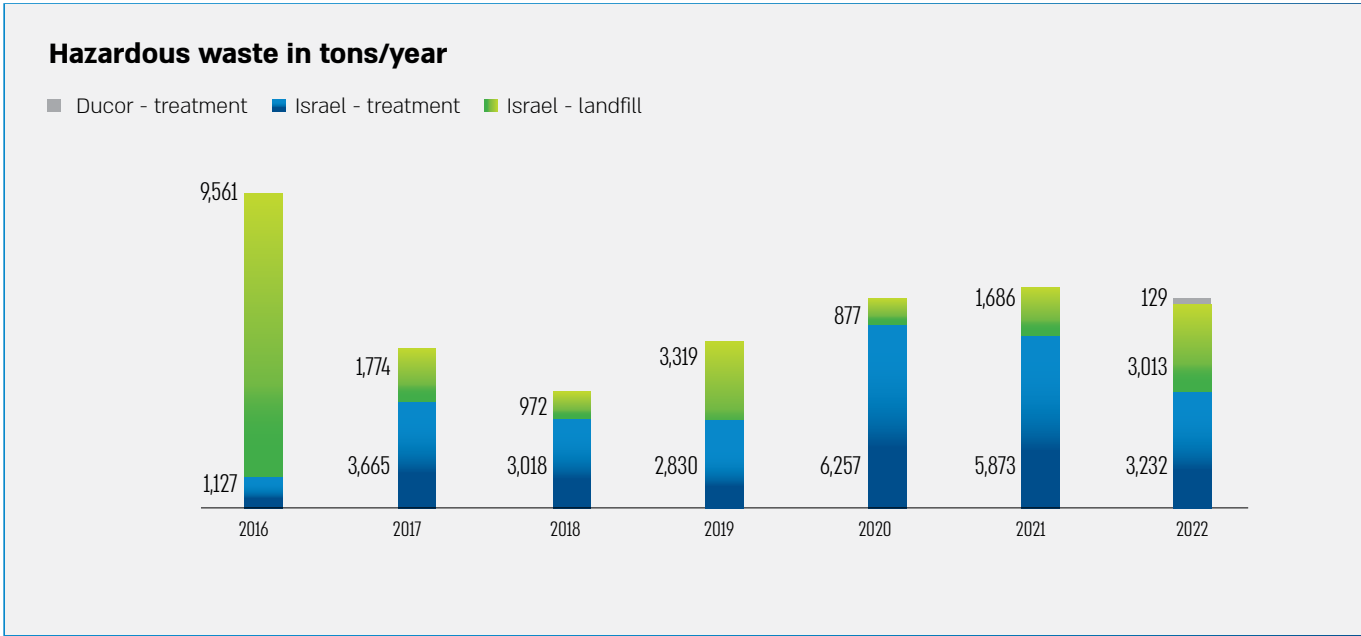


Reducing waste landfilled

To reduce the quantity of waste sent to landfills, the Group invests great efforts in instilling advanced circular economy perspectives and finding a range of technological solutions for the reuse of wastes. **The quantity of waste sent to landfills decreased by 62% compared with 2016, and the quantity of waste sent for treatment grew by 115%.**

This change will make it possible to package the material in sacks and sell it as a product, due to its high caloric value. The transition will reduce emissions of odors and gases, transport problems, and hygiene and safety problems, while also reducing waste treatment costs.

Another example of successful implementation of the circular-economy model is the treatment of isododecane waste generated at Carmel Olefins. Until 2022, this waste was landfilled, at an annual volume of approximately 1,000 tons. As of this year, the waste has been used as a raw material for the refineries, leading to a significant decrease in the volume of waste landfilled. In 2022, the quantity decreased to 115 tons landfilled. In 2023, the circle is expected to be complete, with 0 tons of isododecane waste landfilled.

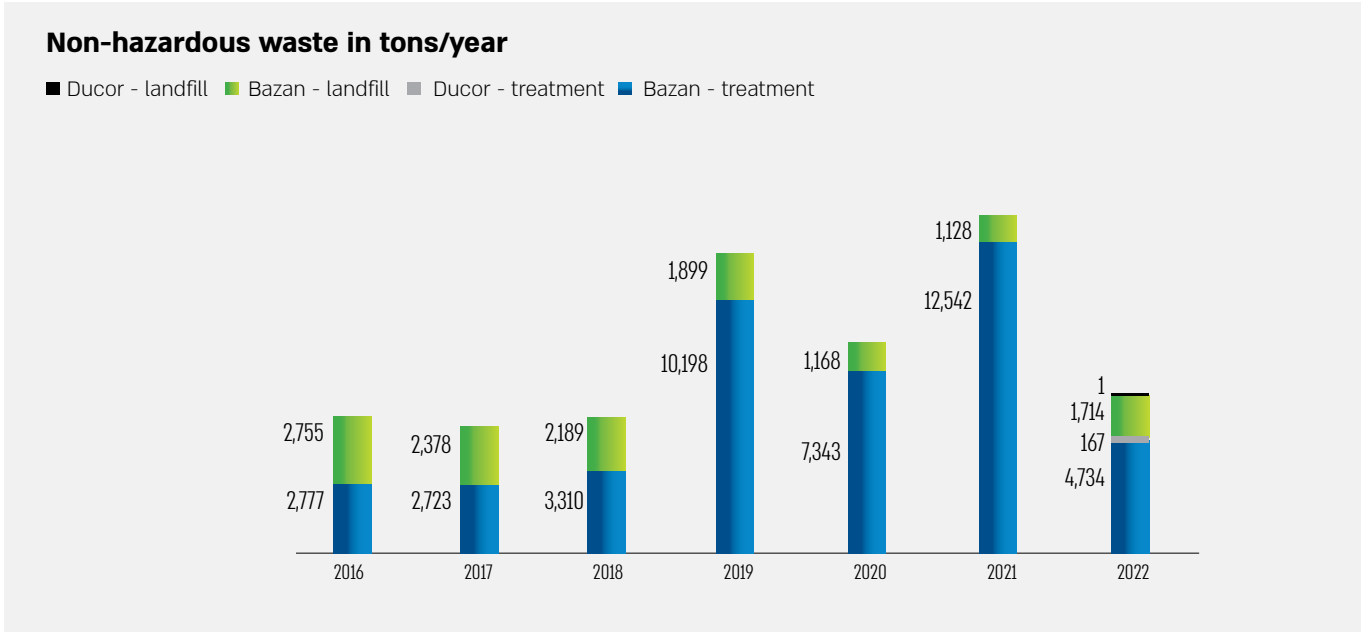


* Ducor does not landfill waste

Non-hazardous waste

Quantity of non-hazardous waste **reduced by 60%** compared with 2021

We have significantly improved our methods of treating non-hazardous waste in recent years. We transitioned from sending waste to landfills - to waste separation on the premises of the plant. Types of waste separated include metals, construction waste, and more. We have reduced non-hazardous waste landfilled by 38% since 2016.



Preventing leaks of plastic particles into the marine environment



לואבדן גרגרי פלסטיק לסביבה

חזון-ה

Operation Clean Sweep® היא תכנית בינלאומית שמטרה למנוע אובדן גרגרי פלסטיק ולהרחיקם מהסביבה הימית. לכל-חלק בתעשיית הפלסטיק כולל יצרן הגרגרים יש תפקיד ביישום התוכנית. עזרו לנו למנוע את-שפך-הגרגרים-

שפך של גרגרי פלסטיק עלול להגיע למקורות מים מקומיים לים ולבסוף לאוקיינוסים-זיהום הגרגרים-בים מהוו איום על בעלי חיים ימיים שאוכלים אותם ומסתכנים במוות לכל אחד-יש תפקיד במניעת שפך הגרגרים כרמל אולפנים חרתה על דגלה את נושא הדאגה לסביבה והקימות על ידי-יישום תוכנית ה- OCS נוכל לתרום את חלקנו בצמצום הזיהום הימי ולחזק את תמיכתנו בנושאים הבאים:

- שימור מקורות מים-ובעלי החיים.
- התאמה עם החוקים- זהו תנאי ברישיון העסק-של כרמל אולפנים וכן בשוקים בחלל אשר אנו מוכרים בהם
- הפחתת תאונות העבודה הנגרמות מהחלקה על שפך גרגרים.
- יעילות תפעולית
- שיפור מוניטין החברה
- שיפור כלכלי



Operation Clean Sweep (OCS) is a global program to raise awareness and promote activity to reduce plastic particle loss by manufacturers, transporters, and others, in view of the harmful effects of these particles on the marine environment.

Ducor joined this initiative in 2020, and took a series of steps to meet the program's objectives. In the absence of official representation in Israel, **Carmel Olefins has undertaken a number of measures in the spirit of the OCS program, including the prevention of plastic particle loss from production facilities through improvements to production sites, and through rapid detection, treatment, and containment of particle spills.**

Particle spills can be prevented through the improvement of production sites and implementation of innovative technologies; high involvement of employees; frequent monitoring of production sites; and keeping spaces clean of particles, to allow rapid detection and treatment of spills. Internal tests conducted by a certified team and training programs allow continual improvement in this area. Particles collected from spills are repurposed through recycling.



שיפורים במפעל למניעת הגעת גרגרים לרצפה מתקן פוליאטילן

שיפורים במתקן פוליאטילן שבוצעו על ידי יוסי אביקזר הורידו ברמה משמעותית את כמות שפך הגרגרים. השיפורים כללו מערכות ונטוריות המשיבות את הגרגרים למיכלים או לביג בגים.



Promoting a circular economy

As a leading company in the fuel and polymer industry in Israel, adopting a circular-economy model based on resource reduction, reuse, and recycling presents great opportunities for Bazan.

These range from the reduction of its environmental footprint by cutting back waste and emissions, to preservation of resources and significant cost savings, and to the encouragement of innovation and creation of new revenue streams leading to sustainable growth. Creating new life cycles for the materials we use every day benefits everyone: manufacturers, consumers, and society. Promoting a circular economy is aligned with our commitment to environmental management and offers a way to ensure the profitability of the Group's operations for the long term.

Plastic waste presents significant environmental challenges across the world in general and in Israel in particular. Green polymers – one of the four pillars of the Group's strategy – are an important step towards coping with these challenges.

The Group invests extensive resources in research and development in this field, both upstream in the supply chain, by developing alternative raw materials from plant-based and renewable sources, and downstream, by producing fully recyclable polymers that can contain high quantities of recycled polymer with no loss of quality.

We are developing solutions to reduce the environmental impacts of our supply chain, particularly with regard to plastic waste, through the R&D unit at Carmel Olefins. Processes such as the acquisition of control of VPM, which specializes in recycling industrial plastic scraps, and the entry into waste recycling are another step forward towards a circular economy.

100% of Carmel Olefins' products are recyclable



Orit Barjorder
VP - Head of Polyolefins Business Unit

We promote research, development, and innovative thinking in recycling processes and in manufacturing recycled materials, in line with our ambitious target of 30% green polymers by 2030.

The acquisition of control of VPM for the mechanical recycling of plastics, examination of technologies for chemical recycling, and biopolymer development are core circular-economy elements with immense potential contribution to the protection of the environment.

Packaging sacks made of recycled materials

In 2022, we started to establish the use of sacks consisting of 30% recycled plastic to package and ship plastic particles made by Carmel Olefins. We thereby made further progress towards making our supply chain more sustainable. We also reduced the quantity of ink printed on the sacks so that they are better designed for recycling.



Proactive on the circular economy in Europe

Ducor is an active player in the Rotterdam business community, involved in various environmental and climate initiatives. In 2020, Ducor joined Operation Clean Sweep, a global program to raise awareness and reduce the loss of plastic particles by manufacturers, transporters, and others, to protect marine environments and biodiversity. Ducor has signed the organization's charter and is promoting measures aligned with its mission to prevent plastic particles from leaking into the ocean.

In 2022, Ducor joined Plastics Europe, an organization for plastic manufacturers in Europe aimed at instilling circular-economy principles and collaborating on environmental solutions.

Ducor is also involved in initiatives to promote dialogue among stakeholders in the Rotterdam industrial district, aimed at creating shared discourse on climate and environmental issues.

In 2023, Ducor's products earned ISCC Plus certification, an international sustainability standard for polymers.



Ann Geens
Ducor Managing Director



By anticipating market needs, we continue to evolve and develop, ready shape the future. As industries evolve and customer expectations shift, our products stand ready to meet these changing landscapes.



Research and development in the polymer industry

The R&D Department at Carmel Olefins consists of 15 researchers, engineers, and technicians,

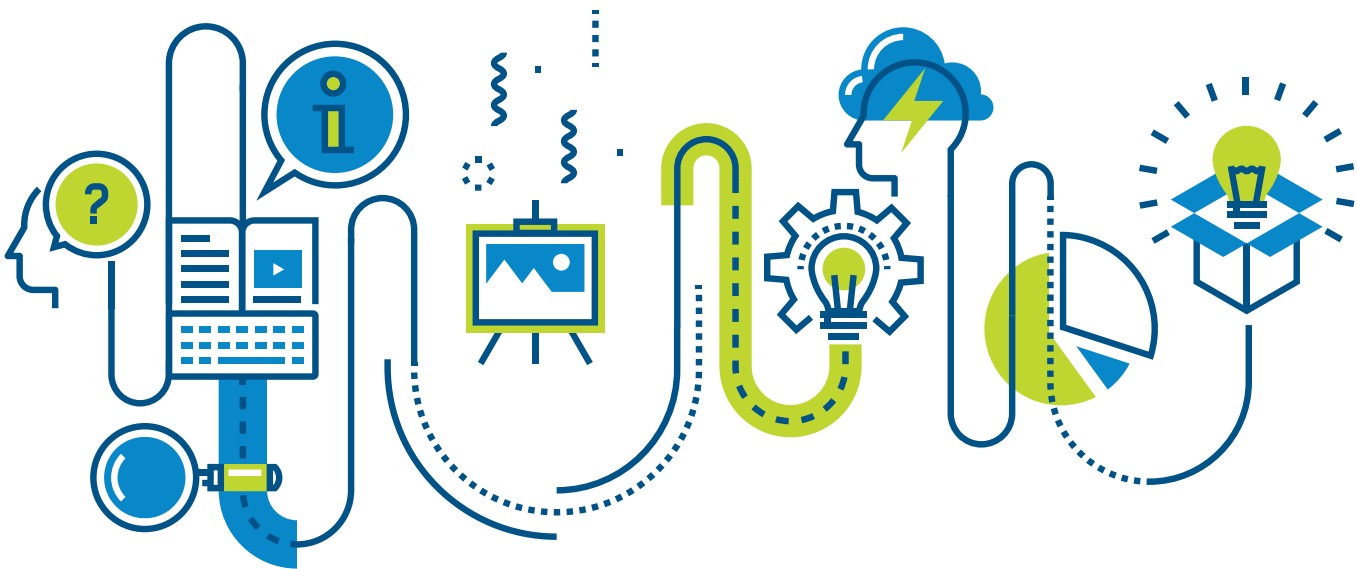
The R&D Department focused on the development of processes and technologies for the production of advanced products using innovative, state-of-the-art laboratory equipment. The department is highly important to the plant, as reflected in the fact that most of the company's polypropylene and polyethylene products were developed there. Several patents have also been registered, for unique compositions of polymers with added value.

Carmel Olefins' innovation in recycling and green polymers is based on three axes:

- **Mechanical recycling** – mechanical processing of plastic waste that preserves the qualities of the material.
- **Chemical recycling** – usually through pyrolysis, where the raw material is plastic and the output is pyrolytic oil. The pyrolytic oil can be fed into cracking facilities for monomer production; later in the process, polymers can be manufactured from recycled plastic waste, at prime product quality.

- **Bioplastic** – plastic from renewable sources.

These three axes encompass a range of activities, involving working with the Group's customers and strategic clients in the local and international markets, developments aligned with evolving requirements in the different markets, and Innovation Authority aggregators working via close collaboration between businesses and academia.



Entering the waste recycling space

Acquisition of control in VPM

The strategic plan released by the Group in the second half of 2021 is focused on the circular economy and ESG principles for the mid- and long term. The planned investments in the polymers segment will help the Bazan Group meet the ambitious strategic targets it has set for the integration of production of at least 15% of its polymers using green sources by 2025, and 30% by 2030.

Bazan has acquired a control stake in VPM, a recycled plastics manufacturer specializing in recycling of post-industrial plastic scrap, at a volume of 12 thousand tons per year. The acquisition was part of the realization of the goal of integrating environmental sustainability with business and creating a sustainable recycling model through the use of skilled personnel and innovative technologies and equipment to improve quality of life.

VPM, an Israeli company founded in 1998, focuses on mechanical recycling of waste and provides a comprehensive solution for the recycling process. This includes a logistical system for collecting industrial scraps from manufacturers across Israel (consisting of

trucks, means for storage of materials, and external sites for crushing on customer premises); crushing; washing; pelletizing; and sale of recycled polymers, which serve as quality raw materials for the plastics industry.

VPM supplies approximately 15 types of recycled plastics, according to the requirements of its customers, who are leaders in manufacturing of plastic products via injection, blowing, or extrusion, in and outside of Israel. The types of plastic include polypropylene, polyethylene, and polystyrene.

VPM collaborates with other units of the Group to develop new products based on the extensive knowledge and experience they have accumulated. Later, VPM is planned to become the Group's mechanical recycling division, within further collaborations, as part of the Group's strategy.

We also signed a memorandum of understanding with Veridis for a collaboration to build a mechanical recycling plant for plastic and ensure sources of plastic waste for our recycling operations.



Neta Banaari
Business Development
Managing Director

“We are examining business opportunities that promote Bazan's sustainability-based strategy. In 2022, we completed the acquisition of VPM, which specializes in recycling industrial waste. The acquisition was part of our overall work towards a circular economy in polymers, along with additional ventures we are promoting in this field and in the areas of biofuels and hydrogen.”

Collaboration with the Environmental Services Company (ESC)



Bazan is working with ESC to examine and initiate the construction of a plant for chemical recycling of waste. Chemical recycling outputs will serve as raw materials that can be fed into Bazan facilities, allowing the production of quality polymers, as part of a circular-economy-based supply chain for the Group.

Investment in Melodea

Melodea, a company located in Rehovot, develops coating materials for packages made from cellulose, sourced from trees, with unique biopolymer qualities. The material is designed to replace comparable materials derived from oil, or to be integrated with such materials as a coating layer for flexible packages, such as those intended for laundry powder or pet food.

Bazan has invested in Melodea in order to develop a new product in the field of polymers and support marketing of Melodea's products, which can replace non-recyclable or non-biodegradable materials.

Investment in the polymer segment will focus on three growth engines:

1

Continuing to lead the polymers market in Israel

2

Growth in plastic recycling

3

Innovation

Our aggregator activity

We believe that collaboration and knowledge are the foundation for the development and advancement of solutions in a wide range of fields, and in the environmental field in particular. MAGNET Consortiums is a program for collaboration among industrial companies and research institutions for the joint development of technologies, financed by the Israel Innovation Authority. We are attentive to the needs of the various markets, developments in regulation, and challenges requiring the development of special polymers, and we endeavor to provide solutions through research and development on the integration of innovative materials with polymers.

We are attuned to our customers' needs that emerge due to trends and regulations, and work to provide solutions through research and development. Thus, these relationships are a key source for our development of patents.

CIRCLE

A development effort has begun in 2019 in response to two challenges in plastic recycling:

First, treating multilayer plastic sheet scraps, which are complicated to recycle due to their heterogeneous composition and the difficulty of separating the layers of plastic; and second, increasing the quantity of recycled material in plastic products, which have inferior qualities relative to new material, while maintaining or improving final plastic quality.

SMART

Development of protective technologies based on active plastic sheets to cope with hazards such as viruses, pests, molds, and fungi in agricultural produce. This development originated with the recognition of the difficulties experienced by farmers in solving these problems due to regulatory restrictions in the area of pesticide safety.

Various technologies developed in this consortium use plastics already used in agriculture to reduce the loss of produce. Collaborations with various academic groups led to the development of plastic sheets, composed of active particles manufactured by Carmel Olefins, that repel pests and prevent the development of molds and fungi. The particles are made of polymers embedded with essential oils using various technologies. These developments, which have earned registered patents, provide an optimal solution to the problem of agricultural produce loss.





Committed to social and economic development

Gender equality - 40%
women in senior
management as of 2022

Diversity and inclusion
– setting an objective of
promoting the integration of
individuals with disabilities
in the Group

Society and community
– policy of contributions
to and support for the
community in accordance
with the UN Sustainable
Development Goals (SDGs)

Economic and social impact

The Bazan Group is traded on the Tel Aviv Stock Exchange and routinely reports on its financial, economic, and operational performance. The reports are available on the Group's website, in Hebrew and English.

The Group is a key player in the energy sector in Israel and in the Israeli economy in general; it is considered a major employer in northern Israel.

A report by global consulting firm BDO for 2022 estimated the contribution of the Bazan Group to the Israeli economy and described the Group's direct and indirect economic impacts. Main findings of the report:

■ Contribution to GDP:

Bazan's overall contribution to the Israeli economy in 2022 is estimated at approximately 8 billion NIS, or approximately 0.45% of Israel's GDP. Its direct contribution is estimated at approximately 3.4 billion NIS, an increase of 31% compared with 2021.

In terms of direct contribution, the Group accounts for approximately 1.9% of the industrial product in Israel, approximately 18% of the industrial product in the district of Haifa, and approximately 54% of the industrial product in the city of Haifa.

■ Contribution to employment:

Bazan has approximately 1,400 direct employees in Israel, while the Group's overall (direct and indirect) contribution is estimated at approximately 16,300 jobs, mostly in northern Israel.

Contribution to employment

Approx. **1,400**
**Direct employees
at Bazan**

Approx. **16,300**
**Employed directly
and indirectly**



Contribution to GDP as of 2022

Approx. **3.4 Billion NIS**

**Bazan's direct contribution
to Israel's economy reflects
an increase of**

Approx. **31%**

compared with 2021.

Approx. **8 Billion NIS**

**Bazan's overall contribution
to the Israeli economy is
estimated at**

Approx. **0.45%**

of Israel's GDP.

Bazan accounts for

Approx. **1.9%**

**Of the industrial
product in Israel**

and Approx. **54%**

**Of the industrial product
in the city of Haifa**

*The report does not include the activity of Ducor

Increasing our positive impact through collaborations

We believe that joint ventures form an important basis for the advancement of the ESG approach and the implementation of the UN Sustainable Development Goals (SDGs). Expansion of our spheres of influence enables us to create force multipliers in support of these goals, and generate a more substantial positive impact on both our immediate surroundings and the broader environment in which we operate.

We are proud of our collaborations with various organizations and our shared work to promote these goals.

ISRAEL



The Manufacturers' Association of Israel

The representative organization of the industrial sectors in Israel. [Link](#)

Bazan is a member of the Association; the Group's representatives take part in a number of different professional forums



The Israel Environment Arena

- Clean Transportation Forum
- Circular Economy Innovation Forum

A multi-sector collaboration venture designed to manage environmental and sustainability related issues in the Israeli economy by building a broad network of partners and creating a direct, common dialogue among academic institutions, the business sector and environmental organizations. [Link](#)

Bazan maintains an active representation in these forums



The Israel Institute of Energy and Environment

The Institute works to promote and enhance the technological knowhow pertaining to oil and its products, electricity, natural gas, the energy industries and the environmental treatment processes in Israel. [Link](#)

Bazan maintains an active representation on the forum as well as a dedicated group dealing with sustainability



EnergyCom.IL

The Energy Innovation Community's vision is to position the State of Israel at the forefront of innovation in the energy markets by expanding the research on this field, creating jobs, sharing knowhow and enhancing the energy markets in Israel. [Link](#)

There is ongoing cooperation with the organization



Ignite the Spark

A community dedicated to the advancement of innovation in the energy sector, focusing on renewable energy sources, energy storage, energy efficiency, hydrogen technologies, etc., to be attained via collaboration within the industry. [Link](#)

There is ongoing cooperation with the organization



Eilat-Eilot

The Eilat-Eilot Renewable Energy Company is a public benefit company, owned by the kibbutzim in the Arava region, the Jewish National Fund and various industrial, development and academic institutions in Israel. The company was founded due to a common interest in the development of local sustainable energy, and following identification of the need for the use of local resources. Eilat-Eilot aspires to turn the Arava region into an international center for renewable energy production technology R&D. [Link](#)

There is ongoing cooperation with the organization



Technion Israel Institute of Technology

A leading university specializing in scientific and technological studies. Some 14,500 students study at the Technion for bachelors, masters and more advanced degrees across 18 faculties and engineering & scientific research units. A total of 52 research centers and institutions operate within the Technion in a broad variety of fields. [Link](#)

Bazan is involved in a broad spectrum of collaboration with the organization, including special days of exposure to the Chemical Engineering section, job fairs, visits of Technion students to Bazan, as well as scholarships awarded to students and paid for by Bazan.



Maala

Maala is an umbrella organization of some 120 leading companies in the Israeli economy, working to pursue issues of corporate social responsibility (CSR) and the development of responsible management standards in Israel. The organization offers sessions devoted to study and the development of knowhow, professional support and personal development for CSR managers, and also leads the Maala Index – a comprehensive questionnaire for measuring sustainability and ESG values in businesses. [Link](#)

Bazan has been rated on Maala's ESG Index for a fourth consecutive year now, and also works in conjunction with the organization throughout the entire year.



The Israel-America Chamber of Commerce (AmCham-Israel) Sustainability Forum

A dedicated forum for discussing and promoting joint ventures on sustainability-related issues, with the participation of the Chamber's member companies. [Link](#)

Bazan joined as an active member of the AmCham-Israel Sustainability Forum.



The Association of Engineers, Architects and Graduates in Technological Sciences in Israel (AEAI)

An umbrella organization with the aim of fostering and furthering the field of engineering and technology in Israel. [Link](#)

The Group's representative is the Chairman of the Hazardous Substances and Process Safety Unit

The Netherlands



Plastics Europe

An organization incorporating the European plastic manufacturers in order to reduce the adverse environmental effects of plastic, while furthering the circular economy and relating to the broader issue of plastic waste. [Link](#)

our membership commenced in 2022 Part of NL chapter, part of the Brussels strategy councils & advocacy committee.



Deltalinqs

An umbrella organization for the companies operating in the port of Rotterdam. It has over 700 member companies, accounting for 95% of the companies operating at the port. The organization constitutes a representative body for the member companies and acts to further sustainable growth, fair competition among the member companies, appropriate conditions, the development of infrastructure and the promotion of environmental and sustainability values. [Link](#)

Ducor is a member of the organization.



Burengespreek Botlek Europoort

An initiative to further dialogue among the various stakeholders in the vicinity of Rotterdam's airport and industrial zones. The organization enables a variety of civil organizations, government entities and industrial companies to discuss together, share problems and find solutions by working together. [Link](#)

This partnership began in 2023 and Ducor representatives take part in forums four times a year.



Operation Clean Sweep

A volunteer program with the aim of fighting against the phenomenon of plastic pellet spillage into the ocean. The program focuses on enhancing working methods and providing guidance and tools to support plastics value chain companies to prevent plastic pellet spillage into water sources. [Link](#)

Ducor is a signatory to the OCS pledge and adopts the agreed steps therein for the prevention of plastic pellet spillage into the ocean.



Taskforce Clean Sweep Rotterdam

A number of companies have joined forces with the Port of Rotterdam Authority, the Netherlands Environmental Protection Agency and additional organizations in order to set up a task force to combat plastic granule pollution in the port of Rotterdam. The team is associated with the Operation Clean Sweep pledge. [Link](#)

Ducor is one of the founder companies of the task force and since 2022 has served as the organization's chair.



Committed to society and community

We regard involvement in society and community outreach to be an important virtue. Social activity and community outreach are issues that are afforded a high priority within our organizational culture and form an integral part of the daily discourse on the factory floor. Bazan employees, the large majority of whom live and reside in northern Israel, act based upon a sense of family and constant belonging to the community.

Alongside the demanding daily work, the discourse on social issues and the desire to contribute are a core issue for Bazan employees – and this is a genuine source of pride for us.

During the course of the last year, we invested considerable amounts in laying down the foundations for focusing our social investments and establishing mechanisms to enable

us to advance this field in conjunction with our employees, while increasing transparency and in accordance with the global principles and the UN Sustainable Development Goals (SDGs). In the 2022 reporting year, a structured process was set in motion to focus social investments and build orderly methodologies, the process was completed during the second half of 2023, and will be featured in upcoming reports.



Photographed during a volunteer cooking and baking activity with Holocaust survivors.

Process for focusing social investments

We believe that there are no shortcuts. In order to ensure that our support for the community creates a tangible impact and contributes to empowerment of the community, we engaged in a structured process to focus the Bazan Group's social investments.

Our guiding principles

In addition to our ongoing activity and support for projects and ventures throughout the year, we made a decision to move ahead with a structured process of focusing our social investments policy, as part of the Group's ESG strategy. This was done in conjunction with an effort to build working methodologies to support increased transparency, Group employee involvement and the ability to create the most significant impact on our stakeholders.

In early 2023, we began with a comprehensive and profound process of examination of our policy of community outreach and involvement. The process, which took place during the first half of 2023, was carried out with the professional support of a global firm specializing in this field, and as such:

- We defined a support and outreach procedure, which involved the appointment of an expanded outreach committee on behalf of the Group management and the business units, to increase transparency and encourage involvement on the part of the Group's employees;

- We held a professional workshop on the issue of UN Sustainable Development Goals (SDGs) which was attended by members of Bazan's ESG Steering Committee and the heads of the Group's employee unions; the discourse on objectives combined the Group management; the objectives defined during this process were: quality education, no poverty, gender equality, health and welfare, as well as decent work, and economic growth. An additional objective reflecting Bazan Group's DNA will be added to these: mutual responsibility and "Blue & White".
- We drafted a social investments policy for the Group, defining the support categories accordingly.

We updated the amount of support in accordance with the global benchmark*, and as of 2023, this amounts to a half a percent of pretax profit, and up to a sum of 10 million NIS;



Steering committee workshop on the UN Sustainable Development Goals (SDGs) and social investments

*** The benchmark is derived in relation to the data of the global CECP organization, and in conjunction with the data from the Maala organization in Israel.

Employee volunteering and engagement

The Group supports volunteering and community engagement by its employees. We strongly encourage private initiatives from our employees as well as coordinated efforts organized in cooperation with Bazan.



The medical staff of the Kochav Meir Field Hospital, which was established on the border of Ukraine, under the leadership of the Sheba Hospital of Tashish and medical centers in Israel



Cycling group of the association "Destinations to the North"

During 2022, the Bazan Group supported a broad variety of social projects and initiatives based on a sense of social responsibility and with the aim of creating a positive impact.

Our impact on the community

Examples of Bazan community activities during the reporting year:

3

GOOD HEALTH AND WELL-BEING

- The Shining Star field hospital** - protective vests were donated to dozens of physicians on the medical staff of the Shining Star field hospital on the border of Ukraine - more than 10,000 Ukrainians have been treated by the medical staff there.
- Support for the activity of the Etgarim NGO's cycling group in Nahalal.** Dozens of people with disabilities were given the opportunity to take part in a terrain biking session on a weekly basis throughout the year in northern Israel.

1

NO POVERTY

- A donation of food parcels to Holocaust survivors and elderly individuals prior to Jewish holidays** - food parcels and equipment for some 400 families in northern Israel, were donated during the Jewish holidays and at the start of the school year.

4

QUALITY EDUCATION

5

GENDER EQUALITY

- Participation in the "Israeli Girl Week" alongside thousands of women from various industries, with the aim of promoting an inspiring personal discourse with the young generation.** The Company's female employees held a meeting and a personal conversation with dozens of Hebrew and Arabic speaking girls across the country, as part of the "Israeli Girl Week 2022" organized by the Shavot NGO.
- Support for financial education workshops for at-risk youth** with a view to preparing them to contend with the economic aspects of life, from a young age; as well as financial instruction sessions for women in sheltered institutions, with a view to helping them build independent and stable lives.

4

QUALITY EDUCATION

8

DECENT WORK AND ECONOMIC GROWTH

- Advancement of initiatives in Israel's geographic and social periphery** - adopting the Entrepreneurship Center in Acre of the Unistream NGO in order to increase the number of entrepreneurs coming from the more socially challenged strata, by nurturing entrepreneurship among young boys and girls who are not normally afforded such opportunities.

Dozens of young members of the Unistream NGO were given mentoring sessions with the Group's employees and managers throughout the year of operation at the NGO's Entrepreneurship Center in Acre.

1

NO POVERTY

4

QUALITY EDUCATION

- Support for the '7 Program' of the Pitchon-Lev NGO,** providing support to some 1,500 youth from Israel's socioeconomic periphery in the form of long-term educational and personal accompaniment and support. The program includes providing aid at critical junctures in the life of these youth, among others: ending high school, beginning national service or military service along with successful integration into civilian life.

With a forward-looking view, Bazan's support for and involvement in society and the community will be adapted to the UN Sustainable Development Goals (SDGs) that were defined as part of the social investment policy, and in accordance with the categories adapted under the objectives, as part of the said process.



The total sum of our financial contribution in 2022 amounts to **1,147,000 NIS**



In the course of 2023, the amount of donations was updated in accordance with the global benchmark - 0.5% of the profit before tax and up to a sum of 10 million NIS

Human resource development

We regard our human capital as a significant and crucial asset for our long-term growth and success. We regard our employees as business partners and endeavor to provide them with a broad response to all their needs, from the initial stage of their entry into their position, during their working period and culminating in the termination of their work and/or retirement – and even afterwards.

Managerial reserve courses, personally tailored instruction and training sessions, activities to empower employee welfare and quality of life – are just a small part of the measures adopted to empower the employees and to realize our perception of them as human resources and

human capital. This approach generates a double profit: personal growth and development for the employees, alongside professional and stable business growth for the organization.

Diversity and inclusion

We regard diversity and inclusion as principles with tremendous socioeconomic value for the Group. A diverse workforce leads to a more dynamic work environment that stimulates innovative and trailblazing thinking. Employment of individuals with special needs, encouraging the employment of underrepresented sectors of the population and gender diversity in our workforce and management help us to increase the sense of belonging among our

employees, and represent a broad variety of skill sets and a vast pool of knowhow in the industry. Our diverse and professional workforce enables us to address the challenges of the time and to quickly adjust to the changing reality.

One statistic that clearly illustrates our commitment to the issue of diversity and inclusion is that of gender diversity in the Group management. In the last report published, we set a target of 40% women in our senior management by the end of 2024; we have succeeded in reaching this target earlier than anticipated, and we look forward to maintaining a high percentage of women at the management level in the future too.

In order to create an inclusive work environment, we improved the channels of communication between the employees and management, we have increased transparency, reduced bureaucratic processes and encouraged seamless and productive communication among all persons at the Company.



Sammy Holzkan
VP Human Resources

Thanks to the dedication, profession knowhow and the involvement of the Company's employees, we are able to develop as an organization, make significant achievements, and continue to provide a stable, safe, and reliable supply of products to all citizens in the State of Israel. Our commitment to the employees is reflected in mutual respect, appropriate remuneration and open communication. We are committed to their personal and professional development, while cultivating a sense of pride, belonging, and organizational engagement - and we ensure that we act in full cooperation with the employee unions.

In 2022, the Group set itself an objective of taking action to promote the integration of individuals with disabilities

Representation of women at Bazan

The Bazan Group takes pride in the significant representation of women across its management ranks, in its various departments, and in managerial roles, including in the areas of manufacturing, innovation, R&D, and more. As of 2022, six out of the 15 members of Bazan's senior management are women, and as such, the Group succeeded in reaching the target it defined for itself by 2024 – 40% of the senior management are women. We fully intend to maintain this important objective and to expand additional objectives to reinforce gender diversity.

The Group ensures that women are included in various roles and promotes actions supporting this approach, from education to mentoring and guidance within the organization and promotion within the Group.

In 2022, one of the 11 directors on the Group's Board of Directors of the Group was a woman, and in January 2023 an additional female director was added.

3 out of 5 group facilities managed by women

The Bazan Group performed a comparative analysis of average pay levels in the organization in 2022, subject to the Equal Pay for Employees Law, 1996. In the report, employees were divided into 14 categories by generation

40% women in senior management as of 2022 – meeting the objective that the Group had set for itself by the end of 2024

and sector. In six of the 14 categories, there was a positive pay gap in favor of women; the largest gap was 23%. On the other hand, the largest pay gap in favor of men was just 10%, and resulted from differences in the duration of employment.

The gaps in pay are influenced by factors such as professional seniority and experience, satisfaction and attainment of objectives, and are not affected by gender differences.

Further information is available in the [Group's Equal Pay Law Report](#).

Employment agreements and pay levels

The Group's member companies are party to the Special Collective Agreements that were signed in 2021 and shall remain in force until 2024, and which provide optimal conditions for the employees. Some employees are employed under personal employment contracts. All employees of the Group - whether they are employed under a collective or personal agreement - are entitled to social benefits, including pension insurance. As of 2022, 86% of employees are employed under collective agreements. The rest of the employees, mainly from the rank of department manager and above, sign personal employment contracts that include pension and insurance coverage as well as social and other benefits.

As of 2022, 86% of employees are employed under collective agreements.

Continuing to care for employees after retirement

Towards their retirement, Bazan employees are entitled to a preparatory course for retirees, with the participation of the Histadrut General Federation of Labor. The course consists of in-person sessions with retirement specialists, a pension advisor, and a National Insurance representative, as well as leisure activities and an educational tour.

The Group remains in contact with its retirees through the Group's retiree club, enrichment lectures, and other activities to maintain a sense of community.

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The Group remains in contact with its retirees through the Group's retiree club, enrichment lectures, and other activities to maintain a sense of community.

Employee training and cultivation of professional skills

The Group's training and instruction unit is oriented to develop employee professionalism and to ensure that they are kept up to date in their various ares of activity, by providing them with the requisite professional knowhow, tools and skills. The Training Department provides a set of tutorials adapted to each role within the Company.

In 2022, 100% of the Group's employees in Israel and 81% of the Ducor employees, received professional feedback designed to enable progress, development and learning, and to provide tools for the development of professional capabilities as required.

Training

Internal training sessions are delivered by persons from within the Group and are intended to provide a response to a number of needs – regulatory demands, the development of professional and soft skills, qualifications and licenses and nurturing a management foundation. Beyond the face-to-face instruction sessions, there are online tutorials to reinforce and inculcate internal procedures, which the employees attend throughout the entire year, as well as focused practical training sessions on the factory floor.

External training sessions are delivered by official external figures for the purpose of professional qualifications and also to maintain employee competency.

Survey conducted to design the instruction and training plan

In order to provide a response to the changing requirements, once a year, managers across the organization are asked to check and report which subjects they would like their employees to train in over the following year. The Group managers states which topics require additional specialization, and based on this survey, the Training Unit schedules additional professional training for the Group's employees –via internal and external courses. In this manner, the Group succeeds in developing a relevant, interesting and focused series of training sessions.

In general, the Group endeavors to maintain equality between men and women in training hours. In 2022, there was a 46% increase in training hours for men and 63% in training hours for women. This statistic reflects a trend of reducing discrepancies in training hours between men and women.

The average number of training hours per employee* in 2022 amounted to 41 hours, a significant increase of 52% compared to 2021.

Identifying capabilities and developing skills

Extensive resources are invested in imparting skills and capabilities aligned with the needs of employees and the organization. This policy includes providing means of identifying capabilities and developing skills, as well as options for professional mobility within the organization. In this way, employees attain self-fulfillment, while the organization benefits from high employee satisfaction due to stronger intra-organizational mobility. **13 employees were transferred to various positions within the Group in 2022.**

Employee development for management positions

Bazan implements a development process for managers from various management ranks, using a range of methods, including courses; mentoring (individual coaching) by senior executives in the Group; individual meetings with organizational consultants; individual professional guidance, when starting a position and on the job; and, in appropriate cases - team development activities.

Further, the Group enables employees and managers to

obtain higher education at the top academic institutions in Israel, and finances their tuition. In 2022, 26 employees studied for advanced degrees, a statistic that reflects a 37% increase in the number of employees studying for advanced degrees in comparison with 2019, which constitutes the base year.

In 2022, 22 of our employees studied for advanced degrees financed by the Group.

Ties with the academic world

The Bazan Group regards reinforcing its ties with the academic world as a key means for laying the groundwork for the future generation of the Group's employees, as well as a contribution towards strengthening the Israeli economy. The activity with the academic world is divided into three levels. The first one involves imparting the knowhow accumulated within the organization by delivering lectures during the studies.

The second one involves building a managerial reserve by recruiting students to work during their studies, and building follow-on tracks for them on completion of their studies. The third one is accomplished by awarding scholarships to students; during 2022, Bazan granted six scholarships to students studying engineering at Haifa University and the Technion.

Safety and health

Bazan ensures that a safe and healthy work environment is maintained at the Group.

To ensure this, safeguards and cautionary measures designated for industrial production in general and the areas of activity of the Bazan Group in particular are applied meticulously and on a routine basis. Moreover, risk analysis is applied on a constant basis prior to any work carried out within the plant's premises, in accordance with the complexity of the work and its accompanying risks. Bazan works in accordance with the requirements of the law in all matters pertaining to employees' health, including contractor employees; employees undergo periodic examinations, as prescribed by law. However, our approach is to aspire to go beyond compliance in terms of higher safety standards than those required by law. Implementation of this approach is manifested, among others, in the construction of new facilities and the ongoing operation, as well as adoption of a relevant management approach and one that encourages an appropriate safety climate.

*Average in Israel

We endeavor to create a culture of responsible and safe work, raising awareness and reinforcing the commitment of employees and managers to this goal. The Company revamps its approach to safety every year through an updated safety management plan, parts of which are presented in this report.



Managing safety and hygiene

At Bazan there is an organization-side safety function that assumes responsibility for all Bazan employees, whether they are directly or indirectly employed. This function is responsible for integrating safety in the daily work planning process and in implementing projects, both proactively and via inspections, tests etc., and also reactively by investigating incidents to identify risks.

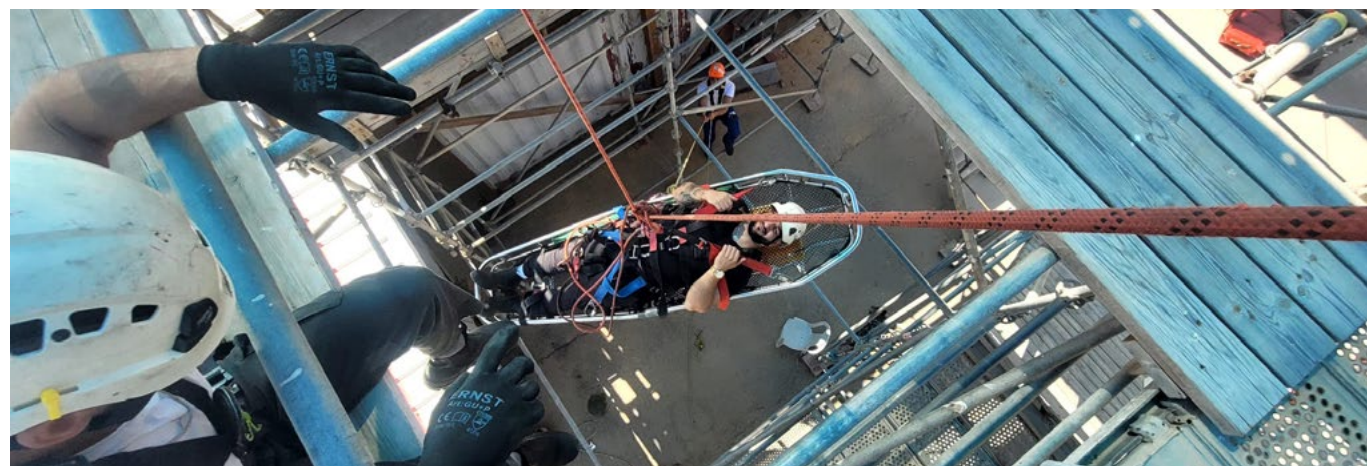
The Environmental Protection, Safety and ESG Committee, which operates in the Group's Board of Directors, outlines the Group's health and safety policy, reports on activities and monitors them. Based on the Company's policy and as part of its long-term outlook, the Group Companies invest considerable financial and administrative resources to comply with all regulatory provisions applicable to them.

Furthermore, the Company has safety committees operating on two main levels: the official safety committee of the Group headed by the Executive Vice President, which convenes at least eight times annually; and the safety management committees of the various business units, headed by the various units' operations managers, which also convene approximately eight times a year.

There are three safety supervisors operating in the Group who are managerially subordinate to the Executive Vice President and are responsible for a number of safety-related fields; personal and process safety, electricity safety and fire safety.

There are Environmental Health & Safety (EHS) supervisors who operate underneath the safety supervisors, who are responsible for implementation of the safety policy and procedures on site on a daily basis. These individuals have the professional training of safety supervisors with certificates of professional competency. They serve as the safety consultants for the various division managers and in this capacity they have all the rights and obligations of the safety trustees, including employee training, identifying safety hazards and engaging in activities to improve the safety conditions.

The Executive Vice President, who also serves as the VP Safety of the Group, leads this field and is in charge of all safety-related issues on a day to day basis.



Safety risk management at the organization

The safety management plan at Bazan emphasizes the management of risks at the organization, including risk identification, assessment, and control. The plan establishes methods and means for the identification of risk factors; a risk matrix and boundaries of risk acceptable in the workplace; and rules for determining the function in the organization responsible for the risk and for applying controls.

An annual risk management plan has also been formulated, including a procedure and schedule for applying controls, and specifying methods for monitoring risk mitigation.

Compliance with safety and quality standards

- Occupational Health and Safety Management Standard, IS 2018 (ISO 45001) – The standard sets forth requirements for a safety management system integrated with overall management activities.
- Quality Management Standard, IS 2015 (ISO 9001) – The standard sets forth requirements for a quality management system integrated with overall management activities.

Since 2017, the Company has been awarded the Platinum Mark of the Standards Institution of Israel, which is granted to organizations that are committed to quality and excellence and hold five or more Quality Marks: Information Security Management (27001), Energy Management (50001), Quality Management (90001), Environmental Management (14001), Health and Safety at Work (45001). The marks attest to the compliance of process and product management systems with international standards.

Reporting on and drawing lessons from safety incidents

The function responsible for reporting and drawing lessons from safety incidents spans the range from employees' personal safety to the workspace as a whole. The work of this function includes study reports that are posted on the Group's portal and are accessible to all employees.

Instilling a culture of safety at the organization is done, among other things, by cultivating dialogue and intra-organizational communication on this subject, combined with a frequently updated system of internal reports, including procedures for reporting, investigating, and learning from incidents. Via this function, the employees can report if they encounter a situation that may cause a safety incident – whether it be a behavioral failure by a human or a near-miss event, that can be reported quite simply from any computer in the organization, and thus enabling the location of unsafe components in the work environment.

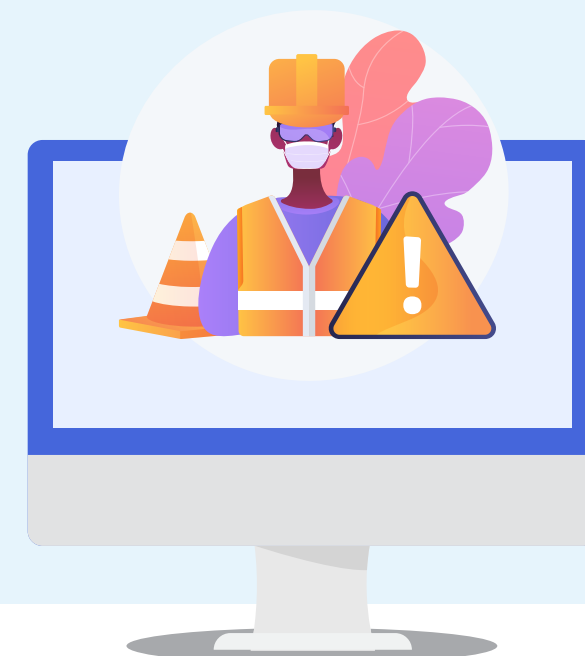
A closer look: use of Connected Worker 4.0 technology

To make information continuously and readily accessible, Bazan has developed a digital safety management system for its employees, adapted to smartphones. Data are recorded and uploaded to a dedicated organizational portal.

System capabilities

Preventive actions – High-resolution monitoring of preventive actions in the field. The system examines whether the required tests were performed at the recommended time, whether previous recommendations were implemented, and whether implementation was performed on schedule.

Ongoing incident monitoring – Every employee can report incidents in real time, as they occur.



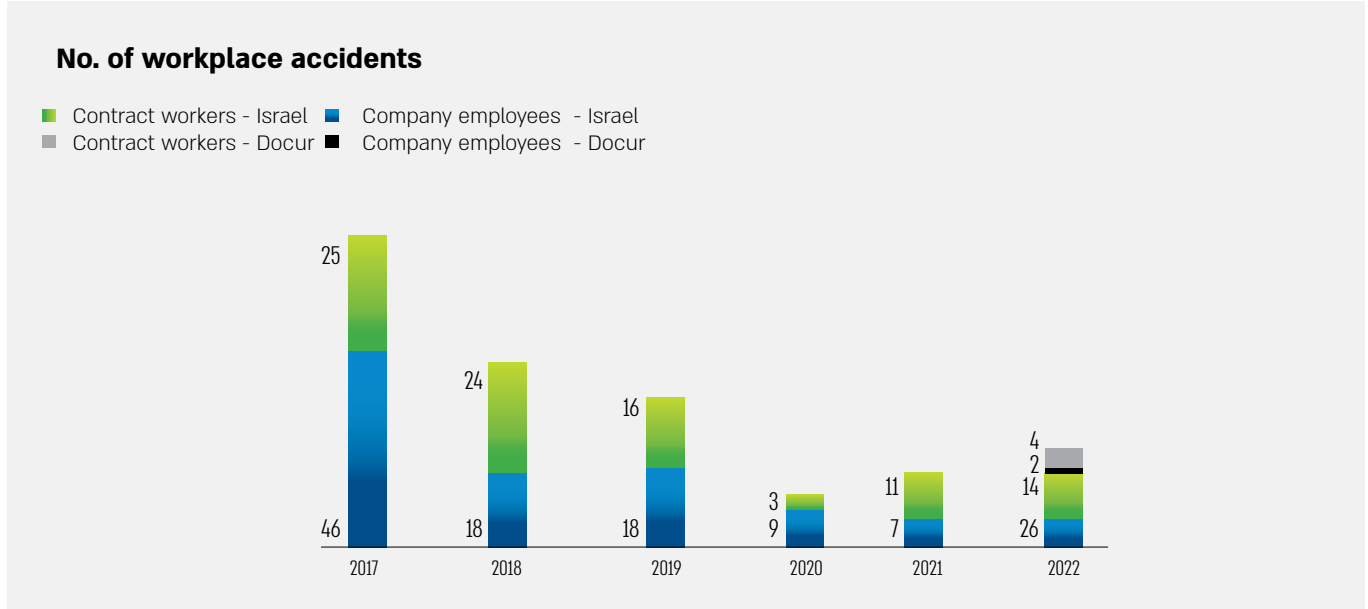
Indicators and targets for the protection of employee safety

A series of indicators and targets has been established for all parts of the organization to ensure that employees' safety is optimally maintained.

Despite the constant decline in IR recorded in recent years, 2022 is not a representative year of this trend - in the wake of events such as the implications of the COVID-19 pandemic, the absence of managers and employees from the Group's plants and the renovation conducted at the plant's facilities, there has been a significant increase in IR. However, as of early 2023, the trend of a decline in IR

returned with greater effect, in a similar manner to the pre-COVID-19 pandemic period. We anticipate that in the long term, the renovation should help to enhance the processes and improve safety at the facilities, and we are engaged in a constant effort to serve this purpose.






In view the successful attainment of the IR target since 2018, which constitutes a base year for review, the Company has set an ambitious target - an IR of 0.5 by 2025.



* Weighted number of accidents per 200,000 hours of work

Incident investigation indicators and targets

Proactive indicators and targets for safety activities and taking advantage of opportunities (leading indicators):

Indicator	Execution status	
Annual safety plan execution percentage	100%	
Compliance check plan execution percentage (internal checks and compliance checks)	100%	
Workplace safety and health	100%	
Annual Group traffic accident reduction plan - execution percentage	100%	
Exceptional event study reports	Annual performance	

A closer look: Safety climate

The safety climate estimates the tendency of a group of employees to prefer adopting safe modes of action. Monitoring the safety climate in each unit enables continual monitoring, and the ensuing findings can then be used to improve the safety culture.

Bazan invests extensive resources in cultivating a high safety climate at its plants, with the aim of ensuring a safer work environment for its employees and anybody coming to visit the plant.

In 2020, a comprehensive safety climate survey was conducted across all of the operational units of Bazan, and results of the survey were presented

to the managers. During 2022, the Group conducted a survey together with the Industrial Engineering Faculty at the Technion, which encompassed all the production facilities and some 600 employees who took part in it. It emerges from the survey that the safety climate at Bazan is higher than the safety climate at parallel plants in Israel (attribution factor). The survey outcomes served as the basis of the work plan in this field for 2023.



Professional expertise in safety

Professional courses

- **Safety officer** - A 10-month safety officer course is held each year. The course is run by an external institution, with 25 employees and managers attending each session, gaining an in-depth perspective on safety and a safety officer certificate.
- **Risk analysts course** – intended for engineers working at the Company, with the aim of providing them with tools for risk analysis in accordance with leading methodologies.
- **An industrial fire fighting course at a dedicated facility at A&M University in the United States** – is held once a year for 15 employees and managers from the Group's production facilities.

Training

- **Employees who are not directly employed:** as part of the effort to maintain the high standard of safety, we require contract workers working at the Group's facilities to undergo safety training and instruction sessions.
- **Company employees:** beyond the general safety training session on the risks on the shop floor, there are also specific training sessions intended to enable specific employees to grasp the risks involved at their own work station.
- **OJT sessions:** dedicated training sessions on safety topics for a variety of positions; lab employees, electricians, employees working at heights, etc.
- **Guests:** before guests enter Bazan, they must undergo an online tutorial on the subject of safety at Bazan, which remains valid for one year.

Actions to increase awareness, explanations and publicity

- Encouragement of managers to attend supplementary safety courses.
- Quarterly sessions designed to engage in lesson learning from past incidents that have occurred both in Israel and abroad
- A safety supervisors course for engineers, managers, maintenance workers and operators
- Dissemination of knowhow and lessons/investigations of incidents via the organization portal
- Communication of the travel laws at Bazan

Preparedness for emergency scenarios

Fire preparedness

An integral part of the routine work of the Bazan Group is preparation for stress scenarios. Extensive financial and human resources are allocated to this matter.

The emergency preparedness system emphasizes preventive action, including through the following measures:

- Rigorously maintaining the mechanical integrity of operational systems;
- Rigorously maintaining high preparedness of Group employees through comprehensive training, among other means. 120 Bazan employees participated in a course dedicated to fire incidents in the petrochemical industry at a school specializing in this area in Texas, in the United States.
- Implementing protective systems, including dedicated fire extinguisher systems, and running a professional fire station that operates 7 days a week, staffed by qualified firefighters, employed by the Company, who are skilled at extinguishing industrial fires;
- The fire station at Bazan is equipped with fire trucks and cutting edge dedicated equipment for fighting industrial fires
- Rescue team – the rescue team comprises 30 employees and specializes in three types of rescue operations: heights, surrounded spaces and destruction. The team trains on a regular basis at dedicated sites that have been established especially for that purpose on the Group's premises, with special dedicated, advanced equipment.

Employee health

The Group implements a broad approach pertaining to the concern for the health of its employees, including focusing on the following spheres:

Preventive treatment

Reducing the potential exposure of employees to hazardous substances and physical elements such as noise and radiation, by supplying means of protection against safety and health hazards.

Ongoing monitoring

Encompassing the monitoring of employee health, including periodic medical examinations to check the condition of employees' health and the level of their exposure to hazardous substances; environmental checks to examine the concentration of pollutants in the air in the work area, as well as monitoring noise damages by periodic checks, in addition to hearing tests for the employees.

Investment in Human Capital

The Group promotes employee health through the following means, among others:

- **Entitlement to examinations:** The employees of the Group are entitled to medical screening tests under their employment agreements.
- **Comprehensive health insurance:** The Group insures its employees under medical and dental insurance policies, and offers them the option to insure their family members at discounted rates.
- **Staying in shape, even on site:** The Group operates a fitness center for its employees.
- **Defibrillators:** 31 terminals equipped with defibrillators (resuscitation devices) are located on the Bazan premises.





Committed to sound governance

An ESG Department was established

The process of mapping ESG and climate risks was completed.

Procurement – integration of the schedule for ethical conduct in business contracts

2023: a process of updating the Group’s code of ethics

Close to 99% of the Group’s employees in Israel have completed the online tutorial on the Code of Ethics



Committed to sound governance

Adherence to transparency and to compliance with the provisions of the law across all areas of activity is a principle of the utmost importance to the Group in all of its endeavors. Alongside the relevant laws and rules for a publicly-traded company in Israel – securities laws and competition laws – the environmental laws and directives in Israel are also of relevance to the Company, and these are considered to be of an advanced and stringent level in international terms, and Bazan routinely invests extensive resources in order to rigorously comply with these laws and directives.



Compliance, ethics, and anti-corruption

Compliance with the law and transparency

Ethics and rules of proper conduct are the bedrock of our activity, forming our borders and compass. The Company is committed to adherence to the obligation of reporting pursuant to the securities laws aimed at ensuring transparency towards all stakeholders, and maintains compliance plans in a number of fields, designed to ensure rigorous compliance with the requirements of the law and with internal procedures.

Any employee may contact the relevant enforcement supervisor or the Legal Bureau, openly or anonymously, to report or consult on these issues. The enforcement plans contain explicit instructions on how to handle complaints, as well as regarding deviations from procedures and the protection of complainants. The Company also has a formalized procedure for decision-making regarding ways of handling anonymous complaints, while ensuring that complainants are protected against damage to their reputation.

The Group operates pursuant to the provisions of the law and the existing directives regarding securities and company laws, laws regarding competition, the prevention of sexual harassment and protection of the environment and safety, and the enforcement of trade restrictions. There are internal procedures applying to these spheres that are enforced on a routine basis by those entities responsible for this within the Company. In 2020-2022, no legal proceedings were taken against the Group in the area of antitrust or competition law. Moreover, details of exceptional cases can be found in the Group's financial statements.



Eli Mordoch
Corporate Secretary

“As a leading company in the energy sector and the Israeli economy, we believe that proper corporate governance based on responsible conduct, transparency and ethical behavior leads to the creation of value for the Group, the investors and our other business partners and stakeholders.”

Ethical conduct

Bazan Group's Code of Ethics was first published in 2012, and then updated in 2018 and once again in 2021. The code, which relates both to employees of the Company as well as contract workers, sets forth the values, principles, standards, and behavioral norms of the Group, and provides tools for appropriate decision-making.

The code is grounded in the four core values of the Bazan Group and it addresses all the Company's stakeholders.



The core values are reflected in the sections comprising the code of ethics:

The Group's Customers

Bazan's success relies on the delivery of quality products to its customers and on its fair conduct towards them. The Group is committed to customer satisfaction, achieved by learning about customers' needs and striving to find adapted solutions, with an emphasis on a service mindset.

collaborations that include understanding the needs of our suppliers and service providers, coordination of expectations, and full transparency.

An ethics appendix relating to the contractual engagement process with suppliers is in the process of coming into effect, and the deadline for its completion with material suppliers is the end of 2023.

The Group's Employees

The partnership between Bazan and its employees is a key element of its success. This partnership is based on long-term mutual commitment, promoting shared goals. The Group provides its employees with a healthy, safe and respectful work environment, enabling every employee to grow, to contribute to and benefit from the Group.

Environment and community

It is crucial for the Company to function as a good corporate citizen within the community. We make efforts to be attentive to the community and engage with it where we can exert a positive social and community impact, immediately and in the long term.

The Group's suppliers and service providers

Good business results depend, among other factors, on the quality of services and materials procured by the Group from its suppliers, which makes them business partners that are essential to its success. We believe in long-term

Proper organizational conduct

We are committed to business conduct based on compliance with the law, transparency, and fairness, while promoting the goals of the Group and maximizing its profits. All employees of the Group are committed to these principles, as well as to intra-organizational teamwork and cooperation with the various stakeholders.

Close to **99%** of the Group's employees in Israel have completed the online tutorial on the Code of Ethics

Implementing the Code of Ethics and building mechanisms for its implementation

The Group has a number of mechanisms for consultation and reporting on ethics complaints. The ethics officer can be contacted anonymously through the Group's portal or by mail, email, or telephone. A formalized procedure for processing anonymous complaints establishes the processes and actions to be applied when a complaint is filed, while ensuring that the reputation of the subjects of the complaint is not tarnished unnecessarily.

Complainants who communicate non-anonymously receive a detailed response to their message, and after the matter has been examined, they receive a report on the conclusions drawn and the subsequent actions taken.

Number of complaints received in the reported years:

- 2019 - 1 complaint
- 2020 - 1 complaint
- 2021 - 3 complaints
- 2022 - 2 complaints

The two complaints from 2022 were open complaints. In addition, the Group's employees and managers consult with the ethics officer on various issues from time to time.

During 2023, a process has been underway to update the Group's Code of Ethics. This process is being advanced in conjunction with the ESG function and members of the ESG steering committee, employee and head office representatives, and is due to be completed by the end of the year.

A summary of the code of ethics is available to the public on [the Group's website](#).



Prevention of sexual harassment

In early 2018, the bylaws on the prevention of sexual harassment were updated in accordance with the phrasing of the law and the regulations derived therefrom. Harassment and sexual harassment are on the list of severe disciplinary offenses noted in the collective labor agreement. Every two years, Bazan employees participate in mandatory training using an up-to-date tutorial; newly hired employees also complete the tutorial and receive information regarding the law from the Human Resources Department. In order to promote and raise the level of awareness to this issue, in 2022, specially dedicated training sessions were held at the Group for managers by an external company, pertaining to the topic of sexual harassment and bullying in the workplace.

The Group has bylaws for the prevention of sexual harassment that are posted on every bulletin board in the Group, including contact information for sexual harassment prevention supervisors. Anonymous messages can be sent through the Group's portal or by mail, email, or telephone, or in person in a meeting with the sexual harassment prevention supervisor.

Complaints and how they were addressed in the reported years:

- 2019 - 1 complaint
- 2020 - 1 complaint
- 2021 - 2 complaints
- 2022 - 1 complaint

All of the complaints were handled through an individual meeting with the sexual harassment supervisor, with further actions taken according to the circumstances.

Anti-corruption and bribery

An anti-corruption procedure in the spirit of the Group's principles constitutes yet another element of its code of ethics. The procedure concerns the prevention of corruption and bribery in the Group's activity with stakeholders, primarily customers and suppliers. The procedure completes the Group's Code of Ethics and provides the employees and third parties operating on behalf of the Group with the basic knowledge required for identifying and preventing acts of bribery and corruption, as well as where it is possible to obtain training and guidance of relevance to that topic.

As an organization operating in multiple markets across the globe, the Bazan Group is committed to ensuring that it is acting according to the laws in all those countries in which it operates. Therefore, the Bazan Group undertakes to comply with all the laws, regulations and requirements applying in relation to the war on bribery and corruption. Among others, the Group is committed to operating according to international standards such as the UN Convention against Corruption, the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the US Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2011, and the EU Anti-Corruption Report. The Bazan Board of Directors regards compliance with the anti-bribery and corruption

laws not only as the requisite degree of observance as mandated by the requirements of the law, but also an expression of the Bazan Group's strong business ethics. The Board of Directors is committed to the Bazan Group policy of anti-bribery and corruption, and it is disseminated to all Bazan Group employees for their knowledge, together with the third parties operating on its behalf.

The Group has a reporting mechanism regarding whistleblowers that is based on the referral and reporting channels of the Code of Ethics.

The key elements of the anti-bribery and corruption policy:

1. The Bazan Group shall not be involved in any form of bribery and corruption, whether this involves government officials or officers in private companies.
2. The Bazan Group shall not accept, request, agree to accept, promise, offer or give, either directly or indirectly, a bribe or any inappropriate payment.
3. The Bazan Group shall not tolerate the fact that employees or business partners acting in its name or on its behalf shall pay or receive a bribe or shall breach this policy in any other manner.



Yonatan Gershon
VP, Chief Legal Counsel

“As an established and key group in the Israeli energy sector, Bazan regards the meticulous adherence to the provisions of the law and compliance with the regulator's directives in all its areas of activity as its moral guidepost.”

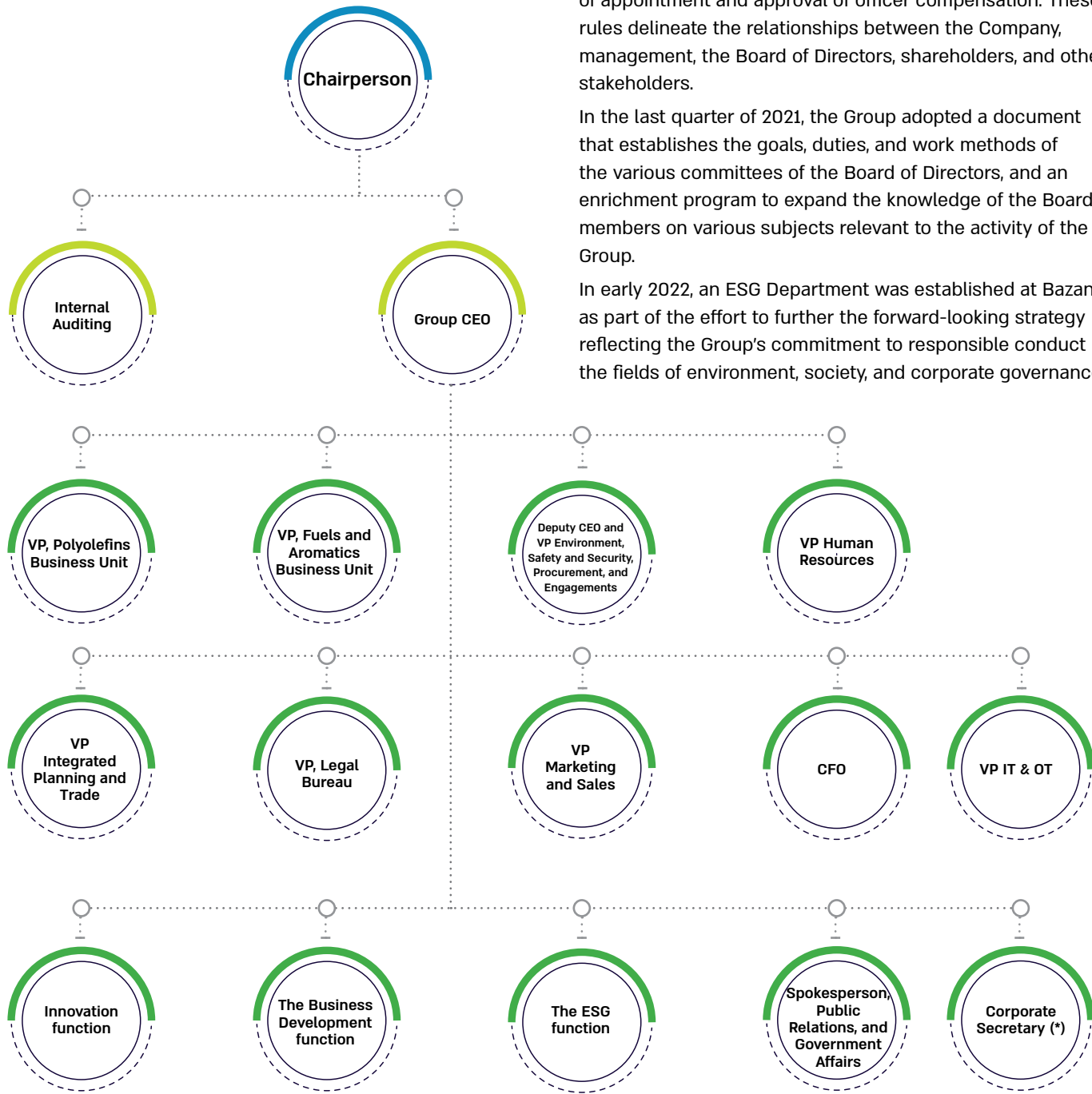
Corporate Governance

The Bazan Group is committed to proper corporate governance, which includes ethical conduct, responsibility, and transparency towards shareholders and stakeholders.

The Group operates in accordance with the law and the rules of sound corporate governance, through formalized procedures that, among others, guide the work of the Board of Directors and its committees, the process of identifying and approving interested-party transactions, and the process of appointment and approval of officer compensation. These rules delineate the relationships between the Company, management, the Board of Directors, shareholders, and other stakeholders.

In the last quarter of 2021, the Group adopted a document that establishes the goals, duties, and work methods of the various committees of the Board of Directors, and an enrichment program to expand the knowledge of the Board members on various subjects relevant to the activity of the Group.

In early 2022, an ESG Department was established at Bazan as part of the effort to further the forward-looking strategy reflecting the Group's commitment to responsible conduct in the fields of environment, society, and corporate governance.



Board of Directors of the Group

The Board of Directors approves the policies of the Group in all its areas of activity, including all environmental, social, and ethical matters. Further, all corporate governance topics are addressed by the Board of Directors, in recognition of their importance to the sound conduct of the Group. Among other means, this is achieved through an internal compliance system in the area of securities and corporate law, which includes regular reports to the Audit Committee (twice a year) and the Board of Directors (once a year), training, and investigation of violations.

External directors are appointed and operate pursuant to the Companies Law, 1999.

As of the end of 2022, there was one woman on the Board of Directors, out of eleven members and in January 2023 another female director was appointed

For further information regarding the composition of the Board of Directors, see the [financial statements of the Company for 2022](#).

The Board of Directors convenes at least once each quarter, and usually on a monthly basis. Beyond that, meetings of the various committees are held from time to time, including the balance sheet and Audit Committee. Once a year, the Board of Directors holds a meeting without management to discuss aspects such as the functioning of the Board of Directors itself. All the material topics are reported regularly in a monthly report submitted by the CEO to the directors, which also covers regulatory aspects, in addition to routine reporting on key topics of the Company's activity during the meetings. Each quarter, within the discussion of the financial statements, the units of the Company present their activities, via the relevant VPs.

Policy on appointments to the Board of Directors and upholding integrity

The appointment of directors is discussed directly by the Board of Directors; in the case of external and independent directors, this follows appropriate discussion by the Audit Committee, in accordance with the law. In the discussion, the aspects stipulated in the enforcement procedures are considered, including the director's qualifications and availability, and conflicts of interest are examined.

ESG management in the Group

The strategy adopted by the Board of Directors in July 2021 places ESG as one of the four pillars on which the Company's activity is based, with a long-term perspective. In order to implement this strategy, we adapted the Group's structure in order to support the Group's routine ESG management and promote activity in this field.

- **ESG in the Board of Directors** – the Board of Directors Environmental Protection and Safety Committee was authorized to supervise the ESG activity, and it plays an important role in shaping the Company's policy in these spheres and in assimilating the principles of ESG within the organizational culture. The Committee receives ongoing updates on ESG-related matters, and convenes twice a year, or more, to receive reports on this field, among others, a review of both the global and local ESG trends, the Group's activity together with future plans. The Committee approves the annual ESG report in addition to the Board of Directors review of it prior to publication. The Chairman of the Board is a member of the Committee.
- **The ESG Department** - in 2022, an ESG Department was established in the Group that reports to the Company CEO. The Department is responsible for reporting to the Board of Directors and to the Board of Directors Committee that is authorized to address ESG-related issues. During 2022, three Committee meetings were held to address ESG updates.
- **ESG Steering Committee**- During the first quarter of 2023, an ESG Steering Committee was established with representatives from the Group's various units serving as members. The Committee's function is to act as the "spearhead" of the organization's ESG-related activity, to serve as a platform for discussions and to formulate ESG recommendations for the management, as well as aiding in organization-wide promotion of related working processes. The Committee convenes on a quarterly basis, or more, chaired by the Head of the ESG Department. The Committee members coordinate working teams on the various topics that seek to further projects throughout the year.
- **ESG risk management program** - The Board of Directors of the Company routinely supervises the financial, social, and environmental performance of Bazan, including relevant risks and opportunities. The Board of Directors examines the risk management conducted at the Company, it monitors the implementation of risk reduction plans and receives regular updates on this subject in addition to the meetings that take

place at the Risk Management Steering Committee, which is composed of members of the Company management.

A process of ESG risk mapping and ranking began during the last quarter of the reporting year and continued into 2023. The process was conducted under the leadership of the Company's Chief Risk Officer

and the Head of the ESG Department, in conjunction with the Company's management. The risk mapping and ranking is carried out in accordance with globally accepted risk management methodologies, and is accompanied by a renowned, international consulting firm with considerable expertise in the field of risk management.

Risk Management

Risk management is done on an ongoing basis by the various units and managed at the group level, in accordance with globally accepted methodologies. In the past year, we expanded and mapped ESG and climate risks, this is towards building a reduction plan in these areas.

Risk management at Bazan forms a significant element in strengthening corporate governance and implementing advanced management and control tools. The Group's management has adopted a policy in this area based on an international model (ERM COSO) and implemented a formalized process to manage the risks to which it is exposed. This includes procedures that establish the areas of responsibility and authority of various functions and create mechanisms for identifying, controlling, and monitoring risks.

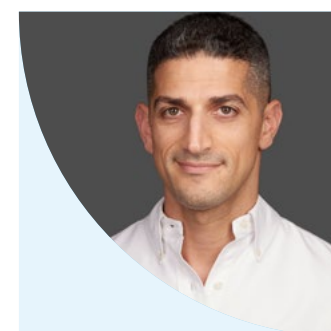
In implementing this process, the Group works continually to strengthen the commitment of its managers and employees to risk management and make it an integral part of its business operations. The aim, among others, is to improve the performance of its various units, achieving the strategic and business goals of the Group, and maintaining an effective corporate governance policy.

Risk management is the responsibility of the Chief Risk Officer who operates in the Group's financial unit together with the Risk Management Forum that convenes at least once a quarter. The Chief Risk Officer and the CFO work constantly towards identifying and prioritizing the Group's risks as well as drawing up plans to address and monitor risk development.

Reports and monitoring of the development of risks and the actions taken to mitigate them are submitted to the Risk Management Steering Committee headed by the CEO, the Board of Directors' Audit Committee, and the Board of Directors. This is done at the frequency prescribed by the Risk Management Forum of the Group.

Bazan has formulated an ordered process for validating and updating its risk map when new risks relevant to the Group's activity are identified. Furthermore, a comprehensive risk survey is conducted every few years, with the assistance of a professional consultant specializing in this field.

In 2020, the Group completed a risk survey approved by the Board of Directors' Audit Committee. In 2021, a risk mitigation plan and KRIs were formulated with respect to all the key risks to which the Group is exposed. The principal risks identified include changes in regulation, failure to realize the strategic plan, and ESG risks, including in the areas of the climate and environment, cybersecurity, financing, and liquidity.



Guy Liberman
CFO



Risk management plays a significant role in bolstering corporate governance within the Group. We regularly work to sustain and reinforce the commitment to risk management among the Group's employees and we adhere to a systematic methodology to constantly validate and update our risk map.



ESG risks

During 2022, a comprehensive process was set in motion for ESG risk mapping and ranking together with meetings to discuss the most material risks in the various categories. This risk survey is scheduled to be integrated into the Group's overall risk plan, once it is completed in 2023.

The working process included outlining the risk categories in accordance with the material topics in the Company ESG Report, identification, and mapping of ESG risks within the Group, risk assessment of those risks identified and the ensuing selection of the key risks.

The risk survey addresses the spectrum of issues derived from the material topics reported in the Group's ESG report, including:

- **Environment** - GHG emissions management and energy efficiency, climate change – addressing and resolving these issues, impacts on water and effluents, air quality and emissions, circular economy, and waste.
- **Society** - occupational, health and safety, human capital, socio-economic impact, responsible supply chain.

- **Corporate Governance** - business ethics, management diversity, regulatory compliance, and transparency.

To identify climate risks, a peer survey was conducted with a view to examining relevant risks at similar companies, and relevant risks from the Company's corporate risk survey were also reviewed.

As part of the risk identification and mapping stage, interviews were conducted with management members and relevant officers in the Group, and on conclusion of this process ESG risks were defined.

The risk assessment stage included both a quantitative and qualitative estimate of the risks by the Group management in accordance with criteria adapted to the relevant impacts of the various ESG spheres, and at the end of this process key risks were selected.

Appropriate treatment and reduction plans shall be drafted for the key risks. Accordingly, benchmarks will be drawn up for monitoring the developments in these risk environments during 2023.



Cyber risks management

The Group's information and cyber security policy is derived from the state laws and regulations. The Group is compliant with the ISO 27001 Information Security Management Systems (ISMS) Standard and with ISOX and is subject to the Israel National Cyber Directorate and its regulatory directives.

There is a risk management procedure dealing with cyber risks in the Group, according to which the Group maintains an enforcement plan in which an annual risk survey is conducted alongside both internal and external audits. Company's management has in place regular control processes to ensure resilience against the various threats. The work plan is determined based on the risk surveys.

Biannual routine reports are delivered to the Board of Directors based on the reports and other components. In addition, the Steering Committee headed by the Company Deputy CEO, convenes twice a year.

There is a dedicated training and instruction procedure for this form of risk management and the employees are obliged to undergo training to raise their awareness of this threat. Moreover, the Group holds drills for employees and particularly the technical teams, in order to contend with the threat.



Data and indices



About the Report

This is Bazan Group’s third ESG report, describing its Environmental, Social, and Governance activities in 2022.

The report covers the Group’s performance in Israel (excluding VPM, which its control was acquired during the reported year) and in the Netherlands (Ducor) during the reported year.

The report was written in accordance with the following reporting standards:

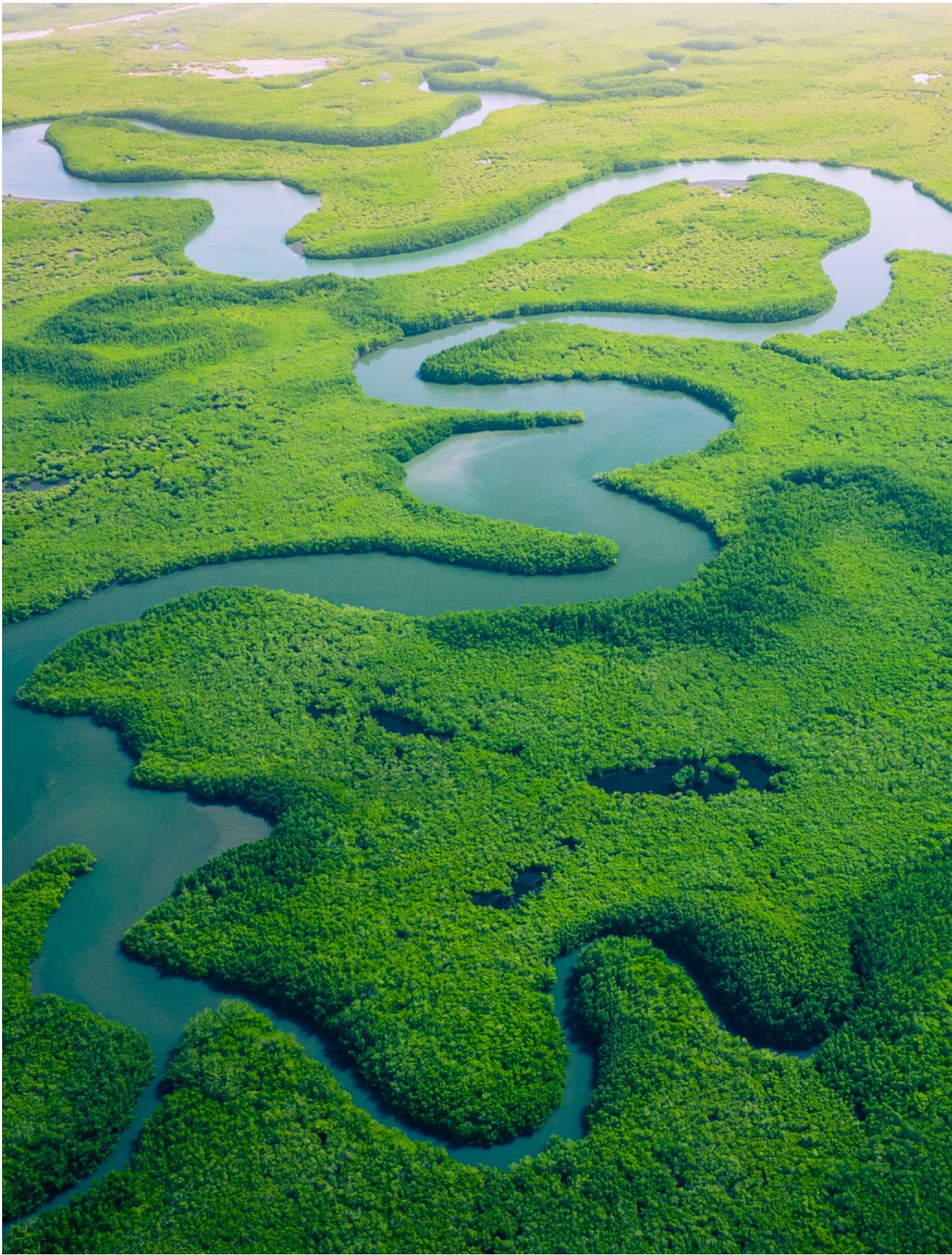
- GRI (Global Reporting Initiative) – In Accordance
- SASB (Sustainability accounting standards board). Sector: Extractives and mineral processing – Oil & Gas – refining and marketing (SASB Code – EM-RM)

In some data tables, percentages may not calculate to 100% or exact figures, due to rounding effects.

Please note that data in this report may differ from data reported in the past, due to data cleansing, improvement of data collection processes, and supportive controls.

This report has been extensively verified internally. In addition, external limited assurance was performed by the accounting firm KPMG.

This ESG report was approved by the Board of Directors, the Safety and ESG committee, the CEO, and the management of the Company.





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Independent Limited Assurance Report to the users/readers of BAZAN Group Oil Refineries Ltd. 2022 ESG Report

We were engaged by the management of BAZAN Group Oil Refineries Ltd. (further referred to as “BAZAN” or “the Group”) to provide limited assurance on the specified parts as mentioned in the table below (further referred to as “specified parts”), regarding the information presented on BAZAN’s 2022 ESG Report for the year ended 31 December 2022 (further referred to as “the Report”), Israel data only.
It should be noted that the assurance refers to the information and data included in the topics listed in this table, regarding the reporting year, only.

The limited assurance was performed regarding the data and information in the specified parts detailed in the table below:

Subject Matter	Units	2022
Total number of employees	#	1,406
Average employees' training hours – total	hours	41
Average employees' training hours – men	hours	42
Average employees' training hours – women	hours	31
Conducting materiality assessment	existence	
Employees completing Code of Ethics tutorial	%	99
Injury rate (IR) – group employees (direct)	#	1.79
Injury rate (IR) – contract workers	#	1.15
Injury rate (IR) – total	#	1.49
Number of work related accidents – group employees (direct)	#	26
Number of work related accidents – contract workers	#	15
Number of work related accidents – total	#	41
Absence rate (SR) – direct group employees only (Israel)	#	17.46
Natural gas consumption	GJ	30,144,150
Electricity consumption - external sources	GJ	2,802,848
Electricity consumption - internal production	GJ	833,522
Potable water consumption	m ³	3,027,701
Reclaimed water consumption	m ³	3,550,493
Brackish water consumption	m ³	1,538,508
Industrial effluents discharged into the Kishon River - total	m ³	311,693
Industrial effluents discharged into the Kishon River - Caol	m ³	60,803
Industrial effluents discharged into the Kishon River - Bazan	m ³	250,890
Hazardous waste - total	ton	6,245

Further information and details, including the scope, content, assumptions and estimates determined by the Group regarding the specified parts included in the process, can be found in the relevant chapters of the Group's Report.

BAZAN management is responsible for A. the preparation and the presentation of the ESG Report in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) as described on the relevant page of the Report site, and the information and assertions contained within it B. for determining BAZAN’s objectives in respect of sustainable development performance and reporting C. for establishing and maintaining appropriate performance management and internal control systems from which the information is derived, to be free from omissions and material misstatements whether due to fraud or error. D. the identification of stakeholders and material issues for reporting.

Our responsibility is to provide a limited assurance engagement and to express a conclusion based on the work performed. We conducted our engagement in accordance with International Standard on Assurance

Engagements (ISAE) 3000, *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board (IAASB). That Standard requires that we comply with applicable ethical requirements, including independence requirements, and that we plan and perform the engagement to obtain limited assurance about whether the Report is free from material misstatement.

A limited assurance engagement, regarding data and information in the specified parts on the ESG Report, consists of making interviews, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other evidence gathering procedures, as appropriate. These procedures included:

- Examination of the specified parts in the Report, for the purpose of performing a limited assurance, based on public information sources, knowledge of the Group business and other comparative information of similar organizations.
- Interviews of management to gain an understanding regarding the specified parts.
- Interviews with senior management and relevant staff of BAZAN management concerning ESG strategy and policies for the specified parts, and the implementation of these across the business.
- Interviews with relevant staff at corporate and business unit level responsible for providing the information in the Report.
- Comparing the information regarding the specified parts presented in the Report to corresponding information in the relevant underlying sources to determine whether all the relevant information contained in such underlying sources has been included in the Report.
- Where relevant, conducting interviews regarding the calculation, aggregation and methods used to collect and report the specified parts in the Report.
- Reading the information presented in the Report to determine whether it is in line with our overall knowledge of, and experience with, the ESG performance of BAZAN.

As part of the process of performing a limited assurance, we reviewed the changes made to the draft ESG Report of BAZAN and reviewed the final version of the Report to ensure that it reflects our findings.

Limited assurance is less than absolute assurance and reasonable assurance. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement. As a result, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Based on the limited assurance procedures performed and the evidence we have obtained, described in this report, nothing has come to our attention to indicate that the specified parts as mentioned in the table above, in BAZAN’s 2022 ESG Report, Israel data only, are not presented, in all material respects, in accordance with the GRI and BAZAN 's reporting criteria.

Our limited assurance report is made solely to BAZAN in accordance with the terms of our engagement. Our work has been undertaken so that we might state to BAZAN those specified parts we have been engaged to state in this limited assurance report and for no other purpose or in any other context. We do not accept or assume responsibility to anyone other than BAZAN for our work, for this limited assurance report, or for the conclusions we have reached.

Tel Aviv, Israel
4 October 2023

Somekh Chaikin

Group's Data

	2018	2019	2020	2021	2022 - Israel	Ducor - 2022	Total for 2022
Energy consumption (GJ) / year							
Energy consumption by source							
Electricity consumed from external sources	3,031,715	3,087,206	3,112,757	2,919,151	2,802,848	243,605	3,046,453
Electricity consumed from internal production	787,606	860,857	755,116	915,125	833,522	0	833,522
Natural gas	30,145,434	32,724,065	30,328,655	32,365,614	30,144,150	9,259	30,153,409
Fuels	35,439,990	36,068,504	35,512,626	35,311,364	35,235,266	0	35,235,266
LPG	396,322	109,837	334,464	254,399	565,398	0	565,398
Steam	-	-	-	-	0	115,900	115,900
Energy consumption by activity							
Fuels and Gadiv	54,824,082	56,282,748	52,627,491	54,419,201	55,383,435	0	55,383,435
Carmel Olefins - petrochemical	14,941,824	16,567,721	17,416,127	17,346,452	14,197,749	0	14,197,749
Ducor	-	-	-	-	-	368,764	368,764
Haifa Basic Oils – aromatic oils	35,160	0	0	0	0	0	0
Total Energy Consumption	69,801,066	72,850,469	70,043,618	71,765,653	69,581,184	368,764	69,949,948

	2016	2017	2018	2019	2020	2021	2022
Greenhouse-gas emissions (Ton CO2e)/year							
Total - Scope 1	2,449,827	2,518,314	2,471,436	2,440,192	2,219,973	2,224,300	2,207,179
Fuels	1,896,748	1,913,533	1,841,354	1,790,657	1,572,645	1,592,046	1,647,273
Carmel Olefins	405,102	486,376	458,179	488,143	465,689	452,164	365,189
Gadiv	147,977	118,405	171,903	161,393	181,638	180,091	184,166
Ducor	-	-	-	-	-	-	10,550
Total - Scope 2	229,393	265,469	261,013	269,232	293,804	321,394	329,212
Fuels	88,234	103,753	99,028	100,712	137,802	142,123	129,905
Carmel Olefins	118,683	145,300	140,622	148,110	134,145	154,146	122,513
Gadiv	22,477	16,415	21,363	20,410	21,857	25,126	24,985
Ducor	-	-	-	-	-	-	51,807
Total Scope 3*	-	-	-	-	-	5,381,008	5,931,632
Bazan Group - Israel	-	-	-	-	-	5,381,008	5,680,714
Ducor	-	-	-	-	-	-	250,919
Total reduction of GHG emissions	2,679,220	2,783,783	2,732,449	2,709,424	2,513,777	7,926,702	8,468,024

Group's Data

	2016	2017	2018	2019	2020	2021	2022
Emissions, kg/year							
Total suspended particulate matter (SPM)	44,789	44,123	35,744	23,749	34,204	22,498	23,609
Fuels	44,789	27,498	24,632	23,749	21,662	22,498	23,486
Carmel Olefins	-	16,625	11,112	-	12,542	-	-
Gadiv	-	-	-	-	-	-	-
Ducor	-	-	-	-	-	-	123
Total non-methane volatile organic compounds (NMVOCs)	564,616	504,332	493,084	275,073	233,301	222,585	242,727
Fuels	222,764	269,000	265,485	129,239	79,778	66,984	59,867
Carmel Olefins	259,241	166,002	180,917	117,175	114,730	144,567	164,196
Haifa Basic Oils	8,545	2,737	-	-	-	-	-
Gadiv	74,066	66,593	46,682	28,659	38,793	11,034	7,200
Ducor	-	-	-	-	-	-	11,464
Total nitrogen oxides (NOx)	1,387,730	1,518,414	1,212,304	1,119,791	1,113,191	1,056,251	750,422
Fuels	931,939	1,019,059	757,275	674,324	683,771	671,537	656,391
Carmel Olefins	358,287	423,788	361,493	348,232	324,032	280,511	-
Gadiv	97,504	75,567	93,536	97,235	105,388	104,202	91,347
Ducor	-	-	-	-	-	-	2,684
Total sulfur oxides (SOx)	314,162	383,848	431,969	238,022	180,485	220,583	197,741
Fuels	314,162	383,848	431,969	238,022	180,485	220,583	197,741
Carmel Olefins	-	-	-	-	-	-	-
Gadiv	-	-	-	-	-	-	-
Ducor	-	-	-	-	-	-	0
Total benzene (C ₆ H ₆)	3,401	2,491	2,231	554	571	411	350
Fuels	1,326	1,485	1,396	300	257	232	129
Carmel Olefins	1,152	494	513	123	64	66	123
Gadiv	923	512	322	132	250	113	99
Ducor	-	-	-	-	-	-	-

Group's Data

	2016	2017	2018	2019	2020	2021	2022
Water consumption in cubic meters / year							
Total brackish water (excluding Ducor)	2,627,373	2,351,479	2,085,839	2,150,424	2,133,733	1,849,724	1,538,508
Fuels	2,206,942	1,875,515	1,604,368	1,559,622	1,592,456	1,270,600	1,038,624
Carmel Olefins	366,914	434,254	447,636	530,836	492,171	499,174	430,107
Gadiv	67,400	41,710	33,835	59,967	49,106	79,951	69,777
Ducor	-	-	-	-	-	-	271,000
Total potable water (excluding Ducor)	6,548,927	3,486,630	2,748,576	3,085,874	3,018,690	3,691,528	3,027,701
Fuels	5,020,716	1,827,605	1,173,059	1,506,782	1,380,657	2,057,061	1,525,274
Carmel Olefins	1,193,935	1,347,360	1,255,106	1,341,735	1,383,981	1,384,710	1,241,756
Gadiv	334,276	311,665	320,411	237,357	254,053	249,757	260,671
Ducor	-	-	-	-	-	-	500
Total reclaimed wastewater (excluding Ducor)	929,866	2,856,555	3,409,661	3,610,419	3,457,150	3,299,322	3,550,493
Fuels	929,866	2,856,555	3,409,661	3,610,419	3,457,150	3,299,322	3,550,493
Carmel Olefins	0	0	0	0	0	0	0
Gadiv	0	0	0	0	0	0	-
Total water consumption (excluding Ducor)	10,106,166	8,694,664	8,244,076	8,846,717	8,609,573	8,840,574	8,116,702

	2016	2017	2018	2019	2020	2021	2022
Effluents, kg/year							
Total mineral oil discharged into the river	2,492	-	3,262	6,402	6,043	-	-
Fuels	2,492	-	3,262	6,402	6,043	-	-
Carmel Olefins	-	-	-	-	-	-	-
Total mineral oil discharged to effluent treatment plant	822	3,765	4,199	4,278	3,410	1,426	1,912
Fuels	-	1,145	1,639	1,628	1,390	581	526
Carmel Olefins	822	2,620	2,560	2,650	2,020	846	1,386
Total TOC discharged into effluent treatment plant	50,899	86,620	84,674	60,250	60,527	49,071	55,290
Fuels	29,680	53,231	51,850	44,876	40,771	31,087	39,589
Carmel Olefins	21,219	33,389	32,824	15,374	19,756	17,984	15,701
Total discharge into the river	2,719,233	578,650	662,674	821,235	1,070,564	300,215	311,693
Fuels	-	542,855	522,487	667,397	843,831	205,987	250,890
Carmel Olefins	-	35,794	140,187	153,838	226,733	94,228	60,803
Total wastewater - Ducor	-	-	-	-	-	-	6,779

Group's Data

	2016	2017	2018	2019	2020	2021	2022
Concrete waste / year							
Total hazardous waste - treatment (excluding Ducor)	1,127	3,665	3,018	2,830	6,257	5,873	3,232
Fuels	295	1,760	979	593	4,578	3,463	1,742
Carmel Olefins	832	1,218	1,159	1,448	994	1,223	304
Gadiv	-	687	880	789	686	1,013	1,186
Ducor	-	-	-	-	-	-	129
Total hazardous waste - landfilling (excluding Ducor)	9,561	1,774	972	3,319	877	1,686	3,013
Fuels	8,549	1,554	841	2,724	609	1,500	2,691
Carmel Olefins	259	209	124	66	23	42	198
Gadiv	753	11	8	529	246	144	124
Ducor	-	-	-	-	-	-	-
Total hazardous waste (excluding Ducor)	10,688	5,439	3,990	6,149	7,134	7,386	6,245
Total non-hazardous waste - treatment - (excluding Ducor)	2,777	2,723	3,310	10,198	7,343	12,542	3,734
Fuels	2,274	2,184	2,633	8,836	6,567	11,158	2,626
Carmel Olefins	503	375	501	965	651	1,228	1,018
Gadiv	5	673	619	131	471	366	89
Ducor	-	-	-	-	-	-	167
Total non-hazardous waste - landfilling - (excluding Ducor)	2,755	2,378	2,189	1,899	1,168	1,128	1,714
Fuels	2,743	1,566	1,104	1,135	620	687	1,029
Carmel Olefins	5	673	619	131	471	366	565
Gadiv	7	139	466	633	77	74	119
Ducor	-	-	-	-	-	-	1
Total non-hazardous waste (excluding Ducor)	5,532	5,101	5,499	12,097	8,511	13,670	5,448

• Scope 3 emissions calculated for the first time For Bazan grop in Israel in 2021 and in 2022 for Ducor

Group's Data

Employee turnover rate

	2019		2020		2021		2022 (including The Netherlands)	
	Hired employees	Exited employees	Hired employees	Exited employees	Hired employees	Exited employees	Hired employees	Exited employees
Men	4%	6%	3%	4%	7%	8%	11%	6%
Women	1%	1%	0%	1%	1%	1%	2%	2%
Age 30 or lower	1%	0%	1%	0%	3%	0%	4%	1%
Aged 30-50	3%	3%	2%	2%	5%	3%	7%	5%
Over 50	0%	4%	0%	3%	1%	5%	2%	3%
Total	4%	7%	3%	5%	8%	8%	13%	9%

Bazan Group Employees

	2019	2020	2021	2022
ISRAEL				
Company headquarters and management	274	263	257	274
Fuels Business Unit	549	541	548	582
Polyolefins Business Unit	448	447	447	466
Aromatics and Oils Business Unit	94	90	80	84
Total direct employees in Israel	1,365	1,341	1,332	1,406
Service providers and employees of contractors and service providers of the Bazan Group	1,610	1,830	1,881	2,359
DUCOR				
Polyolefins Business Unit (Ducor)	-	-	-	99
Total direct employees in The Netherlands	-	-	-	99
Service providers and employees of contractors and service providers of Ducor	-	-	-	30

Diversity and inclusion at the Bazan Group - Israel

	2019		2020		2021		2022	
Employee rank	Percentage of women	Percentage of underemployed groups	Percentage of women	Percentage of underemployed groups	Percentage of women	Percentage of underemployed groups	Percentage of women	Percentage of underemployed groups
Senior management	33%	11%	27%	9%	27%	10%	40%	7%
Management	15%	3%	16%	3%	19%	3%	19%	4%
Non-management employees	14%	9%	14%	9%	14%	9%	14%	10%
Total	15%	8%	15%	8%	15%	8%	14%	9%

* Data in the tables refer to tenured employees.

Group's Data

Bazan Group - Israel - training hours – average training hours per employee

Gender	2018	2019	2020	2021	2022
Women	31	24	10	19	31
Men	38	35	21	29	42
Total	37	34	19	27	41

Parental Leave

	2019			2020			2021			2022		
	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
Employees entitled to parental leave	12	63	75	14	58	72	10	62	72	10	54	64
Employees who exercised their entitlement to parental leave	12	1	13	14	1	15	10	0	10	10	2	12
Employees who returned to work after parental leave	4	1	5	5	1	6	10	0	10	6	2	8
Employees who remained at work 12 months after returning from parental leave	4	1	5	12	1	13	10	0	10	9	0	9

Employee feedback sessions

	2019	2020	2021	2022 - Israel	2022 - The Netherlands
Percentage of employees given periodic professional evaluation and feedback	73%	80%	100%	100%	81%

Group's Data

	2017	2018	2019	2020	2021	2022
No. of workplace accidents* (Israel)						
Company employees	46	18	18	9	7	26
Contract workers	25	24	16	3	11	15
All employees	71	42	34	12	18	41
No. of work accidents* (The Netherlands)						
Company employees	-	-	-	-	-	2
Contract workers	-	-	-	-	-	4
All employees	-	-	-	-	-	6
No. of work accidents* (total for Bazan Group)						
Company employees	-	-	-	-	-	28
Contract workers	-	-	-	-	-	19
All employees	-	-	-	-	-	47
No. of accidents - IR* (Israel)						
Company employees	2.9	1.2	1.2	0.62	0.49	1.79
Contract workers	1.9	1.8	1.34	0.36	1.26	1.15
All employees	2.4	1.5	1.26	0.53	0.78	1.49
No. of accidents - IR* (The Netherlands)						
Company employees	-	-	-	-	-	3.5
Contract workers	-	-	-	-	-	14
All employees	-	-	-	-	-	7
Accident rate (Bazan Group total)						
Company employees	-	-	-	-	-	1.85
Contract workers	-	-	-	-	-	1.42
All employees	-	-	-	-	-	1.65
Average days of absence due to safety incidents (Company employees) – SR*						
Israel	7	18	13	23	27	17.46
The Netherlands	-	-	-	-	-	2.5
Total for Bazan Group	-	-	-	-	-	16.39

* Injury rate (IR) - Weighted number of accidents per 200,000 hours of work.
Reporting on the number of workplace accidents, the average incident rate of work accidents (IR), and the severity rate of work absences (SR) are reported according to the guidelines of the Occupational Safety and Health Administration (OSHA) in the United States.

GRI Index

Indicator no.	Indicator	Source	Location
The Organization and Its Reporting Practices			
2-1	Organizational details	ESG Report	p. 12-15
2-2	Entities included in the organization's sustainability reporting	ESG Report	p. 15, 106
2-3	Reporting period, frequency and contact point	ESG Report	p. 8, 106
2-5	External assurance	ESG Report	p. 107-109
2-6	Activities, value chain and other business relationships	ESG Report	p. 16-25
2-7	Employees	ESG Report	Page 114
2-8	Workers who are not employees	ESG Report	Page 114
Governance & Ethics			
2-9	Governance structure and composition	ESG Report	p. 98-99
2-10	Nomination and selection of the highest governance body	Periodic Report for 2022	Part D Additional Details about the Corporation Regulation 26, p. 11-18
2-11	Chair of the highest governance body	Periodic Report for 2022	Part D Additional Details about the Corporation Regulation 26, p. 11-18
2-12	Role of the highest governance body in overseeing the management of impacts	ESG Report	p. 100
2-13	Delegation of responsibility for managing impacts	ESG Report	p. 100
2-14	Role of the highest governance body in sustainability reporting	ESG Report	p. 100
2-17	Collective knowledge of the highest governance body	ESG Report	p. 100
2-19	Remuneration policies	Periodic Report for 2022	Chapter A Description of the Corporation's Business Page 62
2-20	Process to determine remuneration	Periodic Report for 2022	Chapter A Description of the Corporation's Business Page 62

GRI Index

Indicator no.	Indicator	Source	Location
Strategy, Policies and Practices			
2-22	Statement on sustainable development strategy	ESG Report	p. 6-9
2-23	Policy commitments	ESG Report	p. 95-98
2-24	Embedding policy commitments	ESG Report	p. 95-98
2-26	Mechanisms for seeking advice and raising concerns	ESG Report	p. 95-98
2-27	Compliance with laws and regulations	ESG Report Periodic Report for 2022	p. 95 Part C Consolidated financial statements Note 20, p. 71-84
2-28	Membership associations	ESG Report	p. 74-76
Stakeholder Engagement			
2-29	Approach to stakeholder engagement	ESG Report	p. 34-35
Employment & OHS			
2-30	Collective bargaining agreements	ESG Report	Page 83.
Materiel Topics			
3-1	Process to determine material topics	ESG Report	p. 32-33
3-2	List of material topics	ESG Report	p. 32-33
Economic Preformences			
201-1	Direct economic value generated and distributed	Periodic Report for 2022	Chapter C Consolidated financial statements p. 6-13
201-3	Defined benefit plan obligations and other retirement plans	Periodic Report for 2022	Chapter C Consolidated financial statements Note 3, p. 32-34 Note 18, p. 68
Indirect Economic Impacts			
203-2	Significant indirect economic impacts	ESG Report	p. 72-73
Anti-Competitive Behavior			

GRI Index

Indicator no.	Indicator	Source	Location
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Periodic Report for 2022	Chapter C Consolidated financial statements Note 20, p. 73-86
Energy			
302-1	Energy consumption within the organization	ESG Report	p. 50-51, 110
302-4	Reduction of energy consumption	ESG Report	p. 47-49
Water and Effluent			
303-1	Interactions with water as a shared resource	ESG Report	p. 54-59
303-2	Management of water discharge-related impacts	ESG Report	p. 54-59, 112
303-3	Water withdrawal	ESG Report	p. 54-59, 112
303-4	Water discharge	ESG Report	p. 54-59, 112
303-5	Water consumption	ESG Report	p. 54-59, 112
Emissions			
305-1	Direct (Scope 1) GHG emissions	ESG Report	p. 46-47, 112
305-2	Energy indirect (Scope 2) GHG emissions 305-2	ESG Report	p. 46-47, 112
305-3	Other indirect (Scope 3) GHG emissions	ESG Report	p. 46-47, 112
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	ESG Report	p. 38-42, 112
Waste			
306-1	Waste generation and significant waste-related impacts	ESG Report	Page 60-61
306-3	Waste generated	ESG Report	p. 60-61, 112
306-4	Waste diverted from disposal	ESG Report	p. 60-61, 112
306-5	Waste directed to disposal	ESG Report	p. 60-61, 112
Employment			
401-1	New employee hires and employee turnover	ESG Report	Page 112
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	ESG Report	Page 84
401-3	Parental Leave	ESG Report	Page 114

GRI Index

Indicator no.	Indicator	Source	Location
Occupational Health & Safety			
403-1	Occupational health and safety management system	ESG Report	p. 86-91
403-2	Hazard identification, risk assessment, and incident investigation	ESG Report	p. 86-91
403-5	Worker training on occupational health and safety	ESG Report	p. 86-91
403-6	Promotion of worker health	ESG Report	Page 91
403-9	Work-related injuries	ESG Report	p. 87, 91, 116
Training & Education			
404-1	Average hours of training per year per employee	ESG Report	Page 84
404-2	Programs for upgrading employee skills and transition assistance programs	ESG Report	Page 84
404-3	Percentage of employees receiving regular performance and career development reviews	ESG Report	Page 84
Diversity and Equal Opportunity			
405-1	Diversity of governance bodies and employees	ESG Report	p. 83, 112
405-2	Ratio of basic salary and remuneration of women to men	ESG Report	Page 83

SASB Sector Level: OIL & GAS – Refining & Marketing

Table 1. Sustainability Disclosure Topics & Accounting Metrics

SB DISCLOSURE TOPIC	DESCRIPTION	CATEGORY	UNIT OF MEASURE	CODE	RESPONSE
Greenhouse Gas Emissions	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations	Quantitative	metric tons (t) CO2-e, percentage (%)	EM-RM-110a.1	ESG Report, P.46-47,112
	Discussion of long-term and short-term strategy or plan to manage Scope 1 and lifecycle emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	EM-RM-110a.2	ESG Report, P.46-47
Air Quality	Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SOx, (3) particulate matter (PM10), (4) H2S, and (5) volatile organic compounds (VOCs)	Quantitative	Metric tons (t)	EM-RM-120a.1	ESG Report, P.38-42,112
	Number of refineries in or near areas of dense population	Quantitative	number	EM-RM-120a.2	1
water management	(1) Total fresh water withdrawn, (2) percentage recycled, (3) percentage in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m³), Percentage (%)	EM-RM-140a.1	ESG Report, P.56-67, 112
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	number	EM-RM-140a.2	0
Hazardous Materials Management	Amount of hazardous waste generated, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	EM-RM-150a.1	ESG Report, P.62-63,112
	(1) Number of underground storage tanks (USTs), (2) number of UST releases requiring cleanup, and (3) percentage in states with UST financial assurance funds	Quantitative	Number, Percentage (%)	EM-RM-150a.2	0
Workforce Health & Safety	(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR) for (a) direct employees and (b) contract employees	Quantitative	Rate	EM-RM-320a.1	as of the date of this report publication, the group doesn't disclose this data publicly
	Discussion of management systems used to integrate a culture of safety	Discussion and Analysis	n/a	EM-RM-320a.2	ESG Report, P.87-92

SB DISCLOSURE TOPIC	DESCRIPTION	CATEGORY	UNIT OF MEASURE	CODE	RESPONSE
Product Specifications & Clean Fuel Blends	Percentage of Renewable Volume Obligation (RVO) met through: (1) production of renewable fuels, (2) purchase of “separated” renewable identification numbers (RIN)	Quantitative	Percentage (%)	EM-RM-410a.1	Not applicable; We do not produce renewable fuels yet.
	Total addressable market and share of market for advanced biofuels and associated infrastructure	Quantitative	Reporting currency, Percentage (%)	EM-RM-410a.2	Not applicable; We do not produce renewable fuels yet.
Pricing Integrity & Transparency	Total amount of monetary losses as a result of legal proceedings associated with price fixing or price manipulation	Quantitative	Reporting currency	EM-RM-520a.1	This is not relevant due to local laws and regulations in areas of operation
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion and Analysis	n/a	EM-RM-530a.1	At this moment, Bazan is not able to report on this topic and is planning to do so in future reports.
Critical Incident Risk Management	Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1) and lesser consequence (Tier 2)	Quantitative	Rate	EM-RM-540a.1	Data is unavailable at this time
	Challenges to Safety Systems indicator rate (Tier 3)	Quantitative	Rate	EM-RM-540a.2	Data is unavailable at this time
	Discussion of measurement of Operating Discipline and Management System Performance through Tier 4 Indicators	Discussion and Analysis	n/a	EM-RM-540a.3	Data is unavailable at this time

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE	RESPONSE
Refining throughput of crude oil and other feedstocks	Quantitative	Barrels of oil equivalent (BOE)	EM-RM-000.A	71,500,000
Refining operating capacity	Quantitative	Million barrels per calendar day (MBPD)	EM-RM-000.B	0.197

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