MAGAL SOLUTIONS

Carbon Footprint Report 2021

Contents

1. From the Chairman of the Board

As Chairman of Magal Security Systems, I am honored to endorse the company's first sustainability report.

On the one hand, this report was created, in the aftermath of the COVID-19 epidemic. On the other hand, this is a year of connections and regeneration that brings new integrated business opportunities for Aeronautics Ltd as a whole, and for Magal Security Systems in particular.

This report demonstrates Magal's dedication to the existing safety and environmental policies at both the national and global levels and it serves as a foundation for continued success and improvement in our operations.

I want to thank everyone who has contributed to this project.

I believe that all of us, all Magal employees, will be able to achieve the goals and challenges of tomorrow and lead Magal to rebirth, prosperity and success, and for this, I extend my sincere gratitude and blessings.

Mr. Moshe Elaazar

Chairman of the Board of Directors

2. From the CEO

I am pleased to present the sustainability report for 2021, Magal Security System's first sustainability report.

The year 2021 marks a significant milestone in Magal's history; it is the year Magal joined Aeronautics Group. Magal presented new national and worldwide policies and goals in principle, as well as in the areas of safety, quality, sustainability, and the environment in particular, under this new framework.

This year, which also presented us with a challenging business reality in the form of the COVID-19 epidemic, provided us with a quick, unique, and rare look at the issue of sustainability and the environment, in the configuration of the environmental recovery that resulted from massive reductions in emissions and pollutants from industry, national, private, and public sources.

It was also a wake-up call and clear evidence that reducing and monitoring carbon emission activities benefits the ecosystem on a large scale.

Magal Security Systems opted to publish this sustainability report in accordance with the United Nations' Sustainable Development Goals (SDGs) on areas deemed as significant to Magal.

I am honored to be leading the change and renewal of the company's policy in general, and in the field of safety, sustainability, and the environment in particular; this policy is no longer a task or a project imposed on the company, management, and employees, but rather a manner and method in which all of the company's individuals act and perform their work in a consistent and continuous manner.

The report will be published on the company's website and will be available to the general public and all stakeholders.

Arnon Bram

CEO, Magal Security Systems

3. Summary

Magal Security Systems is pleased to present the 2021 Carbon Footprint Report, the first such report completed for the company.

In recent years, Magal set a goal to reduce its environmental impact and now we are taking it to the next level, as explained with more detail in our sustainability report.

The first step toward reducing emissions wisely is to measure one's own emissions, since you cannot manage what you do not see.

The company, which in 2021 had 117 full-time employees in Israel, provides physical and virtual security & safety solutions worldwide, enabling governments and corporations to predict, manage, and mitigate threats, streamline operations, and to ensure business continuity, safety, and operational efficiency.

This report has been prepared in full accordance with the widely accepted Greenhouse Gas Protocol as well as ISO 14064-1:2018 standards. The relevant emitting activities covered in this carbon footprint report for Magal include scope 1 and 2.

In 2021, the total GHG emissions for 2021 at Magal were a total of 988 tons of CO2eq. Our direct scope 1 GHG emissions were 646 tons CO2eq, while our indirect scope 2 GHG emissions were 342 tons CO2eq. The total amount of GHG emissions coming from operations in Israel for 2021 was 858-ton CO2eq which comprises about 87% of the total scope 1&2 carbon footprint.

The activity with the highest impact is the transportation under scope 1, which is caused by fuel usage. The activity accounts for more than 50% of the total emission in Israel in 2021 (see table 1) and constitutes a big opportunity for emission reduction in the following years.

Each subsidiary that Magal operates in has a different carbon intensity (kg CO2eq) for every kWh of electricity purchased. The intensity varies from 0.295 in Spain to 1.39 in India. The variation reflects a huge factor of 4.7 between the countries.

General information	
Company	Magal Security Systems
Internal Quality, Health, Safety, Environment (QHSE)	Mr. Itzhac Touito
Scope	Scopes 1 and 2 (Greenhouse Gas Protocol)
System boundary	All activities included in scope 1 and 2 in Israel, Mexico, India, Romania and Spain
Our Business	Magal Security Systems provides physical and virtual security & safety solutions worldwide. Designing, implementing, and maintaining some of the world's most complex and interconnected security & safety projects, Magal combines integration, project management, software development, and sensor engineering with extensive experience and in-house R&D to deliver advanced end-to-end solutions that streamline operations and ensure business continuity, safety, and operational efficiency. The company's diverse portfolio includes Seaports, Oil & Gas, National Borders, and Strategic Sites (Airports, Govt. Buildings, Critical Infrastructure, Correctional Facilities, Stadiums and Arenas).
Standard for calculation	• ISO 14064-1:2018 specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals. • GHG Protocol - A Corporate Accounting and Reporting Standard • GHG Protocol Scope 2 Guidance
Methodology for validation	Internal validation by an experienced consultant (KVS).
Accounting period	January 1, 2021 - December 31, 2021
Magal carbon footprint	988 tons of CO2eq

Table 1 – Key Performance Indicators in 2021

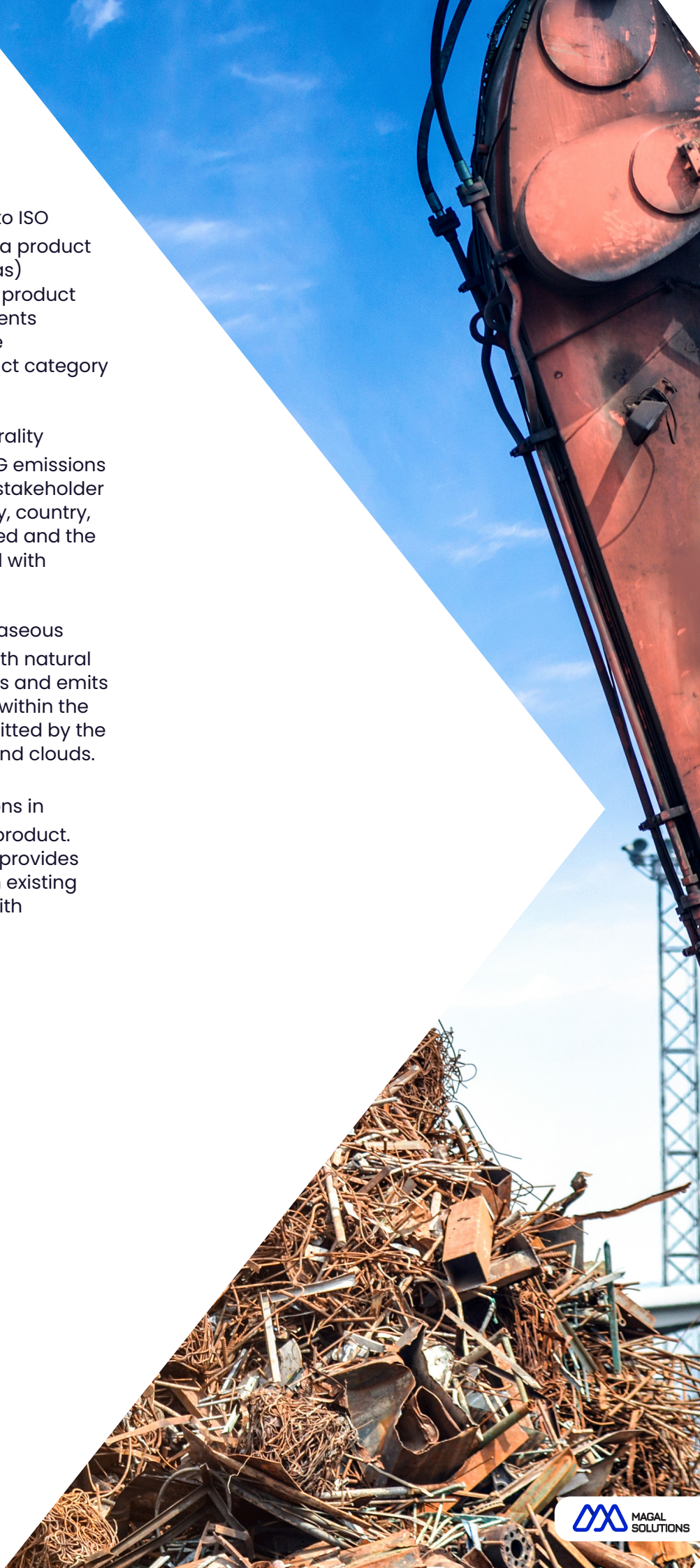
3.1. De nitions

Carbon footprint - According to ISO 14067:2018 the carbon footprint of a product is the sum of GHG (greenhouse gas) emissions and GHG removals in a product system expressed as CO2 equivalents (CO2eq) and based on a life cycle assessment using the single impact category of climate change.

Carbon neutral – Carbon neutrality describes a state in which the GHG emissions released to the atmosphere by a stakeholder (individual, organization, company, country, etc.) have been reduced or avoided and the remaining ones are compensated with carbon credits.

GHG (greenhouse gas) - A gaseous constituent of the atmosphere, both natural and anthropogenic, which absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds.

Avoided emissions - Reductions in emissions caused indirectly by a product. Specifically, use of a product that provides the same or similar function as an existing product in the marketplace, but with significantly less GHG emissions.



4. Introduction

4.1. About the Company

Who we are

Magal Security Systems provides physical and virtual security & safety solutions worldwide, enabling governments and corporations to predict, manage, and mitigate threats, streamline operations, and to ensure business continuity, safety, and operational efficiency.

Developing, deploying, and maintaining some of the world's most complex and interconnected security & safety projects, Magal combines systems integration, project management, software development, and sensor engineering with extensive experience to deliver advanced end-to-end, turnkey solutions.

Magal was founded in 1965 as a part of the Israeli Aerospace Industry to design security barriers. In 1993, it was privatized and listed on NASDAQ. Magal was acquired by Aeronautics Ltd., a RAFAEL subsidiary, in February 2021.

Our Vision

Creating a safer, more secure, and sustainable environment, to efficiently operate the most critical assets.

Our Mission

Fusing operational data to create unified eco-systems, empowering our customers to be proactive with actionable insights to achieve what matters most - security, safety, and efficiency.

Our Values

- **Creativity & Innovation**

  Innovation requires creative thinking, constant development, and innovative solutions to best accommodate our customers' needs.

- **A Trusted Partner**

  We believe that creating the best end-to-end solutions is based on long-term partnerships, understanding our customers' specific needs to foresee new ones, and being there for them every step of the way.

- **Agility & Adaptability**

  We are results-driven with an unrelenting determination for the success of our clients.

  Equipped with the ability to adapt, we maintain effectiveness in a continuously changing environment. No matter the circumstances - we always find a way.

- **Excellence**

  We bring 50 years of excellence in creating end-to-end solutions, transforming uncertainty into a well-managed project.

- **Customer Centricity**

  Being customer focused is deeply rooted in our mindset and DNA.

  We continuously seek to provide added value through tailored solutions, ongoing support, knowledge transfer and accessible data.

Business Sectors

The company's diverse portfolio includes National Borders, Seaports, Oil & Gas and Strategic Sites (Airports, Govt. Buildings, Critical Infrastructure, Correctional Facilities, Stadiums and Arenas).

- **Borders:**

  Monitoring and securing national borders by developing an operational concept and deploying a multi-layered solution that provides early warning, smart fence intrusion protection, surveillance, interception, and deterrence along the border and at checkpoints.

- **Seaports:**

  Integration of all systems and subsystems into a single unified control and control platform, which streamlines all operations and provides security, safety, operational optimization, and operational efficiency to the entire seaport and terminals.

- **Oil & Gas:**

  HSE integrated security solutions, maintaining public health and a safe environment, to enhance safety response of the critical sites and infrastructure, in order to minimize downtime and maximize production efficiency.

- **Critical & Strategic Sites:**

  Perimeter security of complex, strategic and sensitive national sites and infrastructures, such as airports, prisons, military bases, government facilities, etc.

4.2. Objectives

Magal's objective is to measure and quantify Scope 1 and 2 emissions of the company's global operations and to adhere to the highest standard of sustainability reporting used by international companies. As a company that preaches sustainability, Magal aims to act as an example for other businesses in the security and technology field and inspire companies within Israel and around the globe to declare their carbon footprint.

4.3. Time Period

The time period for this collection was January 1st through December 31st, 2021. As this was the first year the company conducted a GHG inventory report, it will serve as the baseline for future GHG inventory reporting.

5. Methodology

This accounting and reporting have been conducted in accordance with ISO 14064-1:2018, The GHG Protocol Corporate Accounting and Reporting Standard, and The GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

These standards detail the principles and requirements for reporting greenhouse gas inventories and provide guidance on quantifying an organization's GHG emissions and removals in order to ensure proper reporting and management.

5.1. Functional Unit

Tons Carbon dioxide equivalents, CO2eq, is the unit of comparison for the radiative forcing of a GHG to carbon dioxide. It is calculated by using the mass of a given greenhouse gas and multiplying it by its 100-year global warming potential. All Magal's emissions will be reported in tons of CO2eq (1000 kg).

5.2. Data Collection and Quality

Data was collected using questionnaires from the Israel plant, offices and each subsidiary office worldwide. The data in the questionnaires collected from invoices provided the measurement of company expenditures, from which quantities of emission activities were derived. These were then converted into tons of CO2eq, in order to accurately quantify GHG emissions from indirect emissions. To calculate the emissions from electricity, the number of kWh was converted to kg CO2 using the following factors for each country:

- Mexico: 0.609
- Romania: 0.381
- Spain: 0.295
- Israel: 0.543
- India: 1.390

They are based on national coefficients from sources such as formal research reports (Samuel Neaman Institute), or calculated based on the electricity generation mix by fuel of the above countries based on public sources such as Our World in Data, Statista, Ecoinvent and other databases.

All the emission factors are updated and relevant to the studied system. Purchased energy has been calculated according to a market-based approach according to GHG Protocol Scope 2 Guidance (2014).

6. Uncertainty Margin and Sensitivity Analysis

This section presents the quality of the data used for the calculation. The data for the consumed electricity and fuels is based on invoices and has high certainty.

The uncertainty of the data derived from the Ecoinvent database is described comprehensively on the website (see references).

Another source of uncertainty is due to the fact that for most countries the electricity generation mix was not available for the year 2021 and we, therefore, used the most recent data available for each country as an approximation of the year 2021's electricity generation mix: Mexico 2020, Spain 2019, India 2020 and Israel 2019. We are taking into account that for 2021 the data might differ slightly.

7. Boundaries

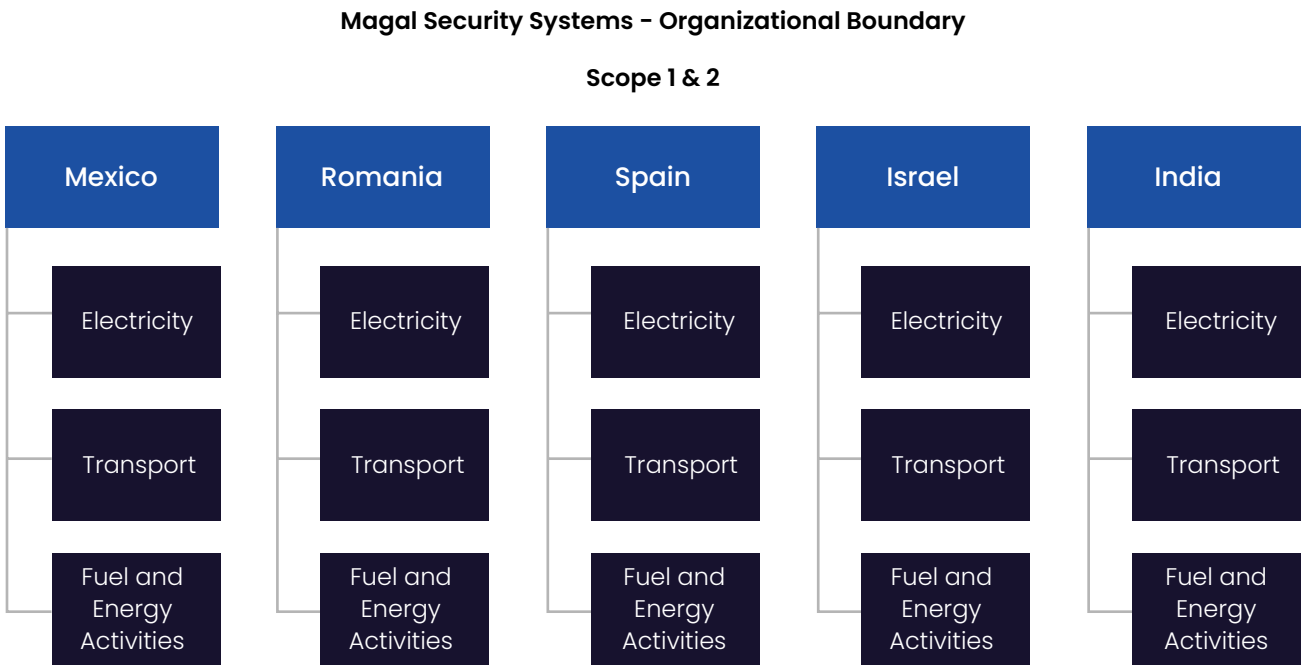


Figure 1 - Company Organizational Boundary

The figure above shows the system boundaries used for the analysis. As can be seen in the figure, the main activities included under scope 1 are the fuels used for transportation with vehicles owned by Magal in 2021. In addition, there are low amounts of natural gas used for heating in Romania. The rest of the countries do not burn fuels directly for heating.

CFC's and other coolants were included in the boundary, but there is no data available to include in the results.

Magal Security Systems use Scope 1 and Scope 2 emissions definitions that are consistent with the Greenhouse Gas (GHG) Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) (2015) (available at https://ghgprotocol.org/). This standard defines Scope 1 greenhouse gas (GHG) emissions as direct GHG emissions from facilities owned or controlled by an operator, including fuel use, onsite electricity generation, process emissions, and land management. GHG emissions from the generation of electricity, heat, or steam brought in from third parties are defined as Scope 2 (indirect emissions).

8. Results

The global total GHG Emissions produced by Magal Security Systems was 988 tons of CO2eq, where 646 tons of CO2eq are from Scope 1, and 342 tons of CO2eq from Scope 2.

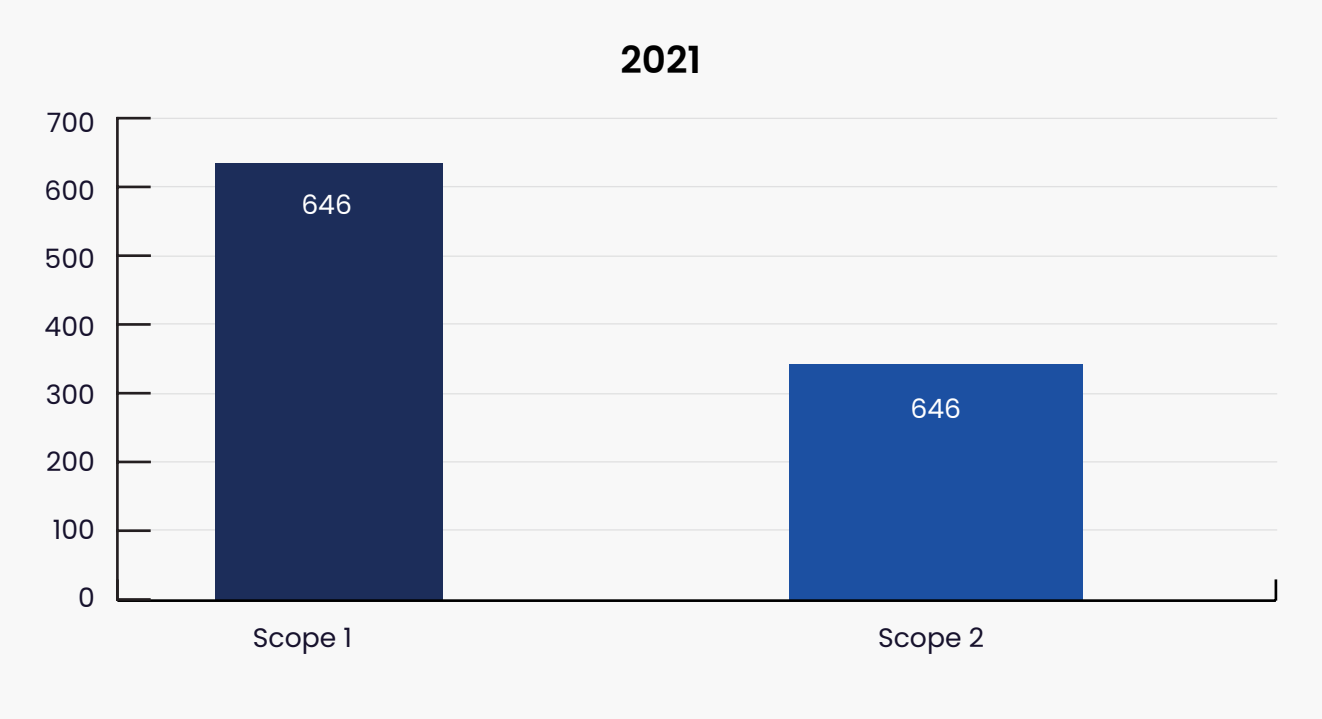


Figure 2 - Global GHG Emissions by Scope

Location	Scope 1 (tons of CO2e)	Scope 2 (tons of CO2e)	Total GHG emissions per location (tons of CO2e)
TOTAL	646 tons of CO2	342 tons of CO2	988 tons of CO2
Israel	556 tons of CO2	301 tons of CO2	858 tons of CO2
Mexico	57 tons of CO2	18 tons of CO2	76 tons of CO2
India	5 tons of CO2	16 tons of CO2	21 tons of CO2
Spain	13 tons of CO2	3 tons of CO2	16 tons of CO2
Romania	12 tons of CO2	3 tons of CO2	16 tons of CO2

Table 1 - Total GHG emissions per location

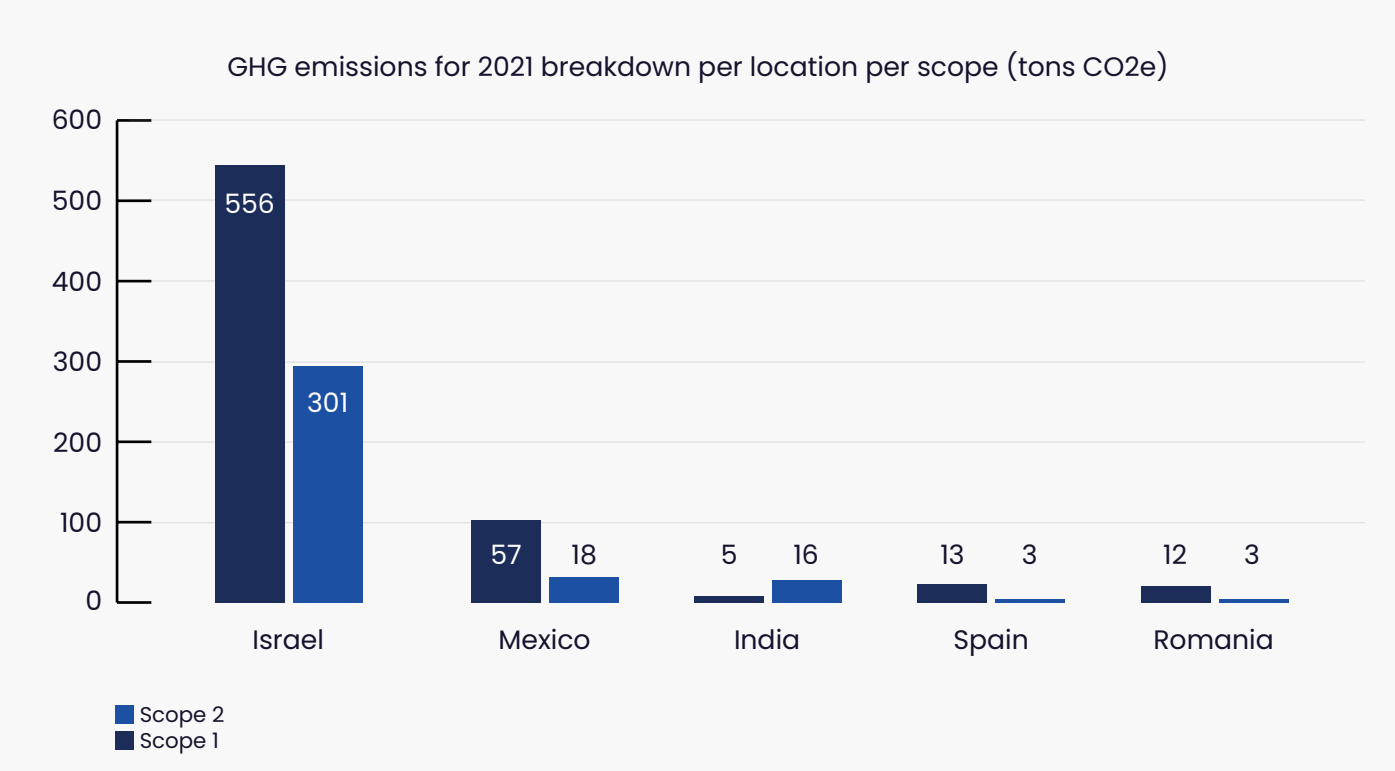


Figure 3: Global GHG emissions for 2021 breakdown per location per scope

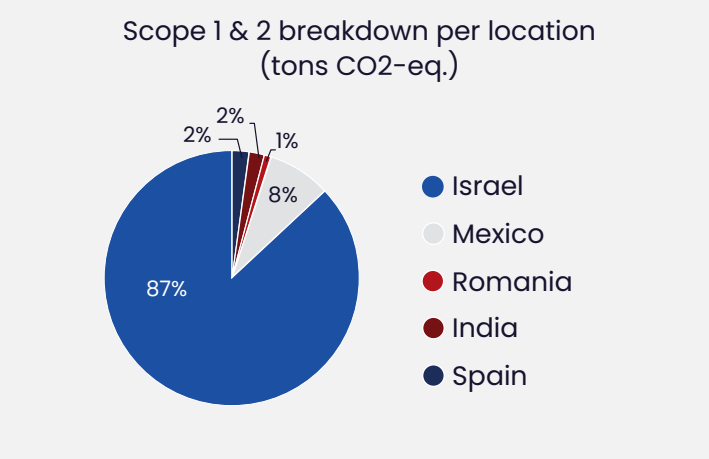


Figure 4 – Global scope 1 & 2 breakdown per locationlocation

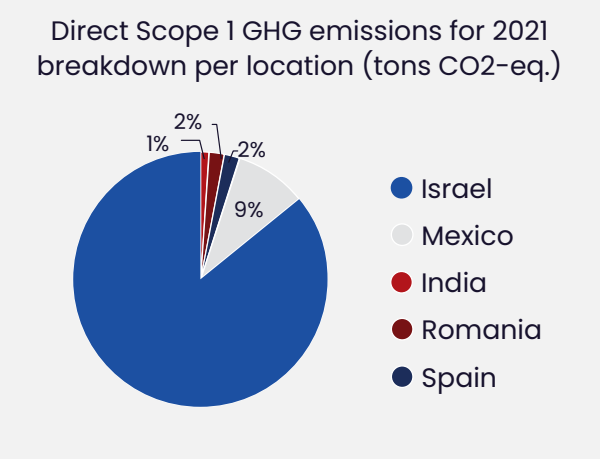


Figure 5 - Direct scope 1 GHG emissions for 2021 breakdown per location

As predicted, the largest source of emissions for Magal Security Systems is due to scope 1. The major contributor to this result is the Israel operation as the production plant where they assemble their different products is located there, as well as several offices for commercial and service use, where more electricity is utilized. For subsidiaries located in Mexico, Romania, Spain, and India, there are only commercial and services offices.

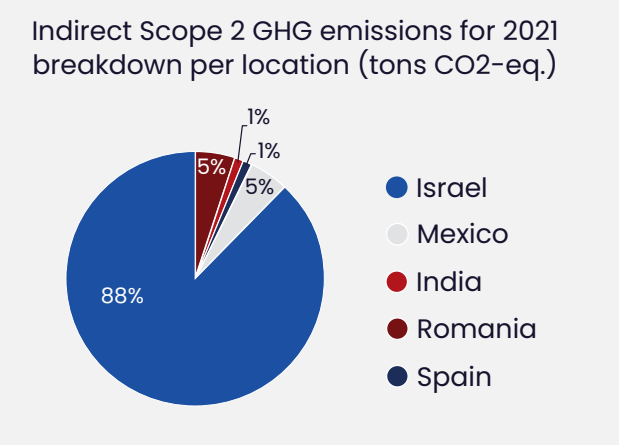


Figure 6 - Indirect scope 2 GHG emissions for 2021 breakdown per location

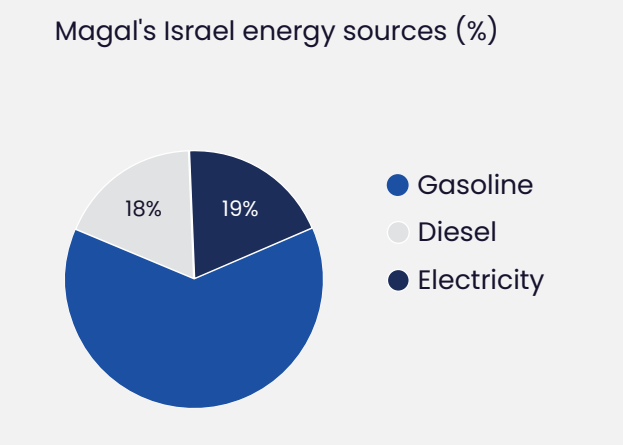


Figure 7 - Magal Israel energy sources

Having assembly operations and production operations in Israel, as well as the high temperatures there in July and August, which leads to a considerable increase in the use of air conditioners, are important factors that cause the high GHG emission levels at the Israel subsidiary.

9. Conclusions and Key Findings

- The process of conducting a carbon footprint for scopes 1&2 of Magal activities has clarified the main sources of carbon emission and will enable Magal to manage and reduce them in the following years.
- Israel has the biggest impact of all countries with 87% of the total carbon footprint, due to the manufacturing, assembling, and most operations being active in Israel.
- The subsidiary with the highest carbon intensity per kWh of consumed electricity is India with 1.39 kg CO2eq/kWh; this value is more than double compared to other countries in Magal's organizational boundary. The carbon intensity is caused mainly due to the high coal content in the electricity generation mix in India.
- The activity with the highest impact is the transportation under scope 1, which is caused by fuel usage. The activity has a share of more than 50% of the total emission in 2021 (see table 1). The emissions are caused by the high usage of vehicles in the operations of Magal in Israel and constitute a big opportunity for emission reduction in the following years.
- The current study can be used as a standardized baseline for the GHG emissions of Magal and any reduction in the following years will be measured according to the 2021 report.

9.1. VERIFICATION

The report was quality checked internally and was not verified by a third party.

10. Resources

1. “Israel Electric Company.” Carbon Dioxide Calculator
2. https://www.iec.co.il/en/pages/default.aspx.
3. Ecoinvent 3.8
4. Database: https://www.ecoinvent.org/home.html
5. GHG Protocol. “Corporate Accounting and Reporting Standard.” 2015, https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf.
6. Electricity mix in India, January-December 2020
7. https://www.iea.org/data-and-statistics/data-product/iea-energy-and-carbon-tracker-2020#documentation
8. Electricity Mix
9. https://ourworldindata.org/electricity-mix
10. Romania distribution of electricity production by source
11. https://www.statista.com/statistics/1236358/romania-distribution-of-electricity-production-by-source
12. Spain electricity generation by source (2019)
13. https://iea.blob.core.windows.net/assets/2f405ae0-4617-4e16-884c-7956d1945f64/Spain2021.pdf
14. Mexico electricity generation by source (2019)
15. https://www.eia.gov/international/analysis/country/mex

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