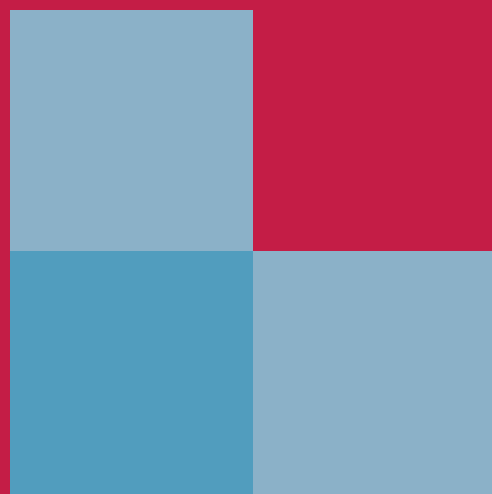
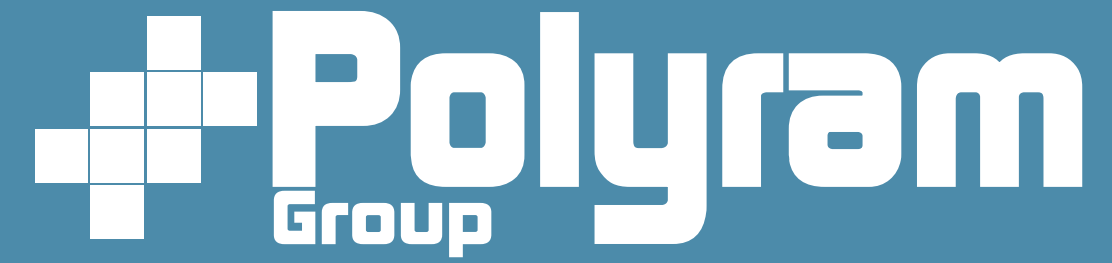




Environmental Report

2022





Environmental Report | 2022

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Introduction

Polyram Plastic Industries LTD (henceforth referred to as “Polyram”) is a leading international supplier of high-performance thermoplastic compounds with production sites spread over three continents offering global availability. Headquartered in Israel, Polyram produces customized thermoplastic for its customers, and includes several subsidiaries such as offices and warehouses which support with distribution. Our products are made to fit the requirements of a range of sectors, depending on each product's purpose. Some examples include the automotive sector, the industrial and packaging industry, and the manufacturing industry.

Polyram is an independent company and went public in November 2020. The company was established in 1986 and has around 370 employees worldwide.

We are constantly striving to reduce the environmental impacts of our products, and of our organization as a whole. In the last few years, Polyram began an extensive Carbon Management campaign, spearheaded by our COO. The campaign, which marks an important step toward addressing climate risks, included a market review, data collection, and a first-time GHG calculation for the company, which was verified by a third party and will be used as a baseline for future emissions targets. We received a B on our 2021 CDP report, the first submission for Polyram, and one of many stages within this Carbon Management program. The CDP disclosure and this Environmental Report are examples of ways in which we are working to improve our transparency. This report, the first of its kind for Polyram, summarizes the key components of our global environmental activities in 2021 and 2022, and outlines our commitment to further expanding such activities in the coming years. Moving forward, we hope to expand this report to include all aspects of an Environmental, Social and Governance (ESG) report.



Ram On - Israel
Headquarters and R&D Center



Gloucestershire - UK



Bad Oeynhausen - Germany

Environmental Governance and Management at Polyram



Environmental management at Polyram is led by upper management. Our Global Chief Operating Officer (COO) is highly involved in customer requests and interactions, and manages relations with many of our primary stakeholders. As part of our Carbon Management campaign, the COO oversaw various stages of Life Cycle Assessment (LCA) projects, assisted with global data collection for the organizational GHG calculations, and was actively involved in preparing Polyram's CDP report.

The upper management is involved in assessing risks and opportunities relating to the environment, using the assessment to guide business strategy, and sets and oversees environmental targets. Our Environmental and Sustainability Manager has been involved in the above projects, as well as maintaining the overall EHS management system, for which Polyram is ISO 14001:2015 certified. In May 2023 we approved a new Environmental Policy, which guides our activities and will be helpful in moving towards more sustainable practices.



Polyram Group Environmental Policy

Our vision

Our vision is to truly incorporate sustainable practices into the world of polymers, creating high-quality products with minimal environmental impact, thereby contributing to a brighter future for ourselves and our entire value chain.

Our mission

Polyram – Group sets its standard for achieving good environmental practice and operating in a responsible manner.

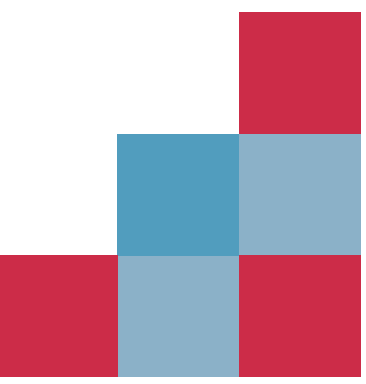
On the organizational level – we commit to minimizing our environmental impact and continually improving our environmental performance as an integral and fundamental part of our business strategy and operating methods.

On the product level – we aim to meet and exceed the expectations of our customers and stakeholders with products that are both high in quality and have the lowest possible carbon footprint.

Our strategic plan to achieve our mission involves the following commitments:

- Manage our production operations to comply with all relevant environmental regulations.
- Monitor and manage our greenhouse gas (GHG) emissions, including Scopes 1, 2 and 3. This includes public disclosure, setting ambitious reduction targets that align with a 1.5°C world and building a plan that will allow us to achieve our targets.
- Increase the use of renewable energy in our operations, striving to reach 100% in the near future.
- Reduce impacts from our operations with respect to the land, water, air and noise pollution, and apply the principles of continuous improvement to protect the environment and local community.
- Reduce waste through reuse and recycling and by purchasing recycled and recyclable products and materials where these alternatives are available, economical and suitable.
- Apply, develop and maintain, appropriate emergency and spill response programmes where significant health, safety or environmental hazards may exist
- Avoid the unnecessary use of hazardous materials and products, seek substitutions where feasible, and take all reasonable steps to protect human health and the environment when such materials are used, stored and disposed of.
- Promote the efficient use of materials and resources throughout our facilities: water, electricity, raw materials and other resources, particularly those that are non-renewable.
- Pre-emptively assess the environmental impact of any new processes or products we intend to introduce and strive to apply the concepts of Design for Environment (DfE).
- Regularly evaluate the environmental risks and opportunities, in particular climate-related issues, and create mitigation plans and management strategies.
- Ensure the involvement and cooperation of our higher management and board members in improving our environmental performance, enabling the implementation of this environmental policy, and keeping environmental action items high on the executive agenda.
- Apply training programs for our staff to raise their awareness of environmental issues and encourage their involvement in improving the group's performance.
- Provide Safety Data Sheets for all our products, while updating and implementing, according to global regulations (e.g. REACH, or other SVHC requirements).
- Communicate our environmental commitment to our clients, customers, supply chain and the public while encouraging them to support it.
- Perform LCA and report our products' carbon footprint to our customers and other stakeholders.





Risks and Opportunities

Our GHG reports from 2021 and 2022 include Scope 1, Scope 2 and Scope 3 emissions, with our activities divided as follows:

At Polyram, we recognize the relevant risks and opportunities associated with our environmental performance. Our risks and opportunities relating to EHS are identified in a process matrix, in which we assign magnitude to the listed risks and opportunities based on the level of severity and the level of control. Our business strategy includes chapters on environmental impact, such as emissions reduction and selection of environmentally friendly materials.

These topics have entered the routine conversation around business planning due to their impact on the company's success as a whole. We have committed to submitting an annual CDP report and will continue to update and report on these risks and opportunities, which are detailed in the CDP report.

Greenhouse gas (GHG) emissions calculation and report

Our GHG reports from 2021 and 2022 include Scope 1, Scope 2 and Scope 3 emissions, with our activities divided as follows:

Scope 1 (direct emissions) - emissions are those from activities owned or controlled by our organization:

Scope 1 (direct emissions) - emissions are those from activities owned or controlled by our organization:

- Fuel consumption
- Refrigeration operating emissions (AC systems for offices, chillers for production)
- Fire suppression systems (extinguishers)
- Maintenance gas consumption

Scope 2 (energy indirect) - emissions released into the atmosphere that are associated with our consumption of purchased electricity, heat, steam and cooling:

- Electricity (generation factor)

The calculation of GHG emissions was conducted according to the GHG Protocol. Emissions were calculated using UK Government conversion factors for GHG reporting (DEFRA), except from CO2 emission factors of electricity generation and T&D, that were based on information provided by the International Energy Agency (IEA), the Association of Issuing Bodies (AIB), and supplier-specific data when applicable. Some material factors were taken from the Ecoinvent database, in order to get a more accurate factor for specific types of materials. Our GHG reports for 2021 and 2022 were verified by a third-party independent auditor in accordance with ISO14064-3 for all Scope 1, Scope 2 and Scope 3 emissions.

Scope 1 (direct emissions) - emissions are those from activities owned or controlled by our organization:

- Electricity (transmission and distribution and well to tank factors – T&D and WTT)
- Employee commuting (company cars and shuttles)
- Water consumption
- Freight goods
- Business Travels

- Paper consumption for printing
- Waste management
- Raw materials consumption for products and packaging



In 2021, our global emissions accounted for a total of 428,190 metric tons (market-based) of CO2-equivalent (tCO2e), and in 2022 a total of 527,685 tCO2e, divided as follows:

Greenhouse gas emissions	tCO2e (market-based)	
	2021	2022
Scope 1	396	453
Scope 2	15,495	20,559
Scope 3	412,299	506,674
Total emissions	428,190	527,685

Emissions breakdown

GHG EMISSIONS OVERVIEW:

For the GHG emissions reports we collected environmental KPIs from all of our major sites, including factories, offices, and storage and distribution centers worldwide. In 2022 we acquired an additional production site, which increased our overall emissions due to the increased levels of production. The largest contributor to our total emissions was the purchase of raw materials, followed by the upstream and downstream distribution of products and materials, both included under scope 3 emissions.

Electricity consumption, scope 2, accounts for 4%, leaving our direct emissions at less than 1%. The following graph shows an overview of GHG emissions distribution per activity type.

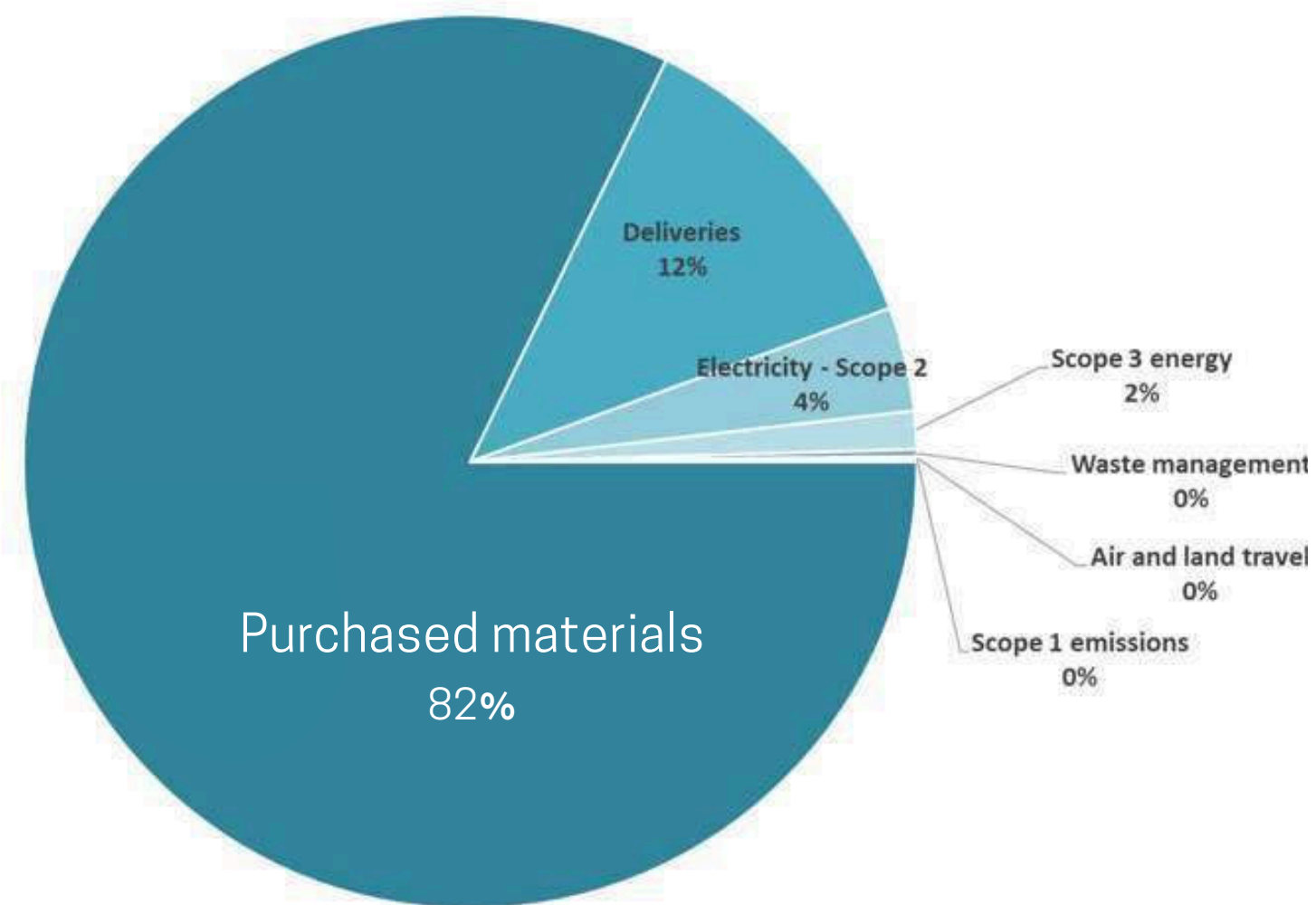
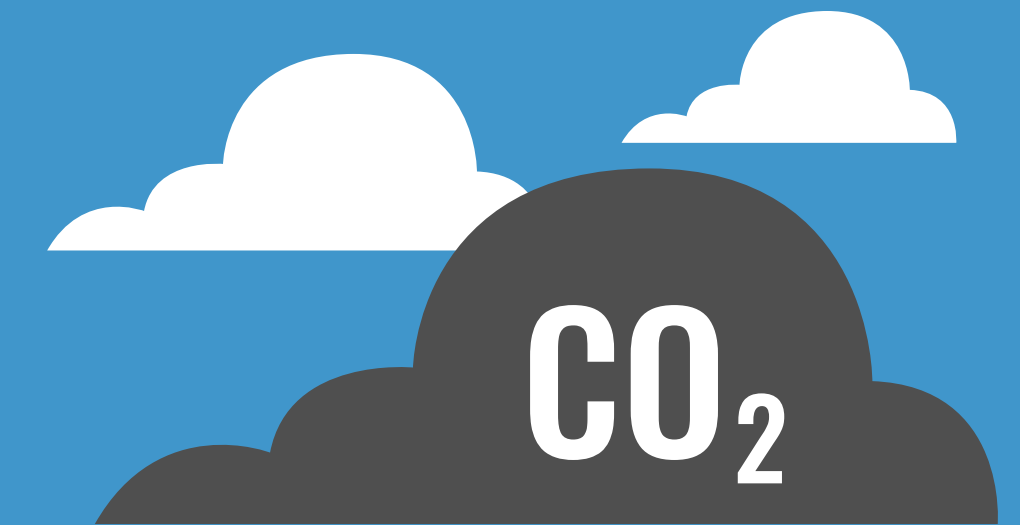


Figure 1: Total 2021 GHG emissions per activity (tCO2e)

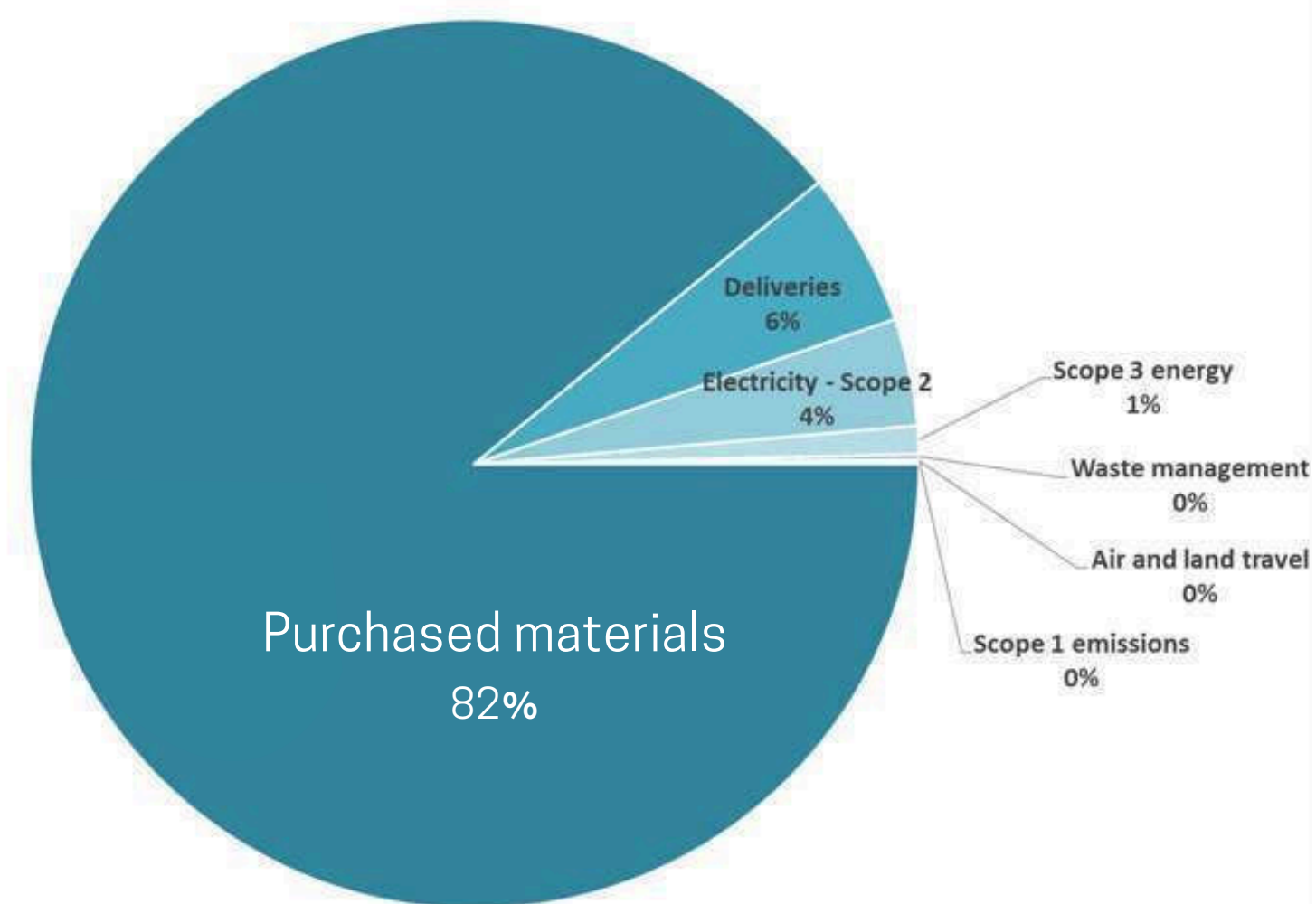
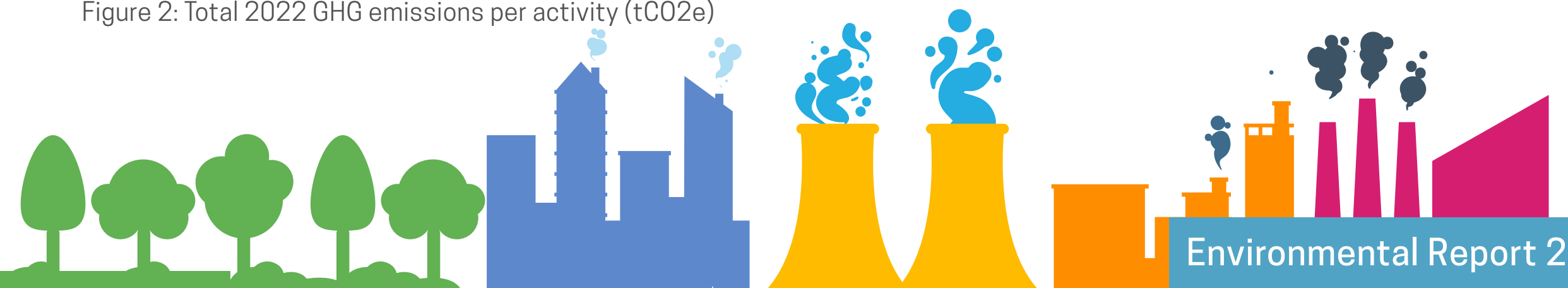


Figure 2: Total 2022 GHG emissions per activity (tCO2e)





SCOPE 1: FUEL CONSUMPTION AND OZONE DEPLETING SUBSTANCES:

Refrigeration gases from air conditioning systems, used in our offices and production lines, and gases from fire suppression systems at some of our sites are defined as per the GHG protocol as ODS – ozone depleting substances. As part of our emissions calculation, we mapped all relevant units from those sources at all our sites. Our calculated emissions are based on gas recharge data.

Our direct emissions (Scope 1) also include emissions from fuel consumption, primarily found at our production facilities. For the GHG reports we collected and reported emissions from diesel consumption – used for emergency generators and forklifts – natural gas for heating, and liquefied petroleum gas (LPG) – used in the production process. There is also a small amount of CO2 used for maintenance. Below is a breakdown of Scope 1 emissions by source:

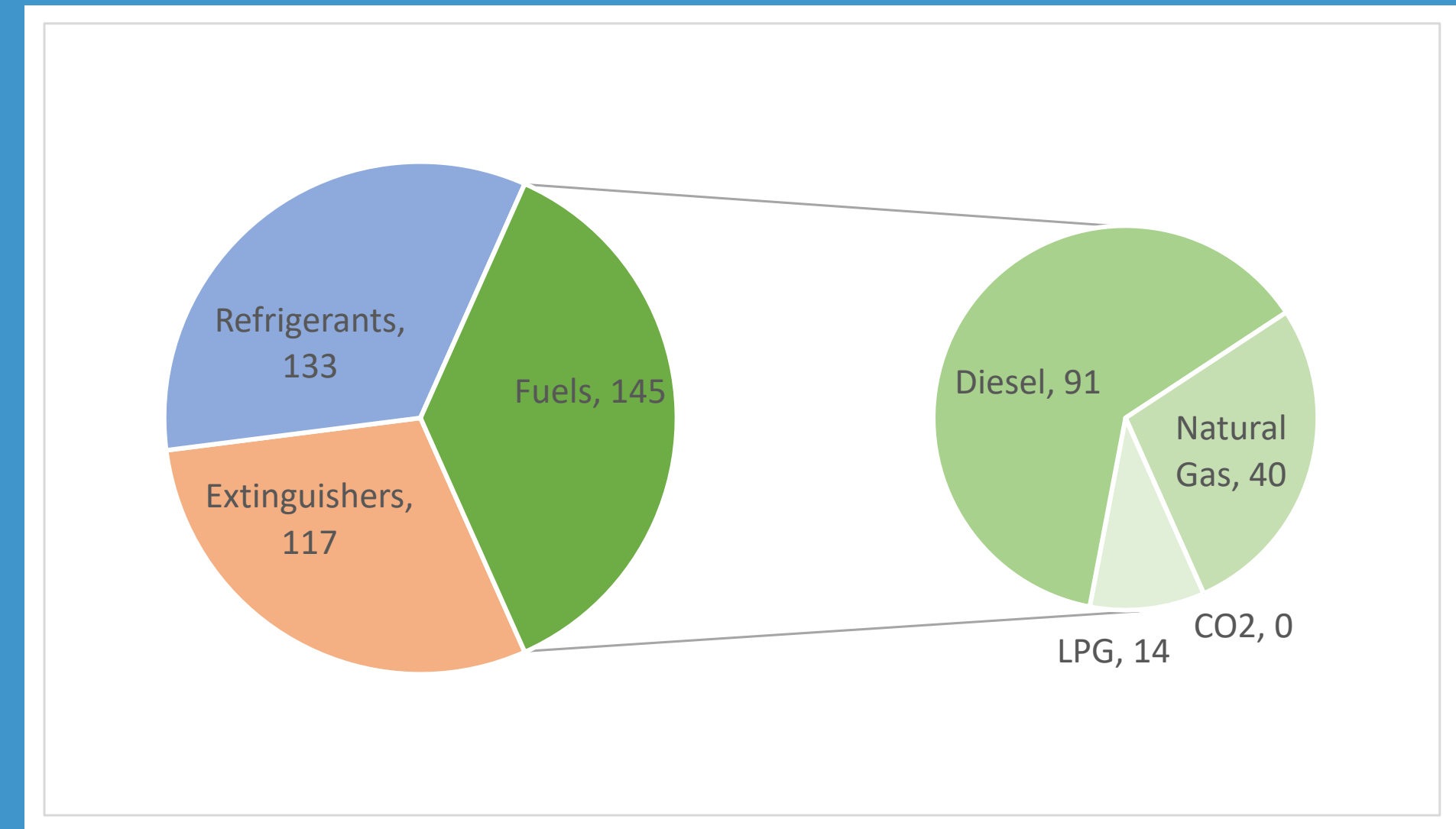


Figure 3: Breakdown of Scope 1 emissions: 2021

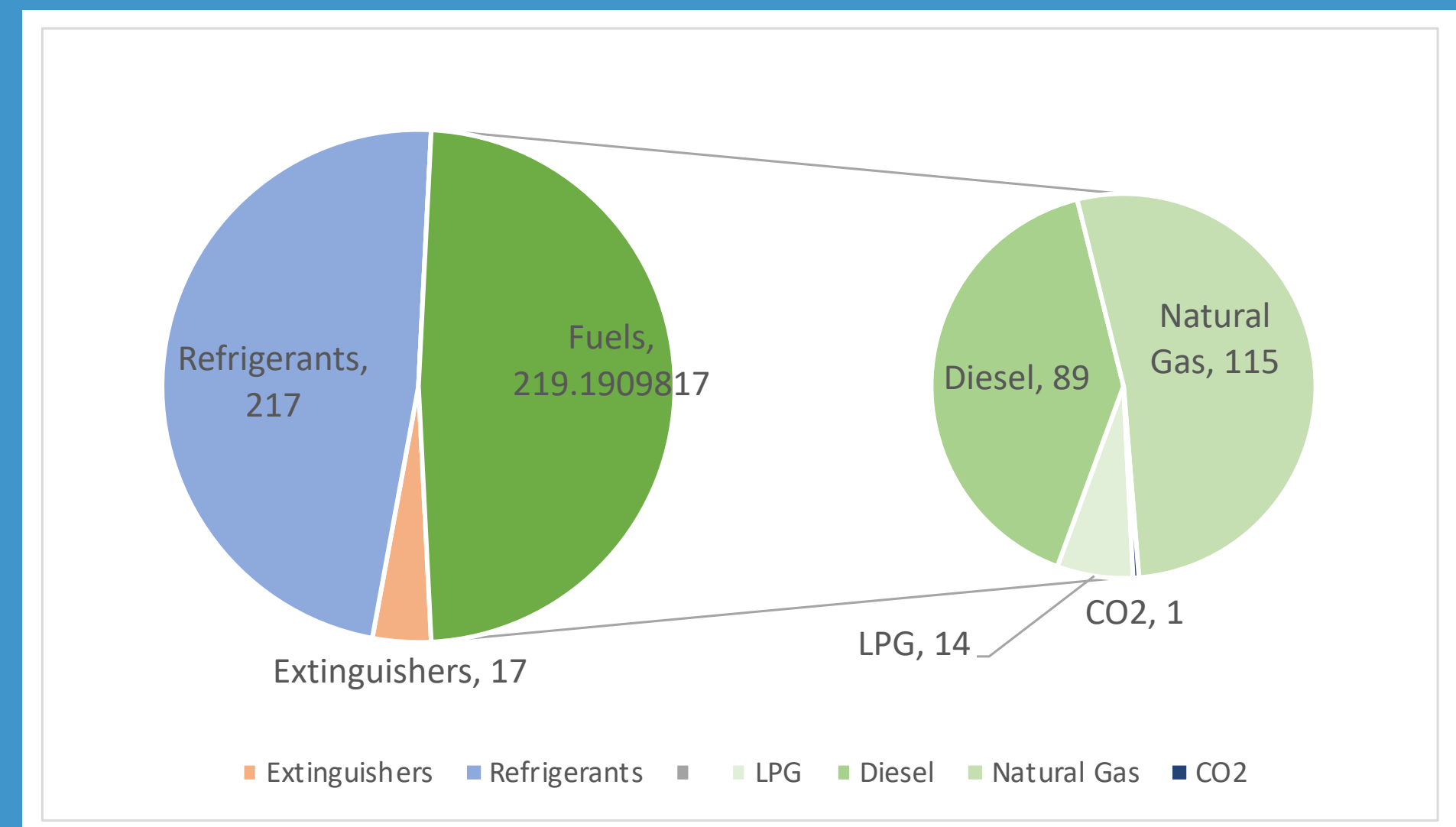


Figure 4: Breakdown of Scope 1 emissions: 2022



SCOPE 2: ELECTRICITY CONSUMPTION:

All of our sites require electricity for basic activity, with higher usage at our production sites. Our global GHG emissions relating to electricity consumption make up 5% of the total emissions, and include both Scope 2 emissions from use and Scope 3 emissions from transportation and distribution (T&D) and well-to-tank (WTT) emissions. T&D emissions are associated with grid losses (the energy loss that occurs in getting the electricity from the power plant to the organizations that purchase it) and WTT emissions reflect the extraction, refining and transportation of primary fuels before their use in the generation of electricity.

The emissions from direct consumption were calculated using both location-based and market-based methodologies, since in some cases electricity was purchased from private providers rather than the local grid. The location-based value, which assumes local emissions factors for each site based on its region, was 16,143 tCO2e in 2021, 648 tons higher than the market-based value of 15,495 tCO2e. This difference is due to the purchase of renewable energy at the UK site, which purchases electricity that is backed by Renewable Energy Guarantees of Origin (REGO) certificates. Using an emissions factor of 0 for the market-based Scope 2 calculation for the UK site reduces the overall Scope 2 emissions.

The Ram On facility in Israel, which makes up over 30% of Polyram's total electricity consumption, has two different sources for their electricity, and as a result uses two different factors. Their electricity is purchased from Rapac Energy, which produces electricity using natural gas and sells to companies via private contracts. In addition, the Ram On facility has solar panels on the roof, which are owned by Rapac and are connected to Polyram with a direct line. Polyram's electricity bills from the solar panels are under "Rapac Solar" and make up a little over 20% of Ram On's electricity consumption. Since this is a direct-line consumption, the electricity from the solar panels is counted as zero-emission energy both for location- and market-based calculations. Using the location-based emissions factor for Israel, the consumption from the panels would add another 1880 tCO2e to Polyram's total 2021 emissions, and another 530 tCO2e in 2022, meaning that on average, the solar panels contribute to a reduction of around 1000 tCO2e or more in annual emissions.

The graph below provides an analysis of electricity consumption per facility, with non-production sites listed together as "other." As seen from the graph, the small subsidiaries comprise less than 1% of the total consumption, with Israel's production sites making up over 70% alone.

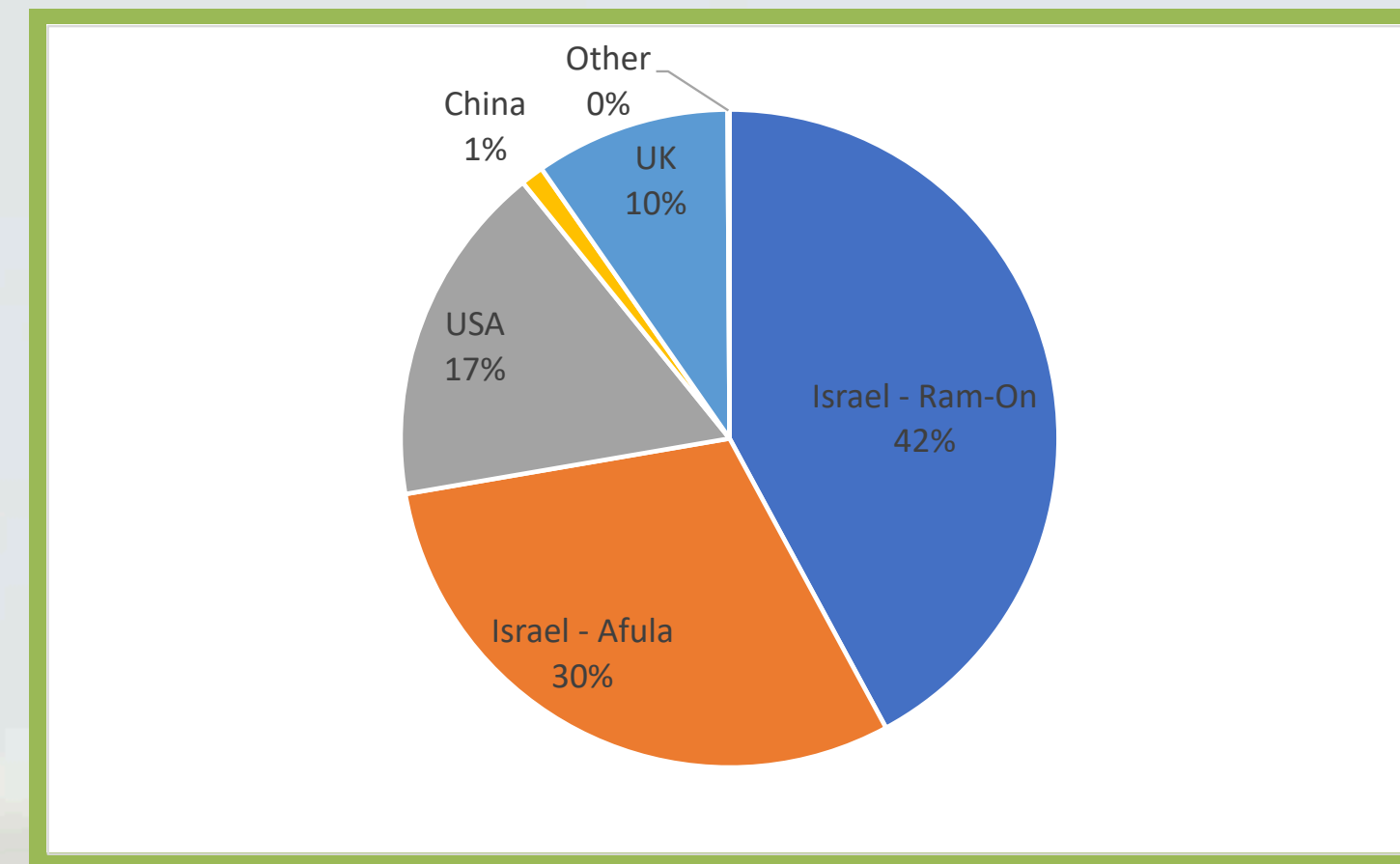


Figure 5: Electricity consumption (kWh) per facility: 2021

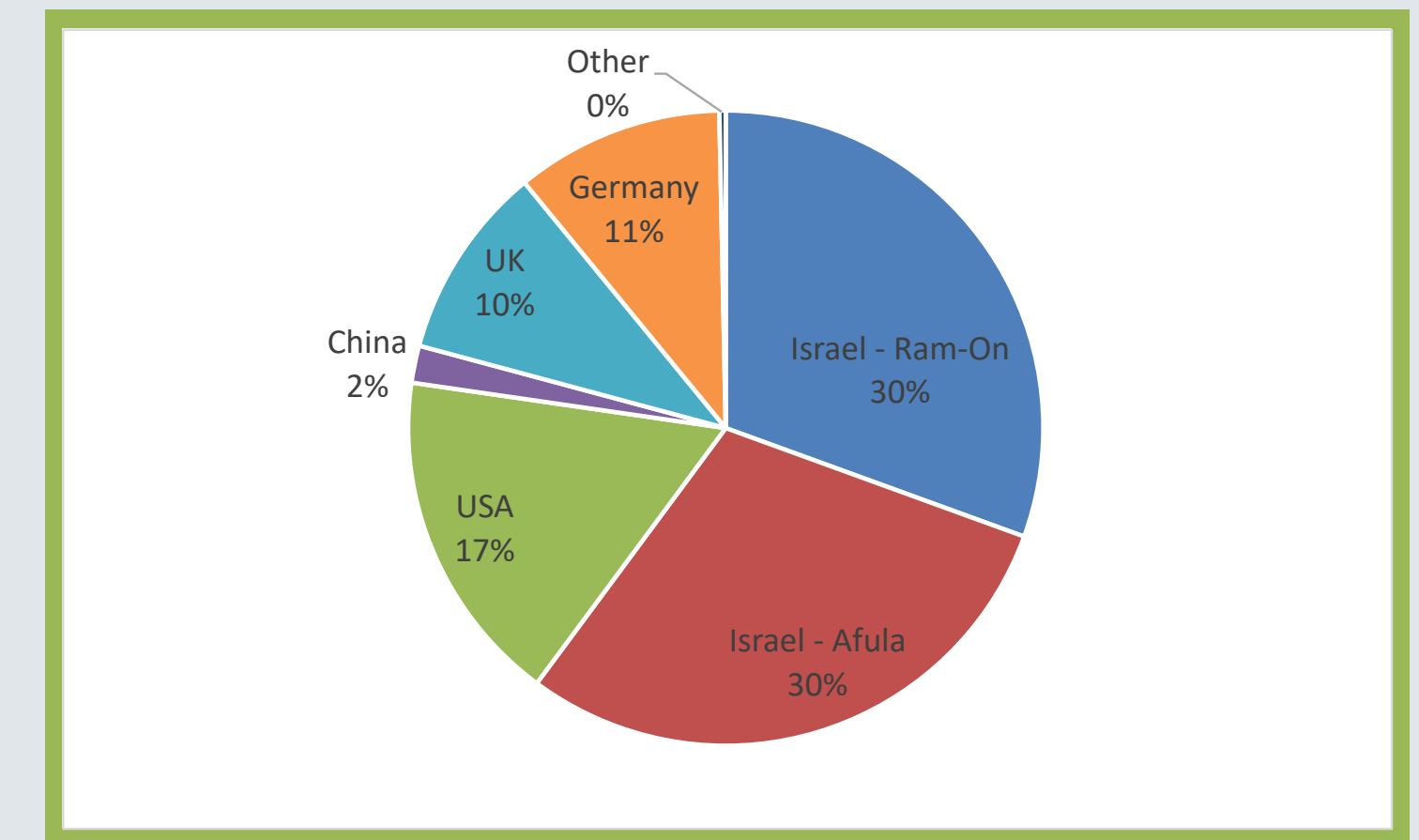


Figure 6: Electricity consumption (kWh) per facility: 2022



SCOPE 3 EMISSIONS:

The most significant contributor to our total emissions is the purchase of raw materials, which made up over 80% of our total emissions in both 2021 and 2022. These emissions were calculated based on the purchase of raw materials, primarily different types of polymers. With around 100,000 tons of materials purchased across all Polyram sites, the production of these materials, though an indirect source for Polyram, plays a significant role in Polyram's emissions. In some situations, different emissions factors were used for a particular material depending on the location of the supplier – European suppliers have lower emissions on average than other countries, and the impact of purchasing from a European supplier is typically lower than that of purchasing from a non-European supplier.

Another significant portion of the emissions comes from the deliveries, including both upstream transportation and distribution (from suppliers to facilities) and downstream transportation and distribution (from facilities to customers). This accounts for 12% of the total 2021 emissions, and 6% in 2022, and was calculated using the distance-based methodology, which involves determining the mass, distance, and mode of each shipment (eg. By truck, cargo ship, etc.), and multiplying by the appropriate mass-distance emission factor for the type of vehicle used.

The rest of the calculated Scope 3 emissions were from fuel and energy activities – T&D and WTT as described above – as well as paper consumption, water consumption, waste generated, employee commuting (by car and by flight), and packaging materials. These activities added another 1-2% to the total emissions.





Targets

In order to work toward our long-term sustainability goals, outlined above in our policy, Polyram has formally approved reduction targets that are in line with the Science Based Targets initiative. Although we have not committed through the SBTi program, we used the SBTi calculator to set Scope 1 and 2 targets based on a 1.5°C scenario – meaning, targets that align with the goal of no more than 1.5°C of global warming by the end of the century. Our long-term targets include a goal of net zero emissions by 2050.

Our calculated science-based targets use 2030 as our target year, and are outlined below:

	2021 (base year)	2030 (target year) – absolute reduction 42%
Scope 1	396	230
Scope 2	15,495	8,987
Scope 1+2	15,891	9,217

In addition to long-term emissions targets, we set annual targets for resource reduction. Our 2022 targets were to reduce our electricity consumption and the amount of waste sent to landfill per ton of production, both by 5% relative to 2021. Two of our production sites achieved their waste targets, and three sites achieved their electricity reduction targets. When looking at data for all of Polyram's production sites combined, the total relative electricity consumption (kWh / ton of product) and relative waste production (kg / ton of product) were both more than 5% lower in 2022 than in 2021, representing an overall achievement of our 2022 targets.

	2021	2022 target	2022 actual
Electricity (kWh/ton)	0.51	0.48	0.47
Waste (kg/ton)	28.62	27.18	25.34





UN Sustainable Development goals

Many of our activities align with the UN's Sustainable Development Goals (SDG's). Our LCA projects, which aim to examine and reduce the carbon footprints of individual products, lead us toward responsible consumption and production, SDG #12. By understanding the impacts of each aspect of our production, we work toward Target 12.4, achieving "the environmentally sound management of chemicals and all wastes throughout their life cycle..." In order to align with Target 12.5: "By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse," we set annual targets for waste reduction, in particular from the production process, at all of our production sites. In 2018, our US site joined Operation Clean Sweep, a US-based campaign helping companies to reduce plastic resin waste, with the ultimate goal of zero plastic resin loss. As part of this campaign, Polyram US has modified certain equipment and procedures to reduce the number of pellets that go to waste, and have begun selling scrap, rejected pellets and used packaging to a recycling company.

The CDP disclosure, and our related emissions targets, are a first step toward more serious climate action, SDG #13. The report contains sections on risks and opportunities, business strategy, and emissions-reductions targets and activities, which aligns with Target 13.3: "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning." These and other activities help us to move toward a more sustainable world.





Added value for the environment

At Polyram, we constantly strive to improve our own environmental performance, as well as that of our customers. We are always examining new alternative materials that can help us lower our Scope 3 emissions, and a great deal of our research and development (R&D) is focused on low-emission materials, including recycled or reused plastic as well as natural materials in place of glass fibers.

Our UK site has already incorporated various alternatives into their products, using recycled plastics and both recycled and post-industrial resins. At our headquarter site in Israel, we have begun using a product called "UBQ," a plastic substitute made from household waste that can be added to certain products in order to reduce the amount of plastic needed. This material has environmental benefit in two ways: it reduces the need for oil-based plastics, and it uses waste that would otherwise have been sent to a landfill, moving us toward a circular economy.

We are also careful to waste as little material as possible, adding rejected materials back into our products. A good example of helping our customers and the environment is the recycling of cable ties. We take imperfect and reject ties, grind them, and re-engineer the polymer to make it useable again in the same manufacturing process, reducing the overall amount of virgin plastic used and diverting plastic waste from landfills.

Some of our products, while not made of recycled materials themselves, can increase the use of recycled materials for our customers. Some of our Bondyram products, for instance, are used as an adhesive for products that are often made of primarily recycled materials, allowing those materials to be used rather than discarded. The use of Bondyram as an adhesive can also improve the recyclability of the final product in which it is used, since other types of adhesives are not easily recycled.

As part of our commitment to sustainable practices, we have already begun purchasing renewable energy at some of our sites, and hope to increase this over the next several years. As mentioned above, our UK site purchases energy from a supplier that provides 100% renewable energy that is backed by REGO certificates. Our headquarter site in Ram On, Israel uses a combination of sources, one of which is solar panels on the roof. These two renewable sources reduce our Scope 2 emissions, as discussed above, and move us toward a more sustainable business plan. In the next few years, we plan on reviewing our electricity supply at all of our sites in order to increase our use of renewable sources. We also plan on increasing the number of electrical vehicles in use in our fleet, in order to reduce our fuel consumption from employee commuting.



Engagement with our value chain

ADDED VALUE TO OUR CUSTOMERS

In recent years, there has been an increased interest in the environmental impacts of products and of companies, and many of Polyram's customers have reached out with questions regarding our products and the company's environmental strategy. In order to address customer concerns, we have performed a Life Cycle Assessment (LCA) on dozens of different products. The results of the LCA were sent to customers in response to their questions on the particular products they were purchasing. This allows our clients to understand the environmental impacts of their materials, helping them make informed decisions and more accurately calculate their own carbon footprints.

The results of each LCA give us information on a number of different environmental impacts, and we can break down the results to understand which aspects of the production process had the highest impact. Below is an example of one product that was examined, and the impact breakdown:

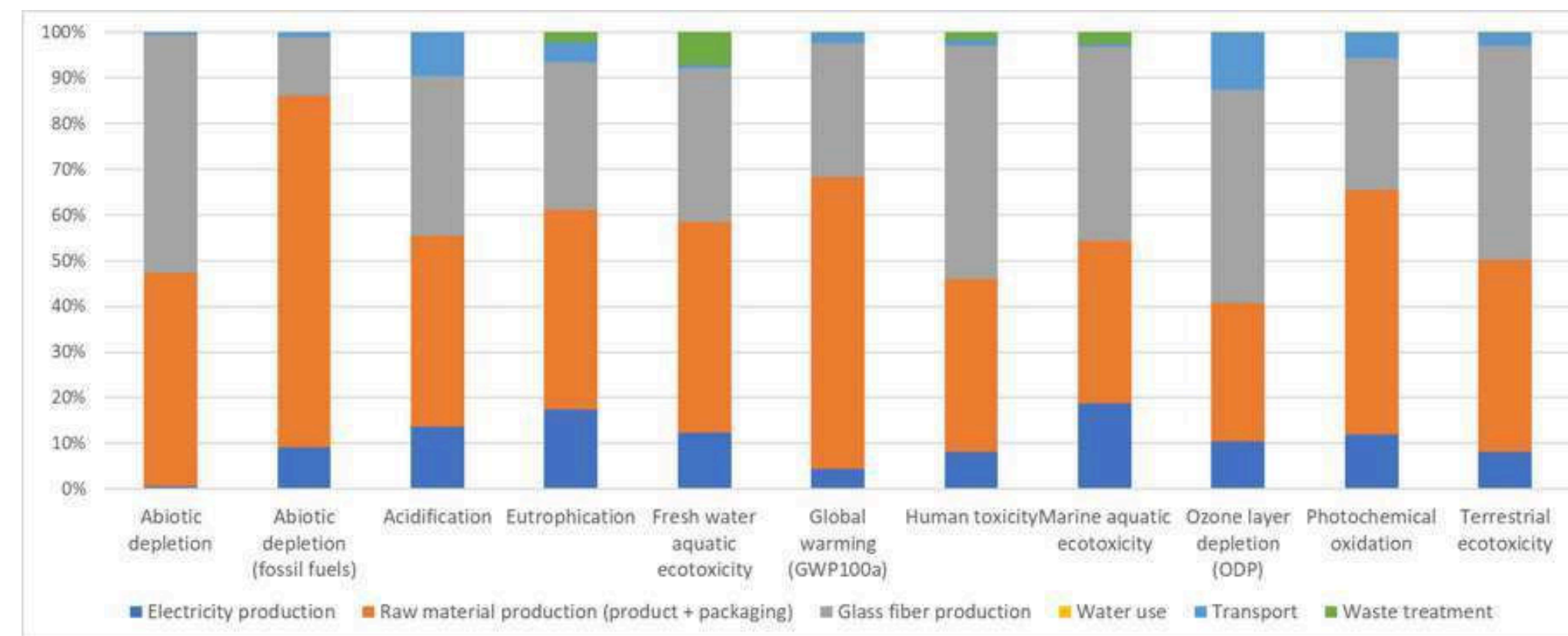


Figure 7: Impact breakdown of a product by activity / input

Our LCA results can also be used to understand the difference between using different types of materials. One LCA was performed on a particular product made at our UK site, which uses recycled material rather than virgin material. In order to assess the difference were we to use virgin material in this product, we ran the same analysis a second time using virgin material in place of the recycled material used in practice. The results showed that this product would have a carbon footprint about 1.5 kg CO₂e higher per kg of material. This type of information can inform our decisions moving forward, allowing us to make design decisions with environmental concerns in mind.



About this report

This report contains an overview of Polyram's environmental projects and activities through December 2022. The report details activities from our global production sites and distribution centers. This is our first report and we intend to present our performance, providing clear and easily comparable data, in future reports. The report was written with the assistance of Green Target – an EHS and Sustainability Consulting Firm.

We wish to thank all the people involved in the collection of data, writing and production of this report.



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