2021 Polisan Holding Greenhouse Gas Corporate Report Summary

Since 2012, Polisan Holding has been calculating and publicly publishing Scope 1 and 2 emissions of Group companies, Polisan Kansai Boya, Polisan Kimya and Poliport Kimya, which constitute 97% of Holding's turnover. Scope 3 emissions, which is affected processes that are not directly under its management and control, are included to the emission inventory in 2020 with the "Unity for the Future" vision of Holding's sustainability strategy.

Carbon footprint for 2021 is calculated as **373,779 tCO2e** for activities within Scope 1, 2 and 3 in accordance with the ISO 14064-1 Standard and Greenhouse Gas Protocol (GHG) Calculation and Reporting Standards.

Normalized carbon footprint are monitored in order to ensure the effective management of emissions and to determine the carbon footprint that is free from production and capacity fluctuations. While the carbon footprint is normalized to production at Polisan Kansai Boya and Polisan Kimya companies, at Poliport Kimya it is normalized to products handled.

Table 1: Total and Normalized Carbon Footprint of Polisan Holding Group Companies

Group Companies	Scope 1	Scope 2	Scope 3	Total Carbon Footprint	Normalized Carbon Footprint
	tCO_2e	tCO_2e	tCO_2e	tCO_2e	tCO_2e
Polisan HOME COSMETICS	1968	1628,5	126.045	**129642**	**0,0272***
Polisan KİMYA	10332	2348,5	229.651	**242332**	**0,0492***
Poliport	415	1077	314	**1806**	**0,0004****

* Normalized values are calculated by dividing the carbon footprint by the product produced.

**Normalized values are calculated by dividing the carbon footprint by the product handled.

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Greenhouse Gas Emissions Data

Table 2:Scopes, Categories and Percentages of Emissions

Scope and Category	tCO_2e	Percentage of Scope 3 Emissions
Direct and indirect Emissions (Scope 1 – 2)		
Scope 1: Direct emissions from owned/controlled operations	12715	
Scope 2: Indirect emissions from the use of purchased electricity, steam, heating, and cooling	5054	
Other Emissions (Scope 3)		
Category 1: Purchased goods and services	328.066	92,15%
Category 3: Fuel- and energy-related activities (not included in scope 1 or scope 2)	1.463	0,41%
Category 4: Upstream transportation and distribution	7.961	2,24%
Category 5: Waste generated in operations	532	0,15%
Category 6: Business travel	114	0,03%
Category 7: Employee commuting	168	0,05%
Category 9: Downstream transportation and distribution	17.389	4,88%
Category 12: End-of-life treatment of sold products	58	0,02%
Others (Upstream): Could not be categorized	257	0,07%

Categories 2, 8, 10, 11, 13, 14 and 15, are excluded from the greenhouse gas inventory due to lack of data availability and relevance.

Category 2: Capital goods, we chose not to report this category as data availability is limited (an exemption allowed under GHG Protocol guidance),

Category 8: Upstream leased assets, such as rental vehicles, are included in our Scope 1 emissions. Therefore, emissions from leased assets are kept at Scope 1, leaving zero emissions associated with our Scope 3 calculations.

Category 10: Processing of sold products, the chemical and paint products we produce can be used directly by our customers. No additional processes are required.

Category 11: Use of sold products, chemical and paint products we produce can be used directly by our customers. The use phase of our products does not include any energy or water usage. (In paint products, very small amount of thinner as water or solvent can be used but this step was ignored as it is under user control and the amounts are low)

Category 13: Downstream leased assets, there are no downstream leased assets.

Category 14: Franchies, there are no franchises activity in company business model.

Category 15: Investments, we do not have any investments related to this category defined in the Greenhouse Gas Protocol.

SGreenhouse Gas Emissions Data (Continued)

Table 3: Scope 1 and 2 GHG Emissions

GHG Emissions	CO_2		CH_4		N_2O		HFCs	
	tCO_2	tCO_2e	tCH_4	tCO_2e	tN_2O	tCO_2e	tHFCs	tCO_2e
Scope 1	12.474	12.474	0,26	7,5	0,22	61	0,132	171,6
Scope 2	5.054	5.054	0,06	1,5	0,08	18	-	-

There are no PFCs and SF6 emissions within Scopes 1 and 2.

Description of Methodologies and Data Used

Table 4 Methodologies Used to Calculate or Measure Emissions

Scope	Methodologies Used to Calculate or Measure Emissions, Providing a Reference or Link to Any Calculation Tools Used
Scope 1	Natural resource consumptions associated with Scope 1 are recorded with invoices, system data, meter data. Emission calculations are carried out with IPCC AR5 coefficients.
Scope 2	Externally obtained electricity data associated with Scope 2 are recorded with invoices, system data, meter data. Emission calculations are carried out with IPCC AR5 coefficients.
Scope 3	Raw material data: Supplied from purchasing department. Emission calculations are carried out by using the databases within SimaPro. Raw material transportation data: Supplied from purchasing department. Calculations are carried out by taking into consideration distance from the production location to the delivery to final location, transfer method and tonnage of the relevant raw material. Electricity losses: Calculated by the coefficient of the country's production mix. Emissions caused by the losses through reduction of the electricity to the medium voltage for the industrial use are included in the Fuel and Energy Related Emissions. Wastes: Data of production related wastes are obtained from the relevant units of the companies. Emission calculations are carried out through DEFRA coefficients for waste categories. Business trips: Data of business trips are supplied from Polisan ERS system. Emission calculations are carried out with DEFRA coefficients based for all business trips throughout the year. Employee service: Fuel data consumed by the subcontractor is provided from the administrative affairs unit. Calculations are carried out with DEFRA coefficients. Product transportation: The distance travelled and the tonnage of shipped products are provided from the logistics unit for every shipment throughout the year. Calculations are carried out with DEFRA coefficients.

Disposal of the products sold: Calculations are made with the relevant DEFRA coefficients by taking into consideration of packages that will be disposed after the use of the product.
Other (Upstream): Customer/Visitor Transportation: Customer/visitor transportation data coming to our facilities during the year were taken from the visitor registry. In the light of these data, the facility visited was accepted as the midpoint and the average km data between Istanbul and Kocaeli was calculated and calculated over the DEFRA coefficients.
Other (Upstream): Drinking Water Consumption: The supplied water data are compiled on the basis of liters and calculations are made over the DEFRA coefficients.
Other (Upstream): Mains Water Consumption: The amount of water taken from the mains for domestic use (m^3) is calculated by multiplying the DEFRA coefficients.
Other (Upstream): In-Office Paper Consumption: In-office paper consumption is separated as A4 and A5 and calculations are made over the DEFRA coefficients over the total consumption amounts.

Additional Informations

Risks and Opportunities Related to Climate Change

Increased Costs (Indirect Operations) / Magnitude of Impact: Low
Without periodic maintenance, equipment such as, vents, gauging, guide poles, drains, sealing elements and valves may cause leakages from tanks. Compliance to ever change in regulations requires continuous maintenance and upgrade of processes and operations.

Tank Inspections and maintenance and reconstruction projects. Equipment such as vents; gauging, guide poles; drains; sealing elements and valves, and common issues were inspected and repaired if needed according to API (American Petroleum Institute) 653-API 950 Standards. Projects such as TANK 5 HMD maintenance and repair project, TANK API653 KONT project, Tank Manufacturing and Assembly Projects, Poliport Additional Fixed Gas Detectors Project (Major damage due to tank puncture), Polisan Kimya additional fixed gas detectors project, Poliport additional fixed gas detectors project has been carried out.

Increased capital expenditures / Magnitude of Impact: High
By the increasing effects of global warming, extreme weather events such as storms, cyclones, twisters are observed more than ever in Turkey, where we operate.

As a response to risk, we improved our fire management systems both for as preventing and for mitigate the effect of fire. Additionally, we insured our premises. Our real assets may be exposed to extreme weather events or fire events. In case of such events, we may assume that 20% of our real assets may be damaged.

Increased Costs (Indirect Operations) / Magnitude of Impact: Low
In Paris COP21, Turkey signed the Paris Agreement and submit its NDC plan to the UN Secretariat. According to the INDC, Turkey's target is to reduce 21% of its emissions according to business-as-usual scenario by 2030. The method of GHG reduction has not been identified yet. Although it is under progress, it is anticipated that there will be Carbon Border Adjustment Mechanisms (CBAM). In this context, it is deduced that taxes will be introduced related to Scope 1 + 2 emissions of the organizations.

In case the Border CBAM is activated, approximately 20% of the production at Polisan Kimya is exported according to the export figures of 2021. It is assumed that Polisan Kimya's Scope 1 + 2 Emissions will be 14,075 t CO2e/year and 2,815t CO2e/year with an export rate of 20%. At Polisan Kansai Boya, approximately 5% of the production is exported according to the export figures for 2021. It is assumed that Polisan Kansai

Boya's Scope 1 + 2 Emissions will be 5.225 t CO2e/year and 261.25 t CO2e/year with an export rate of 5%. As a response to this risk, our sustainability team is continuously working on strategy development and action planning to mitigate our impacts on climate change. Additionally, we are periodically reporting in line with MRV regulations on time. Furthermore, we are having Environmental Product Declaration (EPD) for our products

Increased Costs (Indirect Operations) / Magnitude of Impact: Low
According to the MRV regulation introduced in 2017, the organizations over a certain amount of combustion capacity are subject to declare their GHG inventories to the T.R. Ministry of Environment, Urban and Climate Change. Precaution: *GHG calculation & report verification *Continuous Emission Monitoring System (CEMS)".

Almost 10% of Polisan Kimya's products are exported. MRV is related to Scope 1 emissions and 2021 Scope 1 emissions for PK is 10,332 tCO2e. As a result, Scope 1 emissions for the exported products of PK is 1,033 tCO2e.

Increased Costs (Indirect Operations) / Magnitude of Impact: Medium - High
As we are in chemical industry, we are storing liquid chemical materials in tanks, we have a risk of leakages from tanks. Major damages due to tank puncture split is a high risk.

In response to the risk, new tank construction is undertaken for major damage due to tank puncture. Poliport Additional Fixed Gas Detectors Project and Polisan Kimya Additional Fixed Gas Detectors Project are being carried out.

Decreased Market Value / Magnitude of Impact: Medium - High
Any negative environmental and/or social negative impact may bring reputational risks to Polisan Holding and it may lead a decrease in the market value of Polisan Holding. It may be a split, accident, fire, etc.

If a reputational risk is realized, then a negative financial impact will occur. Minimum Impact Scenario: If we assume that there will be a case with small and/or local impact, then the negative financial impact may be 1% of the equity capital. If we assume that there will be a case with big and/or global impact, then the negative financial impact may be 3% of the equity capital.

Emission Reduction Targets

Emission targets have been determined in order to minimize the risks identified related to climate change and to move the opportunities forward. A total of 10 emission targets have been determined, including absolute emission, emission intensity and other targets.

Absolute Emission Targets

1. Compared to base year 2019, %15 reduction of Scope 1 and 2 emissions are targeted until 2025.
2. Compared to base year 2019, 100% reduction of Scope 2 emissions are targeted until 2025.
3. Compared to base year 2021, %10 reduction of Scope 1, 2 and 3 emissions are targeted until 2025.

Emission Intensity Targets

1. Compared to base year 2021, %5 reduction of Scope 1 and 2 emissions are targeted for 2022.
2. Compared to base year 2019, %25 reduction of Scope 1 and 2 emissions are targeted for 2025.
3. Compared to base year 2021, %10 reduction Scope 1, 2 and 3 emissions are targeted for 2025.

Other

1. Reduce electricity use %30 in new production facility, which is currently under construction and built in line with LEED standards, compared to conventional facilities.
2. Investment criteria supporting Polisan Holding's ESG Score and in all investments; constructing facilities that are environmentally friendly throughout their life cycles and where all energy resources from material selection to indoor air quality, from electricity to water are used efficiently.
3. In 2023, 25% biobased raw materials will be used instead of petroleum-derived raw materials.
4. By 2025, 10% of our portfolio will be made up of products with internationally recognized environmental labels.

In line with the targets of combating climate change and transition to a low carbon economy;

Emissions in the value chain are monitored by making Scope 3 calculations, plans are made for emission reduction projects and studies are carried out. In addition to Scope 1 and 2 emissions, which have been reduced by 53.6% since 2012, studies are planned to reduce Scope 3 emissions.

Environmental impacts are measured on a product basis and publicly declared by 3rd party verified life cycle analyses. In the short term, we plan to extend the EPD certificates from 4 products in the Polisan Kansai Boya portfolio to 6 products and to 27 products in 8 product groups at Polisan Kimya. In the medium term, we plan to extend the life cycle analysis to our entire portfolio using internal resources, as well as to predetermine the impact on the value chain by incorporating the life cycle approach into the planning and decision-making stages of our new products.

Resources are provided to R&D units in order to improve the environmental performance of products.

Continuous improvement activities are carried out and followed up on processes to increase productivity.

In order to spread the sustainability goals to the value chain; performance evaluations are carried out in the fields of quality, environment, health and safety, energy and information security. In line with the principles of corporate transparency, Polisan Holding sustainability strategies and objectives are shared with all stakeholders, and it is planned to increase the performance of stakeholders through communication and training.

In the investment plans, plans and budgets for improvement projects are prepared.

Projects aimed at reducing the use of natural resources and on-site energy production by utilizing renewable energy resources are being evaluated. The purchased electricity is planned to be obtained from I-REC certified renewable energy facilities.

Examining the financial effects arising from climate change and the transition to a low carbon economy is targeted in the short term.

Setting emission reduction targets in accordance with Science-Based Targets (SBT) is targeted in the short term.