

Module: Introduction**Page: Introduction****CC0.1****Introduction**

Please give a general description and introduction to your organization.

The Bitlis Family story which started with the textile sector in 1956 lead to the establishment of Polisan Holding which has been operating in six different sectors, namely, paint, chemistry, agriculture, textile, construction and logistics (port management) in the last 50 years. Polisan Holding, which was established in 2000 with the aim of providing the coordination between the companies which it participated in their capital and management, and of ensuring their management properly by operating with advanced techniques in planning, marketing, finance and fund management in their legal affairs, human resources and information technologies, has been operating progressively both abroad and at home with the philosophy of 'Right Strategies, pioneering organisations and powerful future.'. Polisan Holding has been following a sustainable strategy in becoming one of the leading organisations in Turkey.

The Holding headquarters is located in the Dilovası Organized Industrial Zone in Kocaeli, Turkey. The Group's main operations are located in Turkey and it has a subsidiary located in Greece.

Polisan Holding group companies are Polisan Kimya Sanayii A.Ş. (Polisan Kimya), Poliport Kimya Sanayi ve Ticaret A.Ş. (Poliport), Polisan Tarımsal Üretim Sanayi ve Ticaret A.Ş. (Polisan Tarım), Polisan Yapı İnşaat Taahhüt Turizm Sanayi ve Ticaret A.Ş. (Polisan Yapı), Polisan Yapı Kimyasalları A.Ş. (Polisan Yapıkim), Şark Mensucat Fabrikaları A.Ş. (Şark Mensucat) and Polisan Hellas S.A (Polisan Hellas). The Holding's Joint Venture (JV) operating activities are Polisan Kansai Boya Sanayi ve Ticaret A.Ş. (Polisan Kansai Boya) and Rohm and Haas Kimyasal Ürünler Üretim Dağıtım ve Ticaret A.Ş. (Rohm and Haas).

As the Polisan Holding company, we see our long-term development and stability in all the sectors we have operated as a direct result of our informed approach to sustainability issues. An integral part of our corporate strategy is to share transparently and objectively information that in all our operations, we not only have an economical profitability approach but we have established a management strategy combating the environmental and social issues which threaten our world. Consequently, we kindly present, in our first disclosure to CDP Climate Change Program our performance and strategy on climate change for our stakeholders to view. In this disclosure our leading companies Polisan Kansai Boya, Polisan Kimya and Poliport Kimya are presented.

Module: Management**Page: CC1. Governance**

CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

The highest level of direct responsibility of sustainability and climate change efforts at Polisan Holding is Department for Management Systems and Sustainability which responds to CEO and the Executive Board. The Department is composed of: Management Systems and Sustainability Manager, Sustainability Supervisor, Sustainability Specialist and two Management Systems Specialist. Duties and responsibilities of the Department can be listed as:

- To specify the corporate policies and strategies about management systems, corporate sustainability principles and climate change,
- To plan, organize, follow-up and control necessary activities within the scope of management systems and sustainability practices that are in line with the policies and legal regulations to meet company targets determined by the top management,
- To address corporate risks and opportunities in scope of sustainability principles and policies into the management system, and evaluate the actions for effectiveness
- To identify KPIs and targets of sustainability and climate change related issues,
- To prepare and/or coordinate action plans for management systems as well as sustainability and climate change targets, follow the progress against targets, report performance and monitor results,
- To follow domestic and global developments on management systems, sustainability and climate change issues,
- To collaborate with NGOs, public enterprises, research centers and universities on sustainability practices,
- To define the strategic framework and decisions of the external sustainability assessment and rating tools such as GRI Sustainability Reporting, CDP and BIST

Page: CC2. Strategy

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Senior manager/officer	From facility to regional	> 6 years	The company wide and sectorial risk assessment as well as climate change related risks are reviewed in following meetings: -Executive board meetings (weekly) -Board of Directors meetings (1 in 3 months) -Management review meetings (annual) - Department for Management Systems and Sustainability meetings (internal and inter-

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
				departmental - weekly) -Sustainable Quality Circle Meetings (yearly) -Polisan Kansai Boya Management Team Meetings (weekly) -Poliport Kimya Management Team Meetings (weekly) -Polisan Kimya Management Team Meetings (weekly) -Unit meetings (min monthly) -Energy top board (where all operational units are present) meetings (once every 3 months) and sub-board meetings (monthly) -Training meetings (46 meetings in 2016) -Facility meetings (monthly) -Turkish Chemical Industry Association - Environmental Specialization Group meetings (monthly) -TUSIAD - Climate Change Working Group meetings (monthly)

Page: CC3. Targets and Initiatives

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1+2 (location-based)	100%	0%	Metric tonnes CO2e per unit of production	2015	0.05	2016	No, and we do not anticipate setting one in the next 2 years	The target is to keep the carbon emission per ton production of paint product manufactured by Polisan Kansai Boya in 2016 as same as in 2015.
Int2	Scope 1+2 (location-based)	100%	0%	Metric tonnes CO2e per metric tonne of product	2015	0.0005	2016	No, and we do not anticipate setting one in the next 2 years	This target is to keep the carbon emission per ton product handled by Poliport Kimya in 2016 as same as in 2015.

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int3	Scope 1+2 (location-based)	100%	0%	Other: metric tonnes CO2e per metric tonne of handled product	2015	0.08	2016	No, and we do not anticipate setting one in the next 2 years	This target is to keep for the carbon emission per ton production of chemical product manufactured by Polisan Kimya in 2016 as same as in 2015.

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	No change	0			The target is to keep the carbon emission per ton production of paint product manufactured by Polisan Kansai Boya in 2016 as same as in 2015. Hence with this target, no change in absolute emission (Scope 1+2) is expected.
Int2	No change	0			This target is to keep the carbon emission per ton product handled by Poliport Kimya in 2016 as same as in 2015. Hence with this target, no change in absolute emission (Scope 1+2) is expected.
Int3	No change	0			This target is to keep for the carbon emission per ton production of chemical product manufactured by Polisan Kimya in 2016 as same as in 2015. Hence with this target, no change in absolute emission (Scope 1+2) is expected.

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	In Paris COP21, Turkey signed the Paris Agreement and submit its Intended Nationally Determined Contributions (INDC) plan to the UN Secretariat, in which Turkey sets an intended target is to reduce 21% of its emissions by 2030.	Increased operational cost	>6 years	Direct	Very likely		Investment cost for new equipment or improvements	The Polisan Holding group companies within the scope of this disclosure are located at Dilovası Industrial Zone and have to purchase electricity from that industrial	Costs related to consultancy and verification are integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Plans and policies to be implemented for Turkey's INDC plan covers energy, industrial processes, transport, buildings and urban transformation, agriculture, waste and forestry topics. The plan mainly focuses on production capacity increase in renewable energy sources, establishment of co-generation systems, reducing emission intensity with the implementation of National Strategy and Action Plan on Energy Efficiency, ensuring balanced utilization of transport modes, building of energy efficient structures, creating energy performance certificates, energy recovery from waste, increasing sink areas. As the main focus is on energy efficiency, the companies may need to purchase energy from renewable energy suppliers and also take</p>							<p>zone. As choosing their electricity supplier is not a valid option, the companies give great importance on efficient energy use. Within the ISO 50001 energy management system, the Holding companies have energy committees and regularly monitor, track, take action and set future goals on energy related operations. In addition, the Holding pursues a procurement policy for equipment with low energy consumption. Polisan Kimya, with newly established Silver Catalyzed Formaldehyde Production</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	energy efficiency related actions to decrease their energy related carbon impacts.							Facility and the technological improvements in Molybdenum Catalyzed Formaldehyde Facility, achieved approximately 1 million kWh of energy savings per year. In addition, within the context of the 5627 numbered 18/04/2007 dated "Energy Efficiency Law" and the "Regulation on Increasing the Efficiency of Energy Resources and Energy Use" (dated 27/10/2011 numbered 28097) of the Ministry of Energy and Natural Resources, we carry out projects for the implementation of productivity	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								improvement projects in our operations. The Holding also measures its corporate carbon footprint since 2012 and also reports GHG emissions of Polisan Kimya within the scope of Monitoring of GHGs Emissions Regulation in Turkey.	
Emission reporting obligations	The Regulation Concerning Monitoring of Greenhouse Gas Emissions has recently been issued by the Turkish Ministry of Environment and Urbanism. It is generally based on the United Nations Framework Convention on Climate Change and the Kyoto Protocol, which was ratified by the Turkish Parliament in 2009 with Law No. 5836. The Regulation aims to set the principles and procedures related to	Increased operational cost	Up to 1 year	Direct	Likely	Medium	Cost of consultancies and auditing services.	Polisan Holding reports GHG emissions of Polisan Kimya and sent the GHG Monitoring Plan to the Ministry which already are accepted. The 2015 and 2016 GHG reports are foreseen to be audited and verified by a licensed auditor company by the end of 2017. In addition, Polisan Holding has been	Costs related to consultancy and audits are integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	monitoring, reporting and verification of GHGs resulting from organizational activities listed in Annex I of the by-law. Every year, approved GHG emission reports need to be prepared and sent to the Ministry. Under the regulation, first reporting obligation period for industry started in 2016 for GHG emissions of 2015.							internally calculating its greenhouse gas emissions originated from organizational activities since 2012 and shares its values with the stakeholders through sustainability reports.	
Air pollution limits	In line with Turkey's INDC plan to reduce its emissions by 2030 and possible changes in flue gas regulations in the future, the industries need to be always prepared for reduction targets. In both cases, the companies may be required to adapt in a short period of time and fully comply with targets. In order to meet these targets, implementation of additional activities, technologies, equipment etc. will	Increased operational cost	1 to 3 years	Direct	Likely	Medium-high	Investment cost for new equipment or improvements	In order to be below the limit values stated in the related flue gas laws and regulations, we are preparing for possible limit reductions with internal targets and making improvements in possible emission sources. We have treatment systems at 18 emission points. Our targets include flue	Costs related to new/improved equipment are integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>arise; hence additional cost and investments will be required.</p>							<p>scrubbers and bio-filter projects: -In the new ventilation and treatment system at Polisan Kansai Boya Alkyd production area, organic steam and dusts are collected in separate lines and treated separately, hence the efficiency of the treatment is increased by 30%. -By adding a washing column (scrubber) and zeolite filter bed to the acrylate tank area, we increased the capacity hence the treatment efficiency by 40% at Poliport Kimya. -We established a new gas washing system in the Poliport Kimya Phenol Chemical</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Tank and achieved the treatment with 90% performance. - We aimed to remove the tank emissions by initiating the Gas Recovery Project to direct UFC and formaldehyde tank gases to production at Polisan Kimya. - At Polisan Kimya, Polisan Kansai Boya and Poliport Kimya, we carried out projects for establishing closed tank filling and discharging systems.	
Product labeling regulations and standards	Turkish Environmental Friendly Product Labeling, Green Building Certification Systems and Environmental Product Declaration System are new but rapidly emerging topics in Turkey. Lack of	Reduced demand for goods/services	1 to 3 years	Direct	Likely	Medium-high	Label certification and approval related costs	We already have environmental product declarations (EPDs) in which we declare the environmental performance of our paint products (2	Costs related to consultancy and verification are integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	products compliant with these certifications and systems, may cause reduced demand for produced goods.							indoor 2 outdoor paints) and planning to widen our range of products with EPDs with Polisan Kimya construction chemicals. We are also carrying out R&D studies on developing products with environmental labels.	
Fuel/energy taxes and regulations	The Energy Efficiency Law, adopted in 2007, set forth measures for energy efficiency in energy generation, transmission, distribution and consumption phases at industrial establishments, buildings, power generation plants, transmission and distribution networks and transport. In addition, energy efficiency strategy of Turkey is to decrease energy intensity by at least 20% by the year 2023. Its strategic	Increased operational cost	1 to 3 years	Direct	Very likely	High	Investment cost for new equipment or improvements	In addition to efficient energy use and consumption reduction projects within Holding Companies, with the establishment of new manufacturing plant for Polisan Kansai Boya at Gebkim (Gebze Organized Industrial Zone for Chemical Sector) with LEED certification, we	Costs related to consultancy in energy audits is integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>purposes are mainly reduce energy intensity and energy losses in industry and services sectors. In line with these developments, possible legal requirements related to energy may cause increase in operational cost. In addition, Turkey is foreign-dependent in energy, both electricity and natural gas, hence any regulatory uncertainty or financial fluctuation in energy at global scale would strongly affect operations in Turkey.</p>							aim lower energy intensity in our operations.	
Product efficiency regulations and standards	<p>In Turkey, there are two main regulations in effect used for determining the energy requirements of buildings. The first one, Energy Performance Regulation in Buildings (01/04/2010.Official gazette of Turkish republic. Number:27075) proposes the calculation of instantaneous solar</p>	Reduced demand for goods/services	Up to 1 year	Indirect (Client)	Very likely	Medium-high		We are always working to improve the heat reflecting and heat insulation capabilities of the raw materials used in our thermal insulation products. Taking into account the heat and humidity conditions in	Costs related to development of new/improved products are integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>radiation on building surfaces while determining the building's energy needs. The second one, The National Standard of Thermal Insulation Requirements for Buildings (TS 825) is mandatory and widely used for calculating heating energy needs of buildings. Any construction product that is not providing energy efficiency in line with these two standards will lead to decrease in demand.</p>							<p>each region of Turkey, we have been conducting a lot of R&D to develop region specific insulation materials. Polisan Exelans Energy Heat Insulation Laths and Package Systems provide a lasting performance without losing technical values over time. Polisan has been in the insulation market with Exelans Energy product since 2007 and about 20 000 buildings/480 000 houses have been introduced to the Exelans Energy quality so far. Polisan has integrated its product quality with its service quality through "Insulation</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>Insurance”, which it has improved most recently. Moreover, in order to increase customer satisfaction and as a promotion, we provided “Energy Performance Certificate” for 17,500 houses. This certificate became a legal requirement in existing buildings since January 2011 and it classifies the energy consumption and greenhouse gas emissions of buildings per usage area per year. In the classification, (A) is the best and (G) is the worst. In this way, we ensured that our customers knew the efficiency of their insulation,</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								their heating and cooling systems, minimum energy requirement and energy consumption of their building.	
Uncertainty surrounding new regulation	The recently established 'Monitoring of GHGs Emissions' Regulation aims to set the principles and procedures related to monitoring, reporting and verification of GHGs resulting from organizational activities. Revisions on this regulation may bring additional loads to manufacturers hence force industry to face carbon taxes which increases operational costs.	Increased operational cost	>6 years	Direct	Very likely	High		Polisan Holding closely follows developments in carbon pricing in Turkey and performs emission reduction projects to be prepared for possible taxation.	The financial estimation has not been assessed
Carbon taxes	Future regulations on carbon taxes and the uncertainty of the carbon price will increase operational cost.	Increased operational cost	>6 years	Direct	Likely	Medium-high	Higher operational cost	We engage with stakeholders, including research centers and sectorial associations and put efforts for Climate Change Management. In	Costs related to consultancy in energy audits is integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								addition, at Polisan Holding we continuously work on energy and emission efficiency projects in our operations.	

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	Heated and/or refrigerated tanks and lines are used in operations at Polisan Kansai Boya, Poliport Kimya and Polisan Kimya. Increase in average mean temperature will increase the energy need for cooling hence in operational	Increased operational cost	>6 years	Direct	Very likely	High	Higher operational cost, investment cost for new equipment or improvements	The actions that would be taken against changes in main temperature are closely related to energy saving projects. In that context, as mentioned above statements, Holding companies gives great importance on energy efficiency	Costs related to new/improved equipment are integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	cost. In addition, seawater is used for cooling purposes. Increase in seawater temperature will also cause increase in energy consumption and therefore operational cost.							and within the ISO 50001 energy management system and with the help of established energy committees, Holding regularly monitors, tracks and takes actions on energy related operations, and always aims for improvement.	
Change in temperature extremes	In line with the change in mean temperature, the change in temperature extremes will cause the increase in energy consumption to keep necessary temperatures at hot and/or cold tanks and lines, therefore the operational cost will increase.	Increased operational cost	>6 years	Direct	Very likely	High	Higher operational cost, investment cost for new equipment or improvements	The actions that would be taken against changes in temperature extremes are closely related to energy saving projects. In that context, as mentioned above statements, Holding companies gives great importance on energy efficiency and within the ISO 50001 energy management system and with the help of established energy committees, Holding regularly monitors, tracks and takes actions on energy related operations, and always aims for improvement.	Costs related to new/improved equipment are integrated in the budget.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Sea level rise	The Polisan Holding group companies within the scope of this disclosure are located at Dilovası Industrial Zone which locates at the coast of Marmara Sea in Kocaeli, Turkey. Increase in sea level would lead to failure of business continuity, consequently financial cost.	Inability to do business	>6 years	Direct	Likely	Medium-high	The financial estimation has not been assessed but the impact may cause halt of production temporary and in the long term may lead to relocating of Dilovası plants.	For Poliport Kimya, construction of a dock between the terminal and the port quay in 2017. With this project, the plants will be above sea level and will maintain operation continuity. In addition, at Poliport Kimya, sets around tank farms and drainage systems prevents flooding in these areas.	The financial estimation has not been assessed
Change in precipitation extremes and droughts	At Polisan Holding, seawater, well water and municipal water are used in operations. As a consequence of climate change, the water scarcity would lead to increase in operational cost to treat sea water and consequently failure of business continuity.	Increased operational cost	>6 years	Direct	Very likely	High	Higher operational cost, investment cost for new equipment or improvements	Polisan Holding is already using seawater in its operations by treating it with reverse osmosis process. In case of a potential water scarcity problem in wells and municipal water systems, thanks to the existing reverse osmosis system, seawater can replace these resources and maintain operational continuity. In future, capacity increase in this system may be	The financial estimation has not been assessed

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								needed which will cause higher operational cost and new investment. In addition, as a precaution against water scarcity, Municipal Water Directorates plan projects for the improvement of existing systems, the development of new systems, rainwater harvesting and the reuse of grey waters for the reuse of treated municipal wastewater.	

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	Due to increasing environmental awareness, the	Reduced demand for goods/services	1 to 3 years	Direct	Likely	Medium-high	Label certification	At Polisan Holding, we integrate climate change management	Costs related to R&D projects, consultancies

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	consumers, whether companies or individuals gravitate towards sustainable procurement. Fail to provide environmental friendly products and services will create the risk of reduced demand for goods and services.						and approval related costs	to our operations as well as our products and account risks that might occur from consumer behaviors. In that context, we already have environmental product declarations (EPDs) in which we declare the environmental performance of our paint products (2 indoor 2 outdoor paints) and planning to widen our range of products with EPDs with Polisan Kimya construction chemicals. We are also carrying out R&D studies on developing products with environmental labels (ISO 14025, Type I labels).	and verification processes are integrated in the budget.

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC8. Emissions Data - (1 Jan 2014 - 31 Dec 2014)

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

14084

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
10466		

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Wastewater treatment and discharge	Emissions are relevant but not yet calculated	Emissions are not relevant	Emissions are not relevant	The Polisan Holding wastewater treatment plant operates with high COD and suspended solid removal efficiency. The treated wastewater by Polisan is then transferred to the wastewater treatment plant of Dilovası Industrial Zone, in which the company plants are located, to be treated again and discharged. Therefore, the GHG emission from wastewater assumed to be minimal compared to other emissions in Scope1 and not evaluated for the current disclosure.

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Assumptions Metering/ Measurement Constraints	Scope 1 emissions are reported based on calculations in which reliable databases for emissions factors such as IPCC 2006 Guidelines and IPCC 5th assessment report were utilized to minimize uncertainties arising from calculation uncertainties. In addition, the Company manages its operations through ISO 14001 and ISO 50001 management systems to minimize uncertainties arising from inventory data.
Scope 2 (location-based)	Less than or equal to 2%	Assumptions Metering/ Measurement Constraints	Scope 2 emissions are reported based on electrical energy use that continuously measured and reported inline with the ISO 50001 management system. Therefore, the uncertainty in related activity data assumed to be minimal.
Scope 2 (market-based)			Scope 2 market based emissions are not relevant.

Page: CC8. Emissions Data - (1 Jan 2015 - 31 Dec 2015)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO₂e

8956

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO₂e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
11531		

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Wastewater treatment and discharge	Emissions are relevant but not yet calculated	Emissions are not relevant	Emissions are not relevant	The Polisan Holding wastewater treatment plant operates with high COD and suspended solid removal efficiency. The treated wastewater by Polisan is then transferred to the wastewater treatment plant of Dilovası Industrial Zone, in which the company plants are located, to be treated again and discharged. Therefore, the GHG emission from wastewater assumed to be minimal compared to other emissions in Scope1 and not evaluated for the current disclosure.

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Assumptions Metering/ Measurement Constraints	Scope 1 emissions are reported based on calculations in which reliable databases for emissions factors such as IPCC 2006 Guidelines and IPCC 5th assessment report were utilized to minimize uncertainties arising from calculation uncertainties. In addition, the Company manages its operations through ISO 14001 and ISO 50001 management systems to minimize uncertainties arising from inventory data.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Assumptions Metering/ Measurement Constraints	Scope 2 emissions are reported based on electrical energy use that continuously measured and reported inline with the ISO 50001 management system. Therefore, the uncertainty in related activity data assumed to be minimal.
Scope 2 (market-based)			Scope 2 market based emissions are not relevant.

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

9697

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
11573		

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Wastewater treatment and discharge	Emissions are relevant but not yet calculated	Emissions are not relevant	Emissions are not relevant	The Polisan Holding wastewater treatment plant operates with high COD and suspended solid removal efficiency. The treated wastewater by Polisan is then transferred to the wastewater treatment plant of Dilovası Industrial Zone, in which the company plants are located, to be treated again and discharged. Therefore, the GHG emission from wastewater assumed to be minimal compared to other emissions in Scope1 and not evaluated for the current disclosure.

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Assumptions Metering/ Measurement	Scope 1 emissions are reported based on calculations in which reliable databases for emissions factors such as IPCC 2006 Guidelines and IPCC 5th assessment report were utilized to minimize uncertainties

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
		Constraints	arising from calculation uncertainties. In addition, the Company manages its operations through ISO 14001 and ISO 50001 management systems to minimize uncertainties arising from inventory data.
Scope 2 (location-based)	Less than or equal to 2%	Assumptions Metering/ Measurement Constraints	Scope 2 emissions are reported based on electrical energy use that continuously measured and reported inline with the ISO 50001 management system. Therefore, the uncertainty in related activity data assumed to be minimal.
Scope 2 (market-based)			Scope 2 market based emissions are not relevant.

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CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.057	metric tonnes CO2e	metric tonne of product	102420	Location-based	13	Increase	In 2016, the carbon footprint per unit manufactured product by Polisan Kansai Boya increased by 13% compared to 2015. The reason of the increase is that, in 2016 Polisan Kansai Boya started to provide its own logistic services and therefore established new logistic centers country wide. With the opening of 4 new

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
							logistic centers in 2016 (in addition to 5 existing), the number of freight vehicle in Polisan Kansai Boya fleet increased from 26 to 70, which caused an increase in fuel consumption by company owned vehicles and therefore carbon emission increased compared to 2015.
0.00058	metric tonnes CO2e	Other: metric tonne of handled product	5301277		4.2	Decrease	In 2016, the carbon footprint per unit handled product by Poliport Kimya decreased by 4.2% compared to 2015 thanks to the fuel saving projects in vehicles used in operations.
0.08	metric tonnes CO2e	metric tonne of product	152131		0	No change	In 2016, the carbon footprint per unit manufactured product by Polisan Kimya was kept constant compared to 2015.