SUSTAINABILITY REPORT 2012

Tropicana



Pursuing Sustainable Excellence



INDORAMA VENTURES PUBLIC COMPANY LIMITED

VISION

Indorama Ventures will be one of the leading global producers in the polyester space with our key focus on people and processes, thus making us one of the most admired companies in the world.

MISSION

We will continuously upgrade the quality of our products and services through the involvement of stakeholders and by utilizing world-class processes to attain customer delight, thus becoming a preferred supplier. We will institutionalize people learning as a key factor for business growth.

VALUE PEOPLE FIRST

We believe that people are our core strength, be it our employees, suppliers, customers, shareholders or other stakeholders. Their involvement and satisfaction are the key drivers for our success and growth.

CUSTOMER DELIGHT

We believe we exist because of our customers. We focus our activities to achieve customer delight and loyalty for a long lasting relationship.

SOCIAL RESPONSIBILITY

We believe in being responsible and caring for society; maintaining as well as enhancing the environment around us.

CORPORATE GOVERNANCE

We believe in transparency, accountability and ethics. We aim to achieve the highest degree of governance in accordance with best practice.

QUICK FACTS

IVL is registered in Thailand as a public company with limited liability Indorama Ventures itself is a holding company conducting business through operating subsidiaries.

66% is owned by the Lohia family, the rest is free float. The Company is listed on the Stock Exchange of Thailand under the symbol "IVL"

2012

9,000 EMPLOYEES





4Z SITES



210,785 NET SALES

* All as of December 31, 2012

SUSTAINABILITY REPORT 2012

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INDORAMA VENTURES STRONGLY BELIEVES THAT SUSTAINABILITY OF THE BUSINESS MUST RELY ON BOTH INTERNAL AND EXTERNAL FACTORS AND THESE MAY INVOLVE ISSUES THAT ARE NOT INITIALLY NOTICEABLY BUSINESS-ORIENTED. IT IS BECAUSE WE WISH TO WITNESS THE LONG-TERM VISION OF THE BUSINESS THAT WE APPRECIATE THERE ARE MANY COMPLEX INTER-LINKAGES BETWEEN OUR BUSINESS AND THE ENVIRONMENT.

GROUP CEO STATEMENT

We recognize that PET is better for the environment than glass or aluminum if we can persuade the public to reduce, reuse and recycle. We know that our factories will be able to lower their impact on the surrounding environment, lower our consumption of electricity and build better relationships with local communities if we persuade our employees to take a personal interest and be involved.

2012 was a year of challenges to the business yet the Company continued to pursue its CSR activities regarding sustainability and focused on employee development. The Company is developing its reporting system to build a cohesive overview of its sustainability efforts, a challenge that will be the backbone of its efforts to work consistently towards its long-term goals under the seven pillars of its growth. We now have a project named MIS2 that collects operational and financial data from all subsidiaries so that management can build a picture of events globally that will increase productivity and track improvements to the economic operation of the business. One of the key side effects of this will be improvements to our efficiency, which will lower our costs and thus contribute to our sustainability. I look forward to pursuing our plans for long-term sustainability by working closely with all our stakeholders so that we can rise to become one of the most admired companies in our industry.

ALOKE LOHIA GROUP CEO INDORAMA VENTURES PCL

INDORAMA MESSAGE FROM DIRECTOR AND CHAIRPERSON OF THE SUSTAINABILITY COMMITTEE

The Company holds a long-term vision of minimizing its impact on the environment by seeking to minimize its use of carbon-based resources and to be a trusted partner in nearby communities. To achieve this, IVL continuously seeks to lower its energy use and decrease the amount of waste produced by the business through the re-use and recycling of its resources; through the use of alternative energy sources and by seeking to become more efficient over time.

In the medium-term, this is being implemented through plant activities that reward employee engagement in the reduction of the use of energy; in the short-term we continuously provide training and other education opportunities for employees and adjacent communities on waste education and recycling methods. Besides the environment, business sustainability is created via our respect for the rights of others as detailed in the Universal Declaration of Human Rights and its two corresponding covenants, The International Covenant on Civil and Political Rights and The International Covenant on Economic, Social, and Cultural Rights, the principles of which are enshrined in our corporate policy regarding human rights. We view corporate success as achievable only on the basis that people are given an opportunity to work in fairness and equanimity with others. Other policies on staff code of conduct, disclosure and business ethics aim to ensure the Company is beyond reproach in its business conduct, which is part of our corporate vision of being an admired company. The Company views the use of PLA biodegradable plastic as a potential material to be used in the business in response to demands from customers and consumers for a less carbon-dependent material. Although there is some time to go before such materials become a low cost substitute for current plastics, and questions raised about the substitution of food crops on available land still remains a concern, there is still a need to explore the possibility of food-based plastics that can degrade naturally. Waste management will still remain a global issue as discarded PLA materials will not disappear overnight. The Company encourages recycling of all waste, especially PET, as a proven method of environmental conservation.



Key events that have helped to encourage sustainability included our pavilion at the BOI Fair in 2012, which emphasized the use of re-sued and recycled materials in fashion and furniture; the promotion of women's activities such as breast cancer awareness and fiscal disciplines in personal finances. The BOI Fair was a huge triumph for the Company, which took the opportunity to educate not only about our business but the importance of reducing, re-using and recycling PET and Polyester fibers and yarns.

All companies in the IVL group have individual targets to reduce consumption of carbon-based materials and lower their impact on the environment and local community.

The Company has set a target of continuous reduction of waste, energy use and environmental impacts. At current rates reductions are still finite but 1-3% energy reduction overall is reasonable over the next 3-5 years.

By using the seven pillars in our sustainability initiatives, the Company incorporates activities with corporate growth. We have health and welfare activities for employees and local communities often jointly, to ensure internal and external awareness of the need to lower our impact on the community. Employees also receive knowledge-based training on health and financial issues to ensure they can live healthy and fulfilling lives.

This year we are following the Global Reporting Initiative in writing this report. It requires more depth of reporting than previously but we understand that this is the future of sustainability reporting and we look forward to providing you with hard evidence of our progress going forward.

SUCHITRA LOHIA DIRECTOR AND CHAIRPERSON OF THE SUSTAINABILITY COMMITTEE INDORAMA VENTURES PCL.



Įndorama BUSINESS OVERVIEW



INDORAMA VENTURES – WE'RE CLOSER THAN YOU THINK

WHO WE ARE AND WHAT WE DO

Indorama Ventures (IVL) is a global petrochemicals company based in Thailand. A specialist in the Polyester Value Chain, the Company acts as a bridge between the upstream oil and gas industry and downstream fast-moving consumer goods companies. Many products that consumers use in their daily lives, like soft drink bottles, sports clothes, home furnishings and even car tires are made with our products.

Indorama Ventures operates in 15 countries on four continents, Asia, Europe, North America and Africa. Global sales and marketing are conducted from Thailand; however there is a commercial director at the sites abroad who takes care of local customers. Approximately 43% of operating capacity is in Asia, 27% in Europe, 30% in North America and 1% in Africa.

QUESTION:

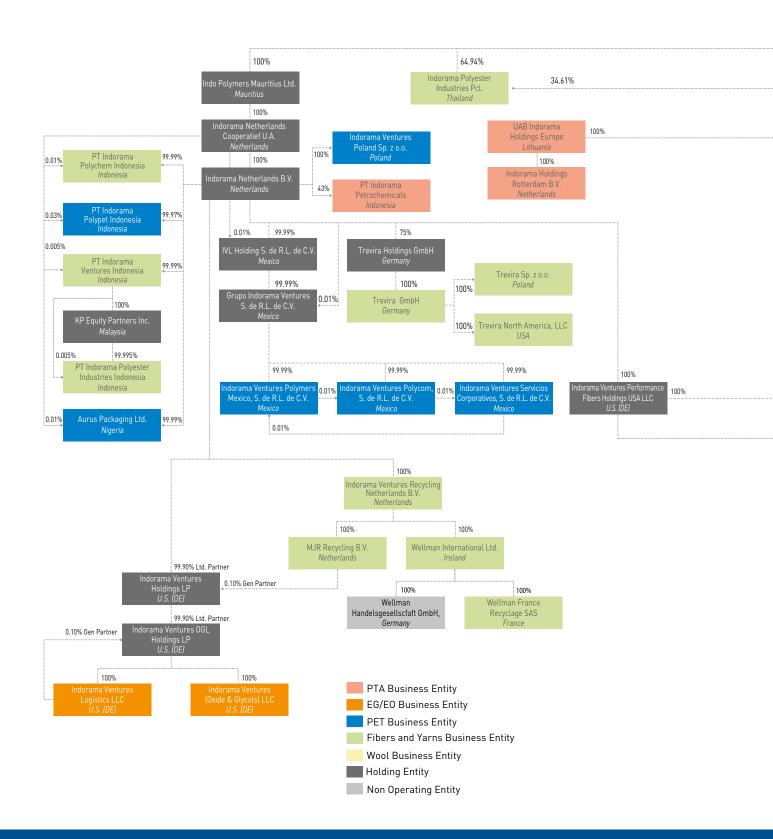
DOES PLASTIC TAKE A LONG TIME TO DETERIORATE?

Although it is true that it takes hundreds of years for plastics to deteriorate into the soil, the same is true for aluminum and glass (which is estimated to take a million years). Rather than wait for this to happen, people need to be proactive and separate their household waste so that plastic can go to be recycled. With more recycling, there would be less concern about post-consumer waste.

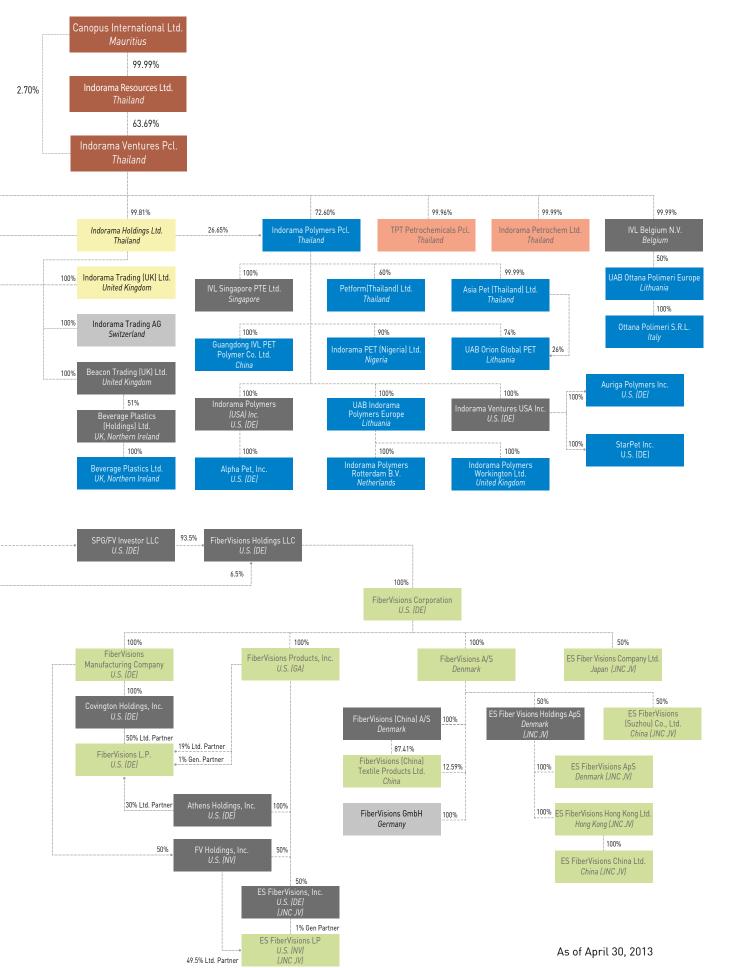




FIGURE 1: CORPORATE STRUCTURE OF THE INDORAMA VENTURES GROUP









PRODUCTS AND SERVICES

Indorama Ventures has three major business segments organized by product:



Polyethylene Terephthalate, or PET, is the main product of our largest operating unit. Combined, the PET and packaging business has 20 sites in 12 countries on four continents. The PET business segment primarily comprises the manufacture and sale of PET resin, a plastic polymer resin. PET is used mainly as a packaging material, typically for soft drinks and water bottles and boxes for foods like salads found in supermarkets, but also more and more it is used for home care, e.g. liquid soap bottles and personal care, such as for shampoo bottles and the clear bubble packaging used for pharmaceuticals. More recently, PET has been used as the film that covers solar panels.

A truly global PET player, IVL is the only PET producer with a presence in Europe, North America, Asia and Africa and market leadership in Europe and North America. We produce a variety of PET resins, including hot-fill, high and low intrinsic viscosity, quick heat and general grade, to serve a variety of markets including carbonated soft drinks, bottle water, other beverages, food and other applications.

IVL estimates that its total global market share for PET is approximately 14.5% by capacity. In North America, the company holds approximately 33% of the market by capacity and in Europe it has approximately 33% market share by capacity.

FIBERS AND YARNS



The Fibers and Yarns business segment primarily comprises the manufacture and sale of Polyester, Olefin, Bi-component and Wool fibers and yarns. We manufacture a broad range of products serving both the commodity and non-commodity segments.

As of today, the Company has 14 manufacturing sites in eight countries on three major continents and is a global leader.

POLYESTER FIBERS AND FILAMENTS

Polyester fibers are most commonly used for apparel, from sportswear to high fashion; home textiles, such as bedding and carpets; higher-margin products include non-woven materials like surgical gowns; technical textiles like filters and automotive uses like carpets and insulation.

POLYOLEFIN FIBERS

Olefin is abrasion, stain, sunlight, fire, and chemical resistant and has the advantage of being colorfast. Olefin fibers can be multi- or monofilament and staple, tow, or film yarns. The fibers are colorless and round in cross section. This cross section can be modified for different end uses. The physical characteristics are a waxy feel and colorless.

WOOL

Our wool business is a niche that comprises the development, production and sales of worsted wool yarns and wool tops. Worsted wool yarn is a high quality wool product, used mostly in high-value retail textile applications such as quality woven apparel and knitwear and premium bedding and other interior textile products.



FEEDSTOCK



The Feedstock segment comprises the Purified Terephthalic Acid (PTA) and Monoethylene Glycol (MEG) businesses. The raw material for PTA is Paraxylene (PX), which is part of the aromatics chain of petrochemicals, coming from naphtha and crude oil, while MEG comes from ethylene and natural gas.

PTA

PTA is an organic compound. This colorless powder is a commodity chemical, used principally in the manufacture of Polyethylene Terephthalate (PET), which is generally used to make clothing and plastic bottles.

Most PTA is consumed as a feedstock of PET, however a few small niche uses occur, such as in the analgesic drug oxycodone, which occasionally comes as a terephthalate salt. More visibly, Terephthalic acid is used as filler in some military smoke grenades creating a thick white smoke when burned.

MEG

MEG is an organic compound. In its pure form, it is an odorless, colorless, syrupy liquid. Its major end are as antifreeze for automobile radiators, which accounts for over 50% of ethylene glycol's commercial uses, and as raw material in the production of PET, which accounts for 40% of total ethylene glycol consumption globally. Besides automobiles, MEG is often used as a medium in liquid cooled computers, chilled water air conditioning systems and geothermal heating/cooling systems.

For all of these operations, IVL has stringent health and safety procedures in place to ensure that our products and manufacturing processes have no or limited impact on employees and the local community. At every stage of the product's life cycle we ensure that we assess these health and safety impacts to mitigate or eliminate risk to the extent possible. We also proactively seek to assess any health or safety risk related to the products themselves, for instance ensuring that we comply with regulations governing the products themselves. In such cases, secure transportation of raw materials is a key concern and every effort is made to ensure that no serious accidents occur during their transportation. This is one area that the Company has achieved success over the long term.

We are also proactive in seeking certification of the quality of our end products. While our major customers are mainly in the food and beverage industry and therefore have strict requirements regarding the consistency of quality of our products, we have also applied ISO certification and many of our factories to ensure that quality of the products is never compromised by health or safety impacts. In the USA for instance, our company actively sought and received a quality systems evaluation from AIB International, a hallmark in Food Safety and Quality Systems Evaluation in 2012. We were the first PET Company ever to achieve this certification in the USA.





2012 FINANCIAL INFORMATION BY PRODUCT



SALES REVENUE

4,294 US\$ million

PET

CAPACITY & UTILIZATION

3,261,176 Production capacity (in tonnes)

2,555,067 Production volumes (in tonnes)

78% Utilization rates (%)

FIBERS & YARNS

1,359 US\$ million

POLYESTER FIBERS & YARNS

842,820 Production capacity (in tonnes)

781,578 Production volumes (in tonnes)

93% Utilization rates (%)

WOOL YARNS

5,900 Production capacity (in tonnes)

1,007 Production volumes (in tonnes)

17% Utilization rates (%)

70 US\$ million 182 US\$ million

FEEDSTOCK 2,210 US\$ million

2,171,246 Production capacity (in tonnes)

1,917,225 Production volumes (in tonnes)

88% Utilization rates (%)

OPERATING EBITDA



INDORAMA VENTURES PUBLIC COMPANY LIMITED

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GLOBAL COVERAGE MEANS GLOBAL RESPONSIBILITY

IVL operates in 15 countries across four continents. In Asia, IVL has businesses in China, Indonesia and Thailand. Thailand has one recycling factory adjacent to its Indorama Polyester Industries plant in Nakhon Pathom, near Bangkok. In Europe, there are operations in Denmark, France, Germany, Ireland, Italy, Lithuania, Netherlands, Poland and the United Kingdom. All our operations are located in designated industrial areas or zones and are not adjacent to any protected areas or areas of high biodiversity value and thus we do not have any direct impact on such areas. In fact, the Company seeks to lower our impact on the surrounding area in all locations by ensuring that emissions are minimized and water released into surrounding areas or public water sources is thoroughly treated according to the highest standards to ensure that it is potable by animals and humans. Our environmental policy seeks to achieve the highest caution in managing the local environment and management takes the greatest care to avoid impacting biodiversity in the areas around our sites. With no significant spill of chemicals or untreated water to date, we are striving always to apply best practice in environmental management into corporate policy, business decisions, development and delivery of products and services, purchasing and supply management.

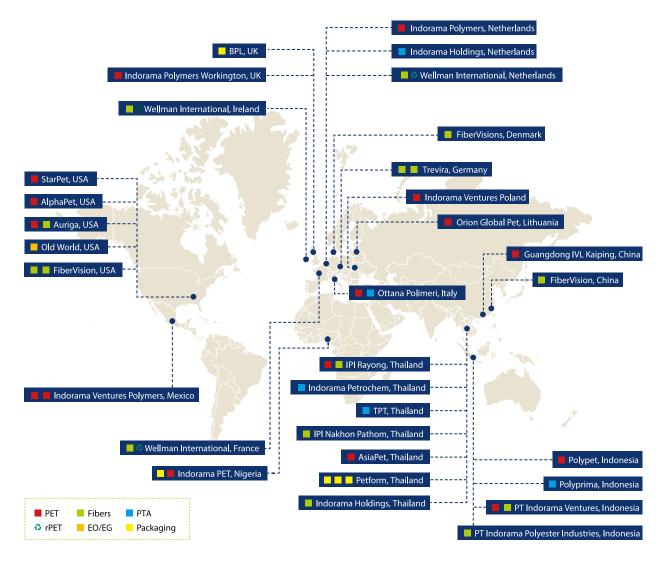
IVL expanded its PET production footprint into Europe in 2006, with the commencement of the Orion Global Pet facility in Lithuania. Today, IVL accounts for 35% of the European market and is the premier producer in the region. The top three producers in Europe accounted for an estimated 60% of total market in 2011.

In Europe also, we are the largest PET recycler through our wholly-owned subsidiary Wellman International. Wellman International has two collection centers, in the Netherlands and France, which sort waste material and send PET waste to the plant in Ireland, which converted the PET to either fibers or bottle grade resin.

In the North American market, IVL has operations in the United States and Mexico. We entered North America and began manufacturing in 2003, with the acquisition of the StarPet facility. Today, the Company accounts for 33% of the North American market and held the second largest market share. The top three North American producers accounted for 89% of the whole market in 2011.

IVL commenced operations in Africa in 2012 with the start-up of new PET plant in Nigeria to serve its global, branded, fast-moving consumer drinks customers and others.

FIGURE 2: OPERATING SITES GLOBALLY



QUESTION:

DOES FREEZING PLASTIC WATER BOTTLES RELEASE DIOXINS INTO WATER?

No. The claim that plastic water bottles will release dioxins when frozen is entirely unfounded. So is the claim that plastic food wraps and containers can release dioxins in the microwave oven.

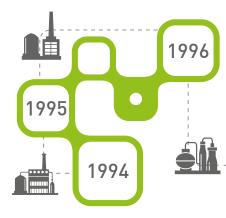
The vast majority of plastics used in food wraps, packaging containers and beverage bottles do not contain the chemical constituents that form dioxins. In addition, dioxins are a family of compounds that are produced by combustion at high temperatures. They can only be formed during combustion at temperatures typically above 700 degrees Fahrenheit; they cannot be formed at room temperature or in freezing temperatures. On the other hand, freezing actually works against the release of chemicals.¹

¹ http://www.foodsafetymagazine.com/magazine-archive1/aprilmay-2009/the-safety-of-beverages-in-plastic-bottles/

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A BRIEF INTRODUCTION TO THE COMPANY

TIMELINE



1994

IVL commenced business in Thailand in 1994 with Indorama Holdings, which was the first worst wool yarn producer in Thailand. It is now globally recognized as a major producer of premium worsted wool yarns.

1995

We entered the petrochemical industry with the establishment of a PET (Polyethylene Terephthalate) resin facility in Thailand.

PET is a key material between the petroleum industry and consumer goods companies that make bottles and packaging as well as apparel, footwear and other items used in our daily lives. IVL has now grown to be the largest PET producer globally.

1996

We grew our PET business downstream by producing PET preforms, bottles and closures or bottle tops, through a joint venture with Serm Suk Pcl in Thailand. IVL entered the polyester fiber business in 1997 with the acquisition of Siam Polyester which subsequently re-named Indo Poly, a polyester fiber plant in Thailand, eventually becoming the largest polyester fiber producer in Thailand.

2006

2003

1997

1997

2003

The Company expanded PET production internationally with StarPet in the U.S.A.

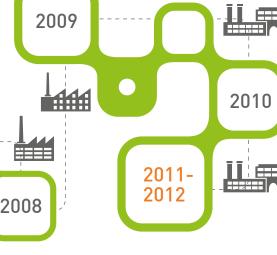
2006

IVL expanded into Europe with Orion Global Pet in Lithuania.

2008

Entry into the PTA business commenced in 2008 with IRH Rotterdam, Indorama Petrochem and TPT Petrochemicals. PTA (Purified Terephthalic Acid) is a feedstock for PET and polyester.

We acquired Tuntex Thailand, the largest polyester fiber producer in the country. IVL acquired two PET resin facilities from Eastman Chemical Company in Rotterdam, the Netherlands, and Workington, United Kingdom.



2009

IVL completed construction of AlphaPet in Alabama, the U.S.A.

2010

IVL launched its new business plan for the next four years, called Aspiration 2014. The plan calls for a tripling of total production capacity by 2014 to 10 million tonnes. We acquired a business in Italy through joint venture and a utilities company to power our Rotterdam plant.

2011-2012

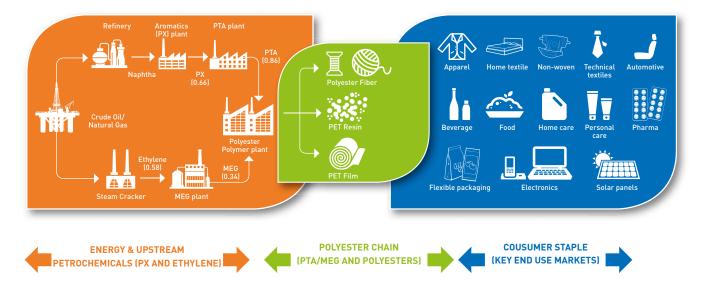
Acquisitions were made in the U.S.A. Mexico, Germany, Indonesia and Poland, with entry into R&D the through acquisitions in the US and Germany, as well as a joint venture for a PTA facility in Indonesia.

Expansions were announced at plants in Indonesia, the Netherlands and Poland. Recycling became a major strategy with a new plant in the U.S.A. and the acquisition of Wellman International in Europe. Entry into the value-added hygiene sector commenced with the acquisition of FiberVisions in the U.S.A. We acquired Polypet in Indonesia, BPL in the UK and Old World MEG in the U.S.A. <u>14</u>



IVL operates in four geographic regions. We offer world-class customers a broad product portfolio of polyester polymers for standard as well as special applications to a wide range of markets on a global basis. Our principal products are all intermediates connecting the oil and petroleum industry with fast moving consumer goods (FMCG) producers.

FIGURE 3: THE POLYESTER VALUE CHAIN BRIDGE BETWEEN PETROCHEMICALS AND FMCGs



Note: 1T of PTA requires .66T of PX; 1T of MEG requires 0.58T of Ethylene; 1T of Polyester polymer requires .86T of PTA and .34T of MEG Source: IVL Analysis

QUESTION:

IS BOTTLED WATER HARMFUL TO THE ENVIRONMENT?

In the bottled water sector, the incentive is to reduce the amount of plastic used in bottles, use biodegradable materials, or use recycled plastics. Over the last decade, the industry trend has been to develop and use bottles that are thinner and lighter, using less plastic – the weight of the typical water bottle is about half that of other packaged beverages. In recent years, more bottlers are using recycled plastic by blending recycled PET (rPET) with virgin PET. The use of rPET in water bottles can resulted in as much as 100% recycled content.²



² http://www.foodsafetymagazine.com/magazine-archive1/aprilmay-2009/the-safety-of-beverages-in-plastic-bottles/

SERVING OUR WORLD-CLASS CUSTOMER BASE-GLOBALLY PARTNERING CLOSELY WITH GLOBAL MAJORS

PET resin is used in packaging applications under several categories: food and beverage packaging, such as carbonated soft drinks, water, milk, ice tea and coffee, health and sports drinks, alcoholic drinks, beer, juices, jams and sauces and edible oils; home care products packaging, such as shampoo, detergents, cosmetics and cleaning solvents; health care product packaging, such as blister packs for medical supplies and pharmaceuticals. Besides these, PET has other industrial uses such as signage, transportation and construction, furniture and sanitary ware.



SALES BY REGION (2012)



40%

NORTH AMERICA

33%

EMEA

27%







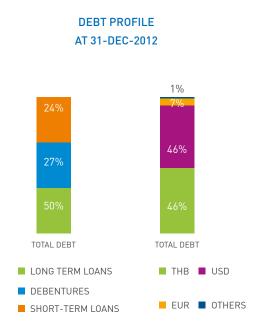
2012 HIGHLIGHTS ONGOING MAJOR PROJECTS UNDER IMPLEMENTATION



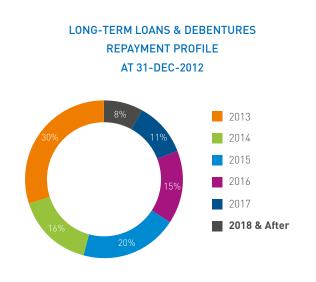
All planned expansion are accretive to earnings and have a clear strategic rationale for expansion.

On completion of all the annouched acquisitions and expansions, IVL will have a total capacity of 9.0 million tonnes per annum (including joint ventures Ottana Polimeri, Trevira and Polyprima, which are being accounted for as equity in come).

STRONG FINANCIAL POSITION



Total debt of which US\$ 0.6 billion is short-term and US\$ 2.0 billion is long-term.



	2012	2011	
Fixed%	38%	16%	
Floating%	62%	84%	

DEBENTURES ISSUED BY INDORAMA VENTURES

OCTOBER 2011	APRIL 2012	DECEMBER 2012			
<mark>Tranche 1</mark> : 5-Year Tenor : Year 1-3 : 4.50% p.a. , Year 4-5 : 5.05% p.a.	Tranche 1 : 5-Year Tenor : Year 1-3 : 4.45% p.a., Year 4-5 : 5.20% p.a.	Tranche 1: 6-Year Tenor : Year 1-6 : 4.52% p.a.			
Tranche 2 : 7-Year Tenor : Year 1-4 : 4.75% p.a., Year 5-7 : 5.50% p.a.	Tranche 2 : 10-Year Tenor : Year 1-3 : 5.10% p.a., Year 4-7 : 5.60% p.a., Year 8-10 : 6.00% p.a.	Tranche 2 : 8-Year Tenor : Year 1-8 : 4.78% p.a.			
<mark>Tranche 3</mark> : 10-Year Tenor : Year 1-4 : 5.00% p.a., Year 5-8 : 5.50% p.a., Year 9-10 : 6.00% p.a.	Tranche 3 : 5-Year Tenor : Year 1-5 : 4.73% p.a.	Tranche 3 : 10-Year Tenor : Year 1-10 : 5.11% p.a.			
<mark>Tranche 4</mark> : 5-Year Tenor: Year 1-5 : 4.70% p.a.	Tranche 4 : 7-Year Tenor : Year 1-7 : 5.09% p.a.	Tranche 4 : 12-Year Tenor : Year 1-12 : 5.28% p.a.			
Tranche 5 : 7-Year Tenor: Year 1-7 : 5.04% p.a.	Tranche 5 : 10-Year Tenor : Year 1-10 : 5.52% p.a.				
Tranche 6 : 10-Year Tenor: Year 1-10 : 5.35% p.a.					
 Issue Credit Rating: A+ by TRIS Rating Interest is payable semi-annually. The minimum subscription amount is 100,000 Baht for each tranche with subsequent multiples of 100,000 Baht. Total offering up to 7,500,000 units offered at a price of 1,000 Baht per unit. Total offering up to 7,500,000,000 Baht The debenture raised 7,500,000,000 Baht 	 Total offering up to 9,400,000 units offered at a price of 1,000 Baht per unit. Total offering up to 9,400,000,000 Baht. 	 Interest is payable semi-annually. Minimum subscription amount of 100,000 Baht for each tranche with multiple of 100,000 Baht. Total offering up to 4,780,000 units at 1,000 Baht per unit. Total offering up to 4,780,000,000 Baht. 			

CHANGES IN THE CAPITAL STRUCTURE AND RECENT GROWTH OF THE BUSINESS THROUGH ACQUISITION.

Total shares	4,814,257 m	#acquisition in 2011	B (~US\$800m)
Right Offer - Capital raised 2011	~\$520m	#acquisition in 2012	4 (~US\$1,000m)
IPO raised in 2010	~\$120m		
Free float	34%	Lohia Family	66%

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IVL INSTALLED CAPACITIES BY SEGMENT, REGION AND COMPANY

YEARS	YR'2011	YR'2012	YR'2013E	YR'13% OF IVL	YR'2014E	YR'2015E	YR'15% OF IVL
Qty in MT							
OXIDE & GLYCOLS	-	550,000	550,000	8%	550,000	550,000	7%
NA	-	550,000	550,000	8%	550,000	550,000	7%
Indorama Ventures (Oxide & Glycols) (14)	-	550,000	550,000	8%	550,000	550,000	7%
PET	3,105,000	3,592,800	3,592,800	50%	3,653,800	4,193,800	52%
China	406,000	522,000	522,000	7%	522,000	522,000	7%
Guangdong, China (4)	406,000	522,000	522,000	7%	522,000	522,000	7%
Europe	793,000	980,000	980,000	14%	1,041,000	1,041,000	13%
Indorama Polymers Rotterdam (3)	231,000	418,000	418,000	6%	418,000	418,000	5%
Indorama Polymers Workington	168,000	168,000	168,000	2%	168,000	168,000	2%
IVL Poland (6)	153,000	153,000	153,000	2%	214,000	214,000	3%
Orion Global Pet	241,000	241,000	241,000	3%	241,000	241,000	3%
Indonesia	88,000	188,800	188,800	3%	188,800	188,800	2%
Polypet, Indonesia (2)	-	100,800	100,800	1%	100,800	100,800	1%
PT, Indorama Ventures Indonesia	88,000	88,000	88,000	1%	88,000	88,000	1%
MEA	-	84,000	84,000	1%	84,000	84,000	1%
Nigeria (5)	-	84,000	84,000	1%	84,000	84,000	1%
NA	1,549,000	1,549,000	1,549,000	22%	1,549,000	2,089,000	26 %
AlphaPet	432,000	432,000	432,000	6%	432,000	972,000	12%
Auriga	387,000	387,000	387,000	5%	387,000	387,000	5%
Mexico	478,000	478,000	478,000	7%	478,000	478,000	6%
StarPet	252,000	252,000	252,000	4%	252,000	252,000	3%
Thailand	269,000	269,000	269,000	4%	269,000	269,000	3%
Indorama Polyester -Rayong	91,000	91,000	91,000	1%	91,000	91,000	1%
Indorama Polymers, Lopburi	178,000	178,000	178,000	2%	178,000	178,000	2%
POLYESTER	633,200	870,200	1,212,700	1 7 %	1,239,500	1,239,500	15%
China	-	14,000	14,000	0%	14,000	14,000	0%
Fibervision (9)	-	14,000	14,000	0%	14,000	14,000	0%
Europe	153,000	243,000	243,000	3%	243,000	243,000	3%
Fibervision (9)	-	90,000	90,000	1%	90,000	90,000	1%
Wellman International (8)	153,000	153,000	153,000	2%	153,000	153,000	2%
Indonesia	109,600	109,600	409,600	6%	425,600	425,600	5%
CP4, Indonesia (10)	-	-	300,000	4%	300,000	300,000	4%
IVI, Finne and Gas engine	-	-	-	0%	16,000	16,000	0%
PT, Indorama Ventures Indonesia	109,600	109,600	109,600	2%	109,600	109,600	1%
NA	71,000	188,000	188,000	3%	198,800	198,800	2%
Auriga	71,000	71,000	71,000	1%	71,000	71,000	1%

IVL INSTALLED CAPACITIES BY SEGMENT, REGION AND COMPANY

¥5450	VEIGOAA	VELOCAC	VELOCIOE	VD14.00/		VELOCATE	VELAEN
YEARS	YR'2011	YR'2012	YR'2013E		YR'2014E	YR'2015E	
				OF IVL	105 000		OF IVL
Fibervision (9)	-	117,000	117,000	2%	127,800	127,800	2%
Thailand	299,600	315,600	358,100	5%	358,100	358,100	4%
Indorama Polyester -NPK	116,000	116,000	116,000	2%	116,000	116,000	1%
Indorama Polyester -Rayong	183,600	183,600	197,600	3%	197,600	197,600	2%
IPI Rayong, BICO	-	16,000	16,000	0%	16,000	16,000	0%
IPI, NKP Recycling	_	-	28,500	0%	28,500	28,500	0%
РТА	1,750,000	1,761,000	1,761,000	25%	2,011,000	2,011,000	25%
Europe	377,000	377,000	377,000	5%	627,000	627,000	8%
Indorama Holdings Rotterdam (12)	377,000	377,000	377,000	5%	627,000	627,000	8%
Thailand	1,373,000	1,384,000	1,384,000	19 %	1,384,000	1,384,000	17%
Indorama Petrochem	771,000	771,000	771,000	11%	771,000	771,000	10%
TPT Petrochem (11)	602,000	613,000	613,000	9%	613,000	613,000	8%
WOOL	5,900	5,900	5,900	0%	5,900	5,900	0%
Thailand	5,900	5,900	5,900	0%	5,900	5,900	0%
Indorama Holdings	5,900	5,900	5,900	0%	5,900	5,900	0%
IVL	5,494,100	6,779,900	7,122,400	100%	7,460,200	8,000,200	100%
ASIA	2,551,100	2,808,900	3,151,400	44%	3,167,400	3,167,400	40%
EMEA	1,323,000	1,684,000	1,684,000	24%	1,995,000	1,995,000	25%
NA	1,620,000	2,287,000	2,287,000	32%	2,297,800	2,837,800	35%
Joint Ventures	465,000	965,000	965,000	100%	965,000	979,500	100%
PET	161,000	161,000	161,000	17%	161,000	161,000	16%
Europe	161,000	161,000	161,000	17%	161,000	161,000	16%
Ottana Polimeri (1)	161,000	161,000	161,000	17%	161,000	161,000	16%
POLYESTER	120,000	120,000	120,000	12%	120,000	134,500	14%
Europe	120,000	120,000	120,000	12%	120,000	120,000	12%
Trevira, Germany (7)	120,000	120,000	120,000	12%	120,000	120,000	12%
Thailand	-	-	-	0%	-	14,500	1%
IPI Rayong, BICO - JV (15)	-	-	-	0%	_	14,500	1%
РТА	184,000	684,000	684,000	71%	684,000	684,000	70%
Europe	184,000	184,000	184,000	19%	184,000	184,000	19%
Ottana Polimeri (1)	184,000	184,000	184,000	19%	184,000	184,000	19%
Indonesia	-	500,000	500,000	52%	500,000	500,000	51%
Polyprima (13)	-	500,000	500,000	52%	500,000	500,000	51%

PET

⁽¹⁾ IVL owns a 50% equity interest under a joint venture which will be accounted on an equity basis

⁽²⁾ Announced signing of SPA in March, 2012. Acqusition completed on 9th Aug 2012

⁽³⁾ Expansion at Rotterdam site by adding a new line of production. Start-up production in Q4, 2012

⁽⁴⁾ Acquisitions completed on January 27, 2011. Ongoing capacity de-bottlenecking completed in July, 2012

⁽⁵⁾ Greenfield project started on 19th July 2012

⁽⁶⁾ Announced expansion to be completed in 2014 and start-up production in begin 2015



FIBERS & YARNS

⁽⁷⁾ Joint venture with IVL holding 75% equity stake

⁽⁸⁾ Recycling business to Polyester fibers and yarns

⁽⁹⁾ Acquisition completed on Janaury 6, 2012 and in business of Polypropelene fibers

⁽¹⁰⁾ Greenfield expansion, to start-up production in 2H, 2013

⁽¹⁵⁾ Forming a 50% Joint Venture Company with a global producer of nonwoven fibers to set up Bicomponent Fiber plant at IPI in Rayong, Thailand

FEEDSTOCK

⁽¹¹⁾ Owns and operates a 55 mw Coal Fired Power Plant and generates other utilties at the same site

^[12] Owns and operates a 24 mw Gas Fired Power Plant and generates other utilities at the same site

^[13] Acquisition of a 42% (now 43%) equity stake in Polyprima in Q4, 2011. Plant to be restarted for commercial production in Q2, 2013

^[14] SPA signed on February 6, 2012 and acquisition completed on April 2, 2012. Capacity is on equivalent Glycols.

Packaging capacities not included above

Lopburi Preforms: 905 million, Bottles: 420 million & Closures: 1,548 million

Rayong Preform: 456 million

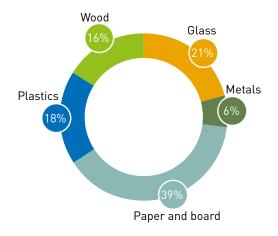
Korat Bottles: 180 million

Ireland Preforms: 587 million, Bottles: 178 million & Closures: 915 million

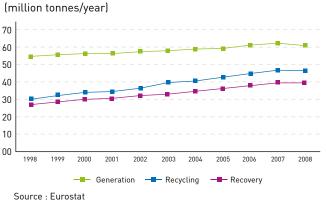
QUESTION:

WHAT IS THE MOST PREVALENT TYPE OF WASTE?

According to the U.S. Environmental Protection Agency, approximately 33 percent of municipal solid waste is made up of paper and paperboard products in the USA. In Europe, Eurostat, the statistics arm of the European Commission, shows that 82% of packaging waste is made of materials other than plastics.



Source : Eurostat - Data Centre on Waste



While plastic waste recycling is relatively new, it is within the reach of most governments if there is grassroots support. In Europe especially, there has been a lot of support for recycling, therefore we see the rapid rise of recovery and recycling there.

Packaging material generated, recycle and recovered (million tonnes/year)



IVL grows through both organic and inorganic growth strategies. In 2012, we acquired FiberVisions, with operations in North America, Europe and Asia; Beverage Plastics Limited in the UK; Polypet in Indonesia and Indorama Ventures (Oxide & Glycols) in North America. We also finished construction of a PET plant in Nigeria, Africa.



ACCELERATING GROWTH IN EMERGING MARKETS

The Company has a strategy to accelerate growth in Emerging Markets, especially in highly populated countries with growing economies and increasing numbers of new middle class consumers.



EXPANSION IN NIGERIA

IVL has commenced operation of its new 84,000 tonnes per annum PET Solid State Polymerization (SSP) facility in Port Harcourt, Nigeria. The facility produces bottle grade PET chips through Solid State Polymerization, the second stage of the PET production process.

Nigeria has an estimated demand of approximately 50,000 tonnes of PET in a country of approximately 170 million people and is one of the fastest growing economies in Africa. The plant, which utilizes state-of-the-art Buhler SSP technology from Germany, is the first PET plant in West Africa and provides IVL with the ability to serve its major customers with global service on four continents.



EXPANSION IN INDONESIA

In March 2012, IVL agreed to acquire 100% of the PET assets of PT Polypet Karyapersada in Indonesia. The assets, which are able to produce up to 100,800 metric tons per annum of PET (Polyethylene Terephthalate) are situated adjacent to the PTA assets of PT Indorama Petrochemicals (formerly known as PT Polyprima Karyesreska) at Cilegon, West Java, which Indorama Ventures acquired under a joint venture in 2011.

This acquisition will further assist us to consolidate our position in the Indonesian market, while the co-location with Polyprima fits in with our integration strategy. Indonesia is a fast-growing market for our customers with an attractive potential for future growth. Low energy and other costs make this a very attractive place for long term investment.



MERGERS AND ACQUISITIONS

In 2012, the Company acquired businesses in the U.S.A., Denmark and China to expand our global reach.



FIBERVISIONS ACQUISITION

FiberVisions Holdings LLC, a U.S.A.-based global manufacturer of specialty mono and bi-component fibers (FiberVisions). Approximately 74% of its capacity is within the non-cyclical, value-added, hygiene space for branded makers of sanitary and feminine care products. The other 26% of production is within the fast-growing industrial and automotive sectors. FiberVisions has a total global capacity of over 221,000 tonnes per annum of specialties, with manufacturing plants in the United States (US), Europe (Denmark) and China.

The acquisition of FiberVisions significantly enhances IVL's position in the world's most specialized fibers business for hygiene products and other growing fiber applications. As the largest producer of



polypropylene staple fiber, FiberVisions complements our strength as the world's largest polyester producer and together we will increase our ability to satisfy customer needs in all parts of the world.



OLD WORLD ACQUISITION

Old World, a U.S.-based Ethylene Oxide ("EO") and Ethylene Glycol ("EG") producer for US\$ 811 million. Now renamed Indorama Ventures (Oxide and Glycols) Inc., it is the largest single EO/EG production facility in the U.S. with Crude EO capacity of 435,000 tonnes per annum.

The acquisition of Old World represents a rare opportunity to integrate into MEG in the most competitive zone for feedstock availability. The acquisition makes IVL the only global player in the Polyester space with integration into both PTA and MEG, allowing IVL to maximize value from the PET chain to contribute positively to IVL's earnings.



EXPAND RECYCLING TO ASIA

IVL added further recycling capacity in Thailand and invested in specialized bi-component fibers and yarns in Thailand and Indonesia.

Today, IVL recycling capabilities include US, Netherlands, Ireland, France, UK and additional recycling locations in Thailand and Indonesia.



SUSTAINABILITY AS FUTURE GROWTH DRIVER IVL CURRENT AND COMMITTED INVESTMENTS IN RECYCLING CAPABILITIES



GREEN PRODUCTS

RECYCLING INITIATIVES LOW CARBON FOOTPRINT

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INCREASING OUR SPECIALTY PORTFOLIO

IVL's broad global reach offers prospective leveraging of R&D assets and processes to maximize the range and speed of development. The patented and branded products we have, along with the anticipated new developments, will create a very specialized and differentiated business unrivaled by our competition. We define specialty products as those that are distinct from staple products in that they are not mass market or not everyone can make them yet. Today, specialty products make up 27% of revenue.

THE BOTTOM LINE AND SUSTAINABILITY GO HAND-IN-HAND

A high-growth, high-margin portfolio has the potential to capture market share in an area that is fast being recognized as better for the environment compared with traditional packaging materials. At Auriga in Spartanburg, South Carolina, we make specialty PET polymers such OxyClear, PolyShield and Polyclear that aid in the packaging of liquids that would be affected over time by the natural breathing of ordinary PET polymers. At Trevira in Germany we manufacture specialty polyester fibers like Trevira CS and Trevira Bioactive. Flame resistant fibers are needed by the aircraft and cruise liner industries, while fibers that inhibit bacteria are needed by hygienic and medical products to ensure health and safety. FiberVisions, which has manufacturing facilities in North America, Europe and Asia produces highly specialized polyolefin fibers like mono- and bi-components fibers that are used by the hygiene products industry globally.

ISSUANCE AND OFFERING OF THAI BAHT DEBENTURES

After the tremendous success of the first debenture issue in 2011, IVL has completed its maiden debenture issue on April and December 2012. The Thai Baht bond, rated A+ by Thailand's TRIS rating, was met such enthusiasm by both institutions and the general public. The Company was able raise 16,900 million baht in cash through the issue of unsubordinated and unsecured Baht debenture to the public.

The issue has achieved its objectives of accessing the Thai bond market, increasing the average maturity of debt, locking-in fixed interest rates for the long term, refinancing existing high cost debt and adding liquidity for planned CAPEX and investments.



AWARDS RECEIVED IN 2012

In recent years, IVL has been recognized by many organizations and received a number of awards for our corporate responsibility, sustainability efforts and governance practices.



UAB ORION GLOBAL PET RECEIVED RECOGNITION AS THE "BEST CHEMICAL COMPANY IN LITHUANIA FOR THE YEAR 2012" FROM THE LITHUANIAN INDUSTRIALISTS CONFEDERATION.



INDORAMA VENTURES BEING ADDED TO THE SET HIGH DIVIDEND INDEX (SETHD) ON DECEMBER 13, 2012.



WELLMAN INTERNATIONAL LIMITED (IRELAND)

RECEIVED THE "SUSTAINABLE EXPORTER OF THE YEAR 2012" FROM THE IRISH EXPORTERS ASSOCIATION (IEA).

INDORAMA POLYMERS PCL/ASIAPET (THAILAND) LIMITED

- "Zero Accident 2011" Award from the Department of Labor Protection and Welfare, Ministry of Labor for achieving less than 1 million working hours without accidents.
- "CSR-DIW Continuous Award 2012" from the Department of Industrial Works, Ministry of Industry in recognition of outstanding practices of Corporate Social Responsibility (CSR).

PETFORM (THAILAND) LIMITED

 "CSR-DIW Continuous Award 2012" from the Department of Industrial Works, Ministry of Industry in recognition of outstanding practices of Corporate Social Responsibility (CSR).

INDORAMA HOLDINGS LIMITED

- Honorable of a Good Model for the Management of Labor and Social Responsibility during the floods of 2011 from the Ministry of Labor.
- A renewal OEKO-TEX® Standard 100 Certificate.
- "National Outstanding Industrial Establishment Award in Labor Relations and Welfare 2012" from the Department of Labor Protection and Welfare, Ministry of Labor for the seventh consecutive years (2006-2012).

INDORAMA POLYESTER INDUSTRIES PCL (RAYONG)

- Green Star Award (Environmental Governance Award 2012) from the Industrial Estate Authority of Thailand (IEAT).
- "National Outstanding Industrial Establishment Award in Labor Relations and Welfare 2012" from the Department of Labor Protection and Welfare, Ministry of Labor for the eighth consecutive years (2005-2012).

INDORAMA POLYESTER INDUSTRIES PCL (NAKHON PATHOM)

- Certificate of "Thai Labor Standard Certification at a Completion Level" from the Department of Labor Protection and Welfare, Ministry of Labor.
- "Health Promotion Enterprise" Award by the Department of Environmental Quality Promotion.
- "Outstanding Workplace Award for Occupational Health and Safety at the National Level in 2012" for the third consecutive years.
- Certificate from the Office of Labor Protection and Welfare Nakhon Pathom in recognition of continuously conducting the White Factory Program.
- "National Outstanding Industrial Establishment Award in Labor Relations and Welfare 2012" from the Department of Labor Protection and Welfare, Ministry of Labor for the fourth consecutive years (2009-2012).
- "Certificate of Excellence" in recognition of distinguish establishment of skill development promotion under



the Skill Development Promotion Act B.E. 2545 (A.D. 2002) from the Ministry of Labor.

- "Green Industry Level 4: Green Culture" from the Ministry of Industry in recognition of the company's cooperation in creating environmental awareness and making this a part of the organizational culture.
- CSR-DIW in the Supply Chain award from the Department of Industries Works.
- CSR-DIW Continuous Award 2012" from the Department of Industrial Works, Ministry of Industry in recognition of outstanding practices of Corporate Social Responsibility (CSR).

INDORAMA PETROCHEM LIMITED

- Green Star Award (Environmental Governance Award 2012) from the Industrial Estate Authority of Thailand (IEAT).
- "Best Manufacturer Award for Safety, Occupational Health and Working Condition 2012" from the Ministry of Labor for the two consecutive years.
- Certificate of Assessment of Clean Technology Encouragement for Industry Project, awarded by Rayong Provincial Industry Office, Ministry of Industry.
- "White Factory Level 1 (Drugs-free Workplace) Award" from the Department of Labor Protection and Welfare, Ministry of Labor.
- "Zero Accident 2011" Awards from the Department of Labor Protection and Welfare, Ministry of Labor for achieving 1,041,076 work-related hours without lost time through injury (from September 28, 2009 – January 31, 2012).
- "National Outstanding Industrial Establishment Award in Labor Relations and Welfare 2012" from the Department of Labor Protection and Welfare, Ministry of Labor for the two consecutive years (2011-2012).
- "Certificate of Assessment for the Promotion of Clean Technology in Industry" from Rayong Provincial Industry Office.
- "CSR-DIW Continuous Award 2012" from the Department of Industrial Works, Ministry of Industry in recognition of outstanding practices of Corporate Social Responsibility (CSR).
- "EIA Monitoring Awards 2011" in recognition of outstanding environment management practices and continuous compliance with EIA environmental management standards by the Office of Natural Resources and Environmental Policy and Planning, Ministry of Natural Resources and Environment.

TPT PETROCHEMICALS PCL

- Certificate of "Thai Labor Standard Certification at a Completion Level" from the Department of Labor Protection and Welfare, Ministry of Labor for two consecutive years (2011 – 2012)
- Certificate of joining Drug Free Workplace Industrial Estate (White Factory Level 1) from Department of Labor Protection and Welfare, Ministry of Labor
- Certificate of Assessment of Clean Technology Encouragement for Industry Project from Rayong Provincial Industry Office, Ministry of Industry
- CSR-DIW Continuous Award, in recognition of outstanding practices of Corporate Social Responsibility (CSR), from Department of Industrial Works, Ministry of Industry, for two consecutive years (2011 – 2012)

PT. INDORAMA VENTURES INDONESIA

• "Customs Award" in recognition of cooperation during a customs audit less than three months before.

INDORAMA VENTURES POLAND SP.Z.O.O.

• ISO 9001 Certification for the first quality certificate for seven years of its inception.

TREVIRA GMBH

• EN ISO 50001:2011 Management System Certificate.

STARPET INC.

• ISO 9001:2008 Certification.

AURIGA POLYMERS INC.

 Recyclable Packaging Innovation for Auriga Polymers Polyclear® from The Association of Postconsumer Plastic Recyclers.

INDORAMA VENTURES POLYMERS MEXICO, S.DE.R.L.DE.C.V.

- "Familiarly Responsible Company" Award from the Secretariat of Labor and Social Welfare in recognition for promoting the best labor practices (gender equity, good workplace conditions, respectful treatment, flexible work schedule and conciliation work-family).
- "Empresa de 10" Certificate granted by the National Institute for the Development of Living Quarters for Workers (INFONAVIT) in recognition of a company's commitment to fulfilling payroll tax obligations in a timely manner.

SUSTAINABILITY REPORT 2012

PREPARING FOR NEW OPPORTUNITIES

The Company firmly believes in transparency, accountability and ethical conduct in pursuit of its mission and acts in accordance within its framework for sound corporate governance to enhance our competitiveness and to best serve the interests of our many stakeholders. IVL thus affords equal importance to all of its stakeholders, both internal and external, such as shareholders, personnel, business partners, customers, competitors, creditors, community, environment and society. We are fully aware that support from each stakeholder will sustain and reinforce our competitive advantage and profitability.



We also have a policy to safeguard stakeholder rights and strengthen corporate sustainability by strictly complying with applicable laws and regulations and to take into consideration their interests. We therefore have issued several important policies on the treatment of Trading Partners and Creditors, Business Partners and Stakeholders, the Environment, Human Rights, Intellectual Property and Whistle Blowers.

It is our topmost priority to protect

shareholders' rights, irrespective of their shareholding, and encourage them to exercise those rights as spelt out in relevant laws. We recognize the basic, legitimate, right of shareholders to participate in Shareholders' Meetings; the right to appoint a proxy to participate and vote at the said meeting; the right to vote for the appointment or removal of Individual Directors; the right to vote on the annual appointment of statutory auditors and fix their remuneration and the right to vote on various other businesses of the Company.

As a reputable company, we want to avoid legal risks arising from the day-to-day workplace environment whenever possible and therefore put into place a written policy on the use of confidential and/or internal information so as to prevent any illegal use and risks arising thereby. The statement is displayed at the head office and at the offices and the working places of all its subsidiaries, for the knowledge of all employees. Our code of conduct also prohibits employees from buying, selling, transferring or accepting the transfer of Company securities by using confidential and/or internal information in any manner that may take advantage of outsiders by using inside information. The Code of Conduct, available on our website, explains among other things our firm stance against bribery and corruption. As a global Company, we would like to ensure that we achieve the highest level of governance. For this reason, the Company has stipulated that it will abide by strict policies regarding corruption and bribery.

We understand that our sustainability rests in part with the sustainability of our customers and therefore we are keenly aware that we have to serve their needs in this are too. For instance, we were able to assist one customer, Coca Cola, in the development of a resin for their PlantBottle® branded a drinks bottle that we call BioPet® and that uses a natural, plant-based raw material in its manufacture. More and more customers are calling for resins and fibers made from recycled PET, which is why we acquired Europe's largest PET recycler, Wellman International, in order to provide recycled resins that can be used for packaging applications or fibers and yarns. Now, we are taking this further with the construction of a PET recycling plant in Alabama adjacent to our AlphaPet PET resin production facility and produces an environmentally-friendly resin we call FuturePet[®].

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The great success of these investments has led to the decision to construct a 16,000 tonne PET recycling plant in Nakhon Pathom, just outside Bangkok in Thailand, to feed our Indorama Polyester Industries plant nearby. The resulting Polyester fibers and yarns may be used as any other but definitely contribute to a cleaner environment.

While promoting our products and services to external stakeholders, we are aware that our marketing communications must achieve high standards of transparency and due diligence before publication or dissemination. The Company therefore ensures that any marketing communications materials are checked by the experts in our business lines to ensure that we are providing completely factual and verifiable information that complies with the strictest guidelines of every market where we compete. We are careful to act responsibly in all our communications so as not to influence our audience with negative stereotypes regarding gender or according to age. Moreover, the Company has never had any incidents of non-compliance with regulations or official guidelines regarding any of our communications.

As the Board of Directors recognizes that there are risks in business that need to be identified, isolated and managed, the Company has established an Enterprise Risk Management (ERM) committee whose function is to identify potential risks to the business and advise management on best practice in these situations.













SUSTAINABILITY THROUGH

Innovation is a key focus area now at IVL. In 2011-2012, we completed a number of acquisitions that added R&D assets and specialty products to our business portfolio. These have provided us a strong platform for new product development and process innovation. We believe innovation will be a key to sustaining our competitive edge and our growth in the future. We have therefore created an Innovation Council to plan and execute strategic initiatives to achieve our business targets and sustainability agenda. Here are some of our most innovative products.

INNOVATION IN THE AMERICAS



INNOVATION IN EUROPE





INNOVATION IN ASIA









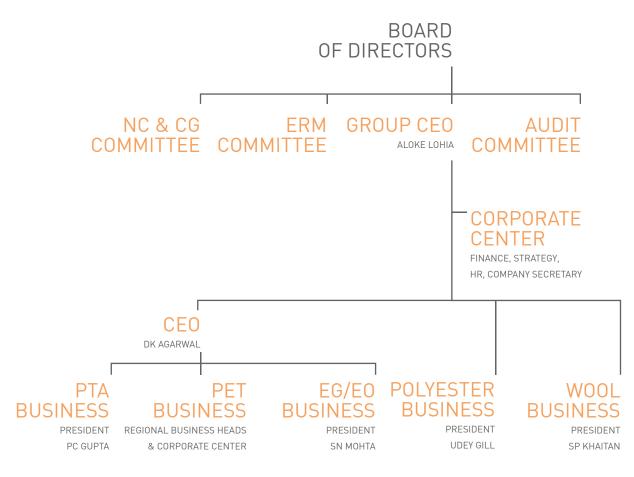
Eco-core is the new name of our truly sustainable polyester staple fiber (PSF) in Europe. This premium ingredient fiber brand represents guaranteed, traceable, sustainable, raw material content and validated sustainable production processes, ensuring a significant reduction in harmful carbon emissions into the earth's atmosphere. The Eco-core brand facilitates consumer recognition in the retail situation, empowering the consumer to make a sustainable choice, and in turn make a contribution to all our futures.

Eco-core is partnering with leading global organizations for a 'Turn A New Leaf Campaign' where Wellman International will donate 1 Euro for every 'like' on their Facebook page. In 2010, Trevira introduced fibers made from PLA (based on Ingeo[™]) into the product range. This raw material is made from 100% renewable plant resources. In PLA production up to 85 percent less greenhouse gas are emitted, and up to 69 percent less energy required to manufacture into resin when compared to traditional polymers. After use, products made from these fibers are recyclable, can be industrially composted or in a downcycling process be degraded into lactic acid, its basic raw material. Ecorama® is a 100% recycled fiber manufactured from PCR flakes to fibers and developed by IVL Nakhon Pathom, Thailand. Ecorama will match the quality and performance of virgin staple fibers. IVL executives launched the brand at IVL Pavilion at BOI Fair earlier this year and the t-shirts made from Ecorama fiber were found to be excellent in comfort and washability. The full commercial production of the same is expected to start by mid-2013 and the capacity will be 50,000 TPA.



GOVERNANCE STRUCTURE

The governance structure of Indorama Ventures is led by its Board of Directors, which advises and directs the top management of the Company. As the Board is responsible for oversight of the Company, it has set up important committees to examine key areas of the management process that would affect internal and external stakeholders directly or indirectly. These committees include an Audit Committee, a Nomination, Compensation and Corporate Governance Committee and an Enterprise Risk Management Committee. These bodies act as reporting and advisory bodies to the Board.



as of May 2013

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OUR BOARD OF DIRECTORS

As of December 31, 2012, the Board had seven independent directors and two non-executive directors. The Chairman of the Board of Directors is a non-executive director.

The Company has several methods of accessing the Board by all stakeholders. First, an email address has been given on the Company website www.indoramaventures.com that directs inquiries and suggestions to the Board. This may be used by all stakeholders regardless of whether they are internal or external. We also direct stakeholders to contact the Investor Relations Officer or the Company Secretary with urgent inquiries or suggestions. Shareholders are actively encouraged to attend the Annual General Meeting of Shareholders at which the Board is present in person to answer questions and receive suggestions. The notice of the AGM and notices on the Company website also inform of this opportunity in advance. Moreover, the Company has a Whistle Blowers Policy that protects employees who wish to bring serious issues to the Company's attention, including Board members.

Board compensation is recommended by the Nomination, Compensation and Corporate Governance Committee. Director compensation is in part linked to the performance of the Company as the bonus is determined by the amount of profit at the end of the year and calculated as a percentage thereof. Operations management and staff annual bonus is also linked to the performance of the business units in which they work, while part of head office annual bonus is partly determined by individual performance and partly by the overall performance of the Company.

The Board of Directors has issued policies to ensure conflicts of interest are avoided, including the establishment of an Audit Committee which is charged with scrutinizing the business for conflicts of interest.

The Nomination, Compensation and Corporate Governance Committee is charged with the nomination of potential directors. The Committee looks at the qualifications of a candidate, including working experience and potential contribution to the Company, including economic, environmental and social topics.

Several policies have been introduced to guide employees on critical issues ranging from the Environment, a Code of Conduct for Directors and Employees, and Human Rights. These policies are available to the public on the Company website. The Company also has a vision, mission and values statement available on the website and incorporated into its Annual Report and Sustainability Report each year.

The Board of Directors monitors and directs the identification and management of economic, environmental and social performance through management reporting and certain committees such as the Audit Committee and Enterprise Risk Management Committee, who are specifically charged with monitoring risks and opportunities. The Board has issued policies to create compliance with internationally agreed standards of behavior by all employees towards customers, suppliers, creditors and the human right of other employees.

The Board of Directors performs an annual self-assessment of its own performance taking into account all parameters of its duties and responsibilities.

IVL has policies and standards that meet with all laws and regulations of each market where it operates and takes precautions prior to entering into business dealings to ensure that such businesses comply with and are not in breach of our policies and guidelines regarding rights of creditors, customers and suppliers, the environment and human rights for instance.

As a Company, we endorse the principles of human rights laid down by the United Nations and embodied in the Universal Declaration of Human Rights and its covenants. The Company also belongs to several Chambers of Commerce and industry organizations.



ABOUT THIS REPORT

This report is based on 2012 corporate data for the year ending December 31, 2012. It covers all operating locations that are managed by IVL worldwide as of December 31, 2012

We use a collection of recommendations from several expert sources such as GRI (Global Reporting Initiatives) and CSR-DIW (Corporate Social Responsibility, the Department of Industrial Works). The hard data is based on a series of data inputs design to convert sustainability activities into actual metrics. Stakeholders are defined as all those who have impact on, or are impacted by, the business of the Company, the actions of its management and the decisions of its Board of Directors. We believe that all these stakeholders will have an interest in this report's content

Sustainability data is segmented into environment and business impacts of the Company; the activities of the Company and its employees together, individually and in association with local communities and authorities.

QUESTION:

IS IT TRUE THAT THE ENERGY USED TO PRODUCE PET BOTTLES IS THE EQUIVALENT OF FILLING THE BOTTLE WITH 25% OIL?



No. The energy inputs of a 12 gram 500 ml PET bottle produced from virgin material is approximately 0.84 milli-joules. If all energy inputs (hydro, materials, etc.) are translated to oil equivalents that would account for less than 2.5% of the bottle's volume. Recycled content, plant based plastics and light weighting are reducing that figure. Recycling preserves 86% of that energy content for use in other products and packing ³

³ Canadian Bottled Water Association

INDORAMA MANAGING SUSTAINABILITY



The Global Sustainability

Committee consists of executive and senior officers from our Corporate Office. The Committee oversees the creation and communication of its Sustainability Policy; monitoring the Company's CSR program and performance. Committee members meet informally as often as required to review CSR projects, bring up issue of concerns, propose solutions and plan future initiatives. The Committee meets formally every quarter with the Director and Chairperson of the Sustainability Committee, Mrs. Suchitra Lohia, to provide regular updates on CSR performance. Each business office or plant is responsible for the creation of activities for its employees and community in line with IVL's Sustainability Policy. Local working groups are set up to coordinate activities with employees, communities and local authorities. All activities are monitored locally for effectiveness and feedback and reported to the Global Sustainability Committee on a monthly basis. The frequency of training is adjusted as need be to create a routine set of modules that are implemented regionally on a regular basis. The Company is aware that different regions have different training needs and the Company will continue to address these issues going forward.

DATA ON PERFORMANCE

This section details each of our sustainable development links to performance indicators.

PERFORMANCE INDICATORS	2010	2011	2012
ASPECT: ECONOMIC			
EC1: DIRECT ECONOMIC VALUE			
(Baht Million)			
Revenue	96,858	186,096	210,785
Gross Profit	14,949	21,254	18,451
EBITDA	13,777	17,121	14,095
Dividend to shareholders	1,430	5,584	3,268
Loans to related parties	-	-	61
Investments and expenditures regarding community development, social infrastructure and environment	21	605	314
EC4: SIGNIFICANT FINANCIAL ASSISTANCE RECEIVED FROM GOV	VERNMENT		
(Baht Million)			
Promotional Privilege	40,848	45,702	38,287
ASPECT: ENVIRONMENTAL			
EN1: MATERIALS USED	2010	2011	2012
(tonnes)			
РТА	1,097,652	1,950,588	2,146,256
MEG	444,288	789,524	868,723
(0.84 tonnes of PTA needed to make a tonne of PET, 0.34 tonnes of	[•] MEG to make a tonne of P	'ET)	
EN3: DIRECT ENERGY CONSUMPTION	2010	2011	2012
(MWh)			
Total Direct Energy Consumption	3,852,053	6,019,432	6,068,710
Oil	119,027	397,633	234,870
Coal	1,949,321	1,972,783	2,121,328
Natural Gas	1,783,705	3,649,015	3,712,512
EN4: INDIRECT ENERGY CONSUMPTION	2010	2011	2012
(MWh)			
Total Indirect Energy Consumption	596,413	1,521,204	2,762,314
Electricity	445,049	1,119,676	1,283,484
Steam	102,740	358,603	1,456,696
Solar Energy	0	460	1,948
Wind Energy	0	0	Ę
Other	48,625	42,465	20,182

EN8: WATER WITHDRAWAL	2010	2011	2012
(m3)	2010	2011	2012
Total water withdrawal	14,156,214	23,651,594	29,561,230
By source	,,		_,,,
Surface water	5,399,879	7,963,885	7,972,532
Ground water	530,384	725,782	771,912
Rainwater	63,809	60,275	53,280
Waste water from another organization	0	30,298	21,017
Municipal water suppliers or other water utilities	7,897,523	9,634,762	14,352,912
Other sources	264,619	5,236,592	6,389,577
Total water discharged	6,650,739	8,423,946	9,724,625
EN10: WATER RECYCLED AND REUSED	2010	2011	2012
Total water recycled or reused	1,133,507	1,409,960	1,439,071
EN22: WASTE	2010	2011	2012
	2010	2011	2012
(tonnes) Total waste generated	37,124	114,908	132,354
Non-Hazardous Waste	27,590	103,933	132,354
Hazardous Waste	9,535	10,975	11,782
Total waste disposed	18,545	25,174	23,300
Non-Hazardous Waste	8,966	14,475	11,959
Hazardous Waste	9,580	10,700	11,331
Total waste recycled	19,046	28,813	33,033
Non-Hazardous Waste	18,709	28,013	33,033
Hazardous Waste	337	807	567
WASTE RECYCLING	2010	2011	2012
Non-Hazardous Waste	2010	2011	2012
Food scrap / Food waste	0	16	42
Paper	455	632	527
Cardboard	433	680	633
Plastics (bottles, cup etc.)	184	5,462	6,233
Aluminium Cans	1	2	26
Metal	333	751	929
Glass	0	1	
Wood	573	1,558	1,217
Textile	0	4	2,237
Others	18,008	19,541	20,907
	10,000	17,041	20,70



Hazardous Waste			
Toner Cartridges	0	0	1
Fire Extinguishers	0	0	0
Fluorescent Tube	0	4	3
Batteries	1	5	5
Aerosols	0	1	1
Infectious Waste from First Aid Room	0	0	0
Electrical and Electronics Equipment	3	23	32
Chemicals / Compounds	273	624	495
Others	168	190	210
ASPECT: EMPLOYMENT / WORKPLACE			
LA1: WORKFORCE		2011	2012
Total Workforce		8,912	9,284
By region (%)			
Europe		25.80	23.90
North America		14.37	17.15
Asia/ Pacific		59.81	58.34
Africa		0.00	0.05
By gender (%)			
Male		76.22	76.23
Female		23.78	23.77
By age group (%)			
Below 30		N/A	21.14
30-50		N/A	59.58
Above 50		N/A	19.26
LA2: NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER			2012
Total No. of New Employee Hires			757
By region (%)			
Europe			8.58
North America			1.81
Asia/ Pacific			83.16
Africa			5.94
Employee Turnover			730
Employee Turnover Rate (%)			786
By region (%)			
Europe			11.98
North America			4.10
Asia/ Pacific			83.73
Africa			0.45



LA7: HEALTH AND SAFETY	2012
No. of reportable injuries	189
No. of reportable occupational diseases	0
No. of lost days	1,031
Average Occupational disease rate	0
Average Occupational injury rate	3.43
Average Lost day rate	17.7
Average Absentee rate (%)	2.3
LA8: EDUCATION AND TRAINING	2012
Amount spent on employee training (Baht Million)	28
No. of employee who attended training	8,523
No. of hours of training delivered	142,225
LA10: HOURS OF TRAINING	2012
Average hours of training per employee by employment category	
Senior	956
Middle-level	2,849
Supervisory-level	3,184
General	42,667
Average hours of training per employee by gender	
Male	4,291
Female	549

Remark:

This is the first year we have reported our activities using the reporting framework from the Global Reporting Initiatives (GRI); therefore, some comparisons cannot be made.

The figures reported were calculated based on the number of operations. The 2010 figures exclude companies acquired in 2011 and 2012. The 2011 figures exclude companies acquired in 2012.

Details for environmental, energy and health & safety indicators are for manufacturing sites only. The figures also exclude the numbers from AsiaPet/ IRP and Indorama Holdings during September – December 2011 due to flooding.

The figure shown under LA7, LA8 and LA10 excludes PT. Indorama Polyester Industries Indonesia and AlphaPet.

SEVEN PILLARS



PILLAR 1: RECYCLING

THE IMPORTANCE OF RECYCLING

Resource and energy depletion are the major issues that the world is facing today. One of the most important responsibilities of companies is to make most efficient use of the available resources, while minimizing their environmental impact. Recycling plays an important part in reducing waste, with GHG emissions, energy and water usage associated with the extraction and processing of raw or virgin materials. Indorama Ventures puts emphasis on recycling as a method of ensuring the sustainability of the world and the company.



In 2011, IVL acquired Wellman International, Europe's largest recycler of PET (Polyethylene terephthalate) bottles as well as a leading European producer of polyester staple fiber products and rPET. This acquisition helps IVL to remain close to its objectives of long-term sustainability and an overall lowering of the Company's impact on the environment globally through the use of proven recycling technology.

Wellman International manufactures high quality polyester products from recycled raw materials and is a pioneer in recycling. It is the most reputed bottle-to-fiber recycler with its own unique technology. It is Europe's largest PET recycler, processing more than 1.6 billion post-consumer PET bottles and containers annually and has a capacity of 153,000 tonnes per annum for rPET and rFibers.

Wellman International has three production facilities in Europe with over 153,000 tonnes of output each year: a polyester fiber plant based in Mullagh, the Republic of Ireland and recycling plants at Spijk in the Netherlands and Verdun in France. The plant in Ireland is capable of converting waste polyester into 100% recycled fiber. Post Recycled Bottles (PCB) are flaked and processed with other waste material to produce bottles and fibers that can be used in a variety of premium applications.



INDORAMA POLYESTER INDUSTRIES (NAKHON PATHOM)

Through its global synergies, IVL has been able to transfer recycling technology to the Company's Asian assets in Nakhon Pathom, Thailand. The recycling project is being located at the site of our existing facility, Indorama Polyester Industries, with a capacity of 28,500 tonnes per annum and is targeted to commence operations in 2013.

Under the project, discarded or "post-consumer" PET bottles will be collected and recycled to produce high-quality resin for making containers for consumer drinks; yarns for premium garments of environmentally-conscious brands and colored fibers for automotive and non-woven applications.

ECORAMA[™] RECYCLED YARN

Indorama Ventures launched the ECORAMA[™] brand for its recycled Polyester Fibers and Yarns products and has recently been awarded a Green Label certificate by the Thailand Environment Institute. ECORAMA[™] is a 100% recycled fiber manufactured from postconsumer resin (PCR) flakes-to-fibers and developed by Indorama Polyester Industries Nakhon Pathom, Thailand. ECORAMA[™] has similar characteristic and performance as virgin staple fibers.





DETAILS OF OUR PERFORMANCE IN RECYCLING **RECO YOUNG DESIGNER COMPETITION 2012**

Indorama Ventures actively promotes activities creating innovation through recycled PET bottles and polyester. One of our proudest achievements is an annual national fashion and furniture design competition called RECO that encourages young designers to find innovative ways to reduce post-consumer waste by re-using and recycling PET and Polyester fibers and yarns in fashion, furniture and accessories. The RECO Young Designer Competition provides a channel for Thai students to express their creativity in fashion and furniture design.

The objectives of RECO are to Reduce, Reuse and Recycle waste to make ecologically friendly products. We also wanted to help kick-start careers for young people who are about to enter, or recently entered, the design world by giving them an awareness of alternative materials.

The competition is divided into two categories; fashion and accessory designs and furniture designs. Both sections must use recycled or reused PET bottles and polyester, with at least 60% of total raw materials creating eco-friendly product design.

After the success of the first RECO Young Designer competition in 2011, we continued in 2012 under the theme "Design for Sustainability". A Press Conference to launch the competition was led by Mrs. Suchitra Lohia at Bangkok's young and trendy shopping center, Digital Gateway at Siam Square on 26 October, 2012. We then held a special workshop at Kasetsart University in the North of Bangkok on 30 November, 2012 to give candidates an overview of IVL and the aims of the competition with some hands-on tips from our judges, who are all well-known and experienced personalities in the design industry.

Following the workshop, our judges selected the final 15 fashion designers and 15 furniture designers from all applicants who sent in their drawings and ideas. The finalists again met the judges who provided an expert consultation session so that the young competitors could improve their designs.

The fashion competitors brought their design to our offices for a fitting on fashion models who were to do the final catwalk presentation. These finalists' high-end costume and creative work was then exhibited, and the winner announced during the final round on March 9, 2013 at Digital Gateway, Siam Square.









OFFICE STATIONARY

In daily use also, IVL uses office stationary such as pens and business cards made from 100% recycled PET.







RECYCLE PAPER FOR TREES PROJECT

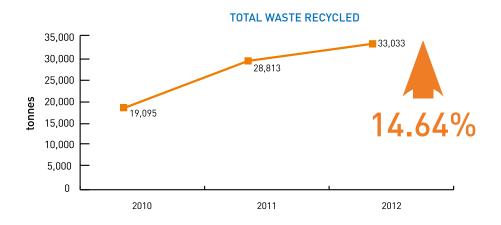
Many people have heard the statistic that "One ton of printing and office paper uses 24 trees". Recycling waste paper helps to reduce the quantity of waste and the number trees cut for paper pulp mills. IVL head office participated in the "Recycle Paper for Trees" Project to collect of used paper in our office to be recycled by the Paper4Trees Organization, Thailand.



HOW WE ARE PROGRESSING WITH RECYCLING WASTE

PERFORMANCE DATA	2010	2011	2012	GRI
Total Waste Recycled* (tonnes)	19,046	28,813	33,033	-

(*non-hazardous waste + hazardous waste)



In 2012, 24.96% of total waste at our manufacturing sites is now recycled. This year IVL recycled 33,033 tonnes of waste, an increase of 4,220 tonnes or 14.64% compared to previous year.

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NON-HAZARDOUS WASTE

Food Scrap/Food Waste (Tonnes) Output 49.53 1,354.09 1,412.88 Recycled - 15.87 41.94 Paper (Tonnes) 0utput 459.12 672.64 604.38 Recycled 455.05 632.16 526.89 Cardboard (Tonnes) 0utput 10.07 780.60 1,076.91 Recycled 6.00 679.70 633.44 Plastics (bottles, cups, etc.) (Tonnes) 0utput 184.30 5,461.52 6,233.20 Aluminum Cans (Tonnes) 0utput 1.00 2.00 618.81 Recycled 1.00 2.00 618.81 Recycled 1.00 2.00 618.81 Recycled 1.00 2.00 25.81 Metals (Tonnes) 0 0.00 200 25.81 Metals (Tonnes) 0 0.00 2.03 20 Output 335.12 1,258.81 951.01 8 Recycled - 1.00 0.30 0 0.030		2010	2011	2012
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Output 459.12 672.64 604.38 Recycled 455.05 632.16 526.89 Cardboard (Tonnes) Output 10.07 780.60 1,076.91 Recycled 6.00 679.70 633.44 Plastics (bottles, cups, etc.) (Tonnes) Output 184.30 4,514.15 4,985.91 Recycled 184.30 5,461.52 6,233.20 Aluminum Cans (Tonnes) Output 1.00 2.00 618.81 Recycled 1.00 2.00 618.81 Recycled 1.00 2.00 25.81 Metals (Tonnes) Output 335.12 1,258.81 951.01 Recycled 333.12 751.10 928.63 Glass (Tonnes) Output 12.00 16.50 13.21 Recycled - 1.00 0.30 Wood (Tonnes) Output 585.06 1,778.03 1,481.47 Recycled 573.06 1,557.77 1,216.78 Textile (Tonnes) Output 25.	Recycled	-	15.87	41.94
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Output 10.07 780.60 1,076.91 Recycled 6.00 679.70 633.44 Plastics (bottles, cups, etc.) (Tonnes) Output 184.30 4,514.15 4,985.91 Recycled 184.30 5,461.52 6,233.20 Aluminum Cans (Tonnes) Output 1.00 2.00 618.81 Recycled 1.00 2.00 618.81 Recycled 1.00 2.00 25.81 Metals (Tonnes) Output 335.12 1,258.81 951.01 Recycled 333.12 751.10 928.63 Glass (Tonnes) Output 12.00 16.50 13.21 Output 12.00 16.50 13.21 Recycled - 1.00 0.30 Wood (Tonnes) Output 585.06 1,778.03 1,481.47 Recycled 573.06 1,557.77 1,216.78 Textile (Tonnes) Output 25.00 111.00 2,248.16 Recycled - <td>Recycled</td> <td>455.05</td> <td>632.16</td> <td>526.89</td>	Recycled	455.05	632.16	526.89
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Output 25.00 111.00 2,248.16 Recycled - 4.00 2,237.16 Others (Tonnes) 26,975.41 32,977.68 33,021.31	Recycled	573.06	1,557.77	1,216.78
Recycled - 4.00 2,237.16 Others (Tonnes) - <	Textile (Tonnes)			
Others (Tonnes) Output 26,975.41 32,977.68 33,021.31	Output	25.00	111.00	2,248.16
Output 26,975.41 32,977.68 33,021.31	Recycled	-	4.00	2,237.16
	Others (Tonnes)			
Recycled 18,007.88 19,541.06 20,906.55	Output	26,975.41	32,977.68	33,021.31
	Recycled	18,007.88	19,541.06	20,906.55

HAZARDOUS WASTE

	2010	2011	2012
Toner Cartridges (Tonne	s)		
Output	-	1.33	1.58
Recycled	-	0.46	0.80
Fire Extinguishers (Tonn	es)		
Output	0.73	0.52	1.67
Recycled	-	-	-
Fluorescent Tube (Tonne	es)		
Output	101.07	105.89	405.14
Recycled	0.23	3.99	2.76
Batteries (Tonnes)			
Output	1.41	5.48	5.08
Recycled	1.00	4.54	5.01
Aerosols (Tonnes)			
Output	1.05	1.69	2.28
Recycled	0.05	0.63	0.73
Infectious Waste from F	irst Aid Rooi	m (Tonnes)	
Output	0.03	8.45	11.57
Recycled	-	-	-
Electrical and Electronic	s Equipmen	t (Tonnes)	
Output	3.55	24.16	35.16
Recycled	3.10	22.62	31.66
Chemicals/Compounds (Tonnes)		
Output	35,349.45	30,243.95	32,142.84
Recycled	273.20	624.10	495.00
Others (Tonnes)			
Output	1,984.36	10,112.48	13,191.49
Recycled	167.56	190.31	210.21





THE IMPORTANCE OF REDUCING WASTE

IVL sites around the world are promoting waste reduction projects to reduce the volume of waste. We incorporate waste reduction principles into our daily operations, whether that means office administrative waste or production input waste. Our waste reduction program ranges from adopting simple waste reduction such as reducing paper consumption to large-scale initiatives that involve the entire operations. We are now successfully reducing waste to much below the regulatory requirements by optimizing production processes and replacing and upgrading equipment. We continue to look for reductions, and where possible, use non-hazardous alternatives. Our target is to bring our final waste disposal amount as near to zero as possible.

PROCESS OPTIMIZATION

Our focus is on increasing efficiency in the production process to minimize raw material use, reduce resource loss and reduce the amount of waste produced. We continue to implement programs that optimize manufacturing processes, upgrade equipment and use state-of-theart technology.

WASTE DISPOSAL

IVL is committed to the disposal of waste in a responsible manner while ensuring compliance with laws and regulations. We are making an effort to reduce the amount of landfill waste produced for instance. We intend to enable this project by raising our employee awareness through training in waste sorting and separation.

ZERO WASTE/ ZERO EMISSION

Indorama Ventures continues minimizing waste generated during manufacturing, including emissions. In the PET industry, we are fortunate that a lot of our emissions are in the form of water vapor. However, we are committed to work toward our longterm vision of zero waste and have an approval process to minimize the volume of disposable material entering into our factories. Our focus is firmly on improving energy utilization at all our facilities to achieve zero waste, including boiler and steam optimization, compressed air optimization, process heat recovery and waste recycling optimization. Many of our trucks in Thailand now run on Compressed Natural Gas (CNG) to ensure our products are delivered with the minimum impact on the environment possible.



ENERGY EFFICIENCY

Improving energy efficiency and reducing energy consumption is a challenge for IVL as we seek to minimize the company's impact on the environment by improving energy efficiency at all our manufacturing sites. We have, however, taken various actions to reduce the amount of energy required and continue to identify further energy efficiency opportunities.

WASTE REDUCTION IS OUR OBSESSION

In 2012, we carried out several projects to reduce the generation of waste. At our FiberVisions Varde plant in Denmark we train all personnel in correct waste sorting and have an environmental policy that always looks for and uses environmentally friendly chemicals. The FiberVisions plant in China reuses fiber bale wrap internally; reuses ropes from its polymer super-sacks for waste packaging and reuses pallets from the local "polymer for nonwovens" industry. At FiberVisions Covington plant in Georgia we have switched from disposable to reusable materials for inhouse storage, including plastic pallets, containers and drums. Moreover, we have implemented an approval process when bringing chemicals onsite to ensure the materials will not create hazardous waste



to the extent possible. We have now replaced the ovens' salt baths for spinneret cleaning and use in-situ treatment of monomer waste that actually prevents it from becoming a hazardous waste. Over in our FiberVisions Athens, Georgia, plant we recycle aerosol cans, implement paper and implemented a cardboard recycle program. We recycle aluminum receptacles and replace plastic pallets with wood pallets where possible. In addition, we implemented recycling program for oily rags which has diverted 23 tonnes from the landfill in the last three years. Alabama's AlphaPet has changed its moisture test method and reduced the number of COD tests to eliminate hazardous waste.

In Texas, Indorama Ventures (Oxide & Glycols) recycles paper and aluminum cans, reuses toner cartridges and refills fire extinguishers. At South Carolina's Auriga we are now evaluating our waste water treatment plant effluent for recycling. We are cleaning out our tank farm tanks too. We are removing hazardous insulation. At our Film Line, we are transitioning to a nonhazardous cleaning agent.

At Indorama Ventures Mexico, we recycle wooden pallets, or perform internal repairs; we also repair heating coils ourselves. We improve aeration at our waste water treatment plant and improved the recirculation of used glycol in the staple products plant. We implemented a campaign to promote the reduction of food waste and reduce the waste of crude MEG.

In Thailand, TPT Petrochemicals improved the process to reduce anaerobic sludge and controlled waste water hydraulic and COD load. We controlled the elimination of used insulation, reusing it when possible. Nearby, Indorama Petrochem reused much of its spent caustic chemicals and the process condensate in its purification section, optimizing plant parameters to reduce CTA residue generation from the production process. We managed to reduce residue by 992 tonnes in 2012. CTA residue generation has come down from 6,994 tonnes in 2010 to 5,566 tonnes in 2012. We now use depleted Hydrobromic Acid as a catalyst in the disposal of CTA residue, which reduces hazardous waste generated in the production process. Indorama Polyester Industries in Rayong is implementing a paper tube recovery

project at its POY department which can reduce paper waste by 20%. It is also reusing wooden pallets and repairing damaged pallets in-house, which can reduce wood use by 56%. AsiaPet/ IRP has recycled damage wooden pallets after repair, trained staff to reduce waste generation and review the lubrication schedule to reduce oil consumption and analyze lab chemicals to reduce generation of waste chemicals.

In Europe, Wellman International is implementing waste management initiatives focused on finding sustainable outlets and diverting almost 400 tonnes from landfill to a waste-to-energy facility. This will account for 22% of the total waste sent off-site for treatment. At Indorama Ventures' Rotterdam site, we grind resin lumps and re-use them, after melt filtration, back into the PET plant. Over in Poland we optimize processes and increase the reliability of the granulation system as well as optimizing the Continuous Polymerization process. In Germany, Trevira implements an internal system and environment matrix with company targets and environmental programs monitored by yearly management

QUESTION:

DOES REUSING PLASTIC BEVERAGE BOTTLES CAUSE HARMFUL CHEMICALS TO LEACH INTO WATER?



No. The U.S. Food and Drug Administration (FDA) carefully reviews food and beverage packaging materials, including the plastics used to make water bottles, before allowing them on the market, so they won't pose a risk to human health. As part of its review, the FDA assesses the migration potential of plastics and the substances with which they are made.

Most convenience-sized plastic water bottles are made from Polyethylene terephthalate (PET), a lightweight, shatter resistant and well-tested material. Based on the results of its extensive review, FDA allows the use of PET in both single-use and repeateduse food and beverage packaging. In fact, refillable bottles made with the same PET resin as single-use bottles are frequently reused in a number of other countries.

Tip: When you choose to reuse a plastic water bottle, don't forget to clean it just as you would any drinking container. Be sure to wash with hot soapy water and dry thoroughly between each use. The concern is that bacteria can thrive in warm, moist environments, and once opened, bacteria can grow in virtually any beverage container under the right conditions. ⁴

⁴ http://www.plasticmythbuster.org

reviews. There is strict control of hazardous waste by the use of internal audits at the plants. Ottana Polimeri in Italy differentiates the collection of every waste in order to expand and optimize recycling operations for non-hazardous waste and installed a new concentrator filter press to reduce the waste from the PTA plant in order to recover chemicals for reuse.

Indorama Polyester Industries Indonesia is sorting and reusing materials and returning some materials to the vendor. We use materials that can be recycled, and returned or reused, such as oil. Where possible, we are changing from hazardous to non-hazardous materials. At nearby Indorama Ventures Indonesia we have changed our canteen cooking system to reduce food waste and use an oil separator to reduce sludge and other waste.

INITIATIVES TO REDUCE GREENHOUSE GAS EMISSION IN 2012

We constantly seek new ways of reducing greenhouse gases by involving our employees in forming their own initiatives to lower the emission of such gases. One of the earliest methods to improve the sustainability of the company and the environment was to offer employees a mass transportation alternative at many of our factories by providing vehicles that could be used to deliver workers to the factory and back in large groups. Buses and pickup trucks modified for passengers are proving to be popular and dramatically reduce the number of staff who use their own transportation.

FiberVisions Varde in Denmark operates boilers at highest efficiency and has moved to more environmentally friendly cooling liquids while in Texas FiberVisions Covington maximizes the use of natural gas as fuel for boilers, fine-tuning its boilers at four plants and FiberVisions Athens fine-tunes natural gas boiler burners twice a year. Indorama Mexico has shut some steam absorption chillers and reduced its steam generation.

Indorama Petrochem has reduced consumption of raw materials and energy by continuously optimizing its manufacturing process and improving energy schemes, reaching a total reduction of CO₂ emission of 84,248 tonnes per year (or 24.8%). TPT Petrochemical has conducted an oxidation reactor agitator retrofit reducing CO2 emissions by 12 kg/Te PTA achieved by reduction in specific consumption of PX by2.73 kg/T PTA, Acetic acid by 1.46 kg/T PTA and IBA 0.24 Kg/T PTA.

Indorama Ventures (Oxide & Glycols) installed a system to recover ethylene and methane from the purge stream prior to incineration, resulting in a saving of 962,650 kg of ethylene per year and reduced methane or ethane flow in wasted gas by 1,678,292 kg.

Indorama Rotterdam commenced a pilot project for anaerobic digestion of PTA FP sludge into biogas. Lithuania's Orion Global Pet achieved total CO_2 emission of 22,003 tonnes/ year (or 0.0964 tonnes CO_2 per tonnes of product) in 2012 and 22,093 tonnes/year (or 0.0971 tonnes CO_2 per tonnes of product) in 2011 and 22,446 tonnes/year (or 0.0976 tones CO_2 per tonnes of product) in 2010.

WELLMAN INTERNATIONAL HAS PARTICIPATED IN A LIFE CYCLE ASSESSMENT (LCA) ON PET BOTTLE-TO-FIBER RECYCLING WHICH SHOWED THAT RPET FIBER HAS A LOWER ENVIRONMENTAL IMPACT, A SIGNIFICANTLY LOWER EFFECT ON NON-RENEWABLE RESOURCES, BOTH BIOTIC AND ABIOTIC, AND CONTRIBUTES TO LOWER GLOBAL WARMING AND PHOTOCHEMICAL OXIDANT FORMATION.

1,130 TONNES OF CO₂ EMISSIONS REDUCED AT INDORAMA POLYMERS WORKINGTON IN 2012



Indorama Polyester Industries Rayong has installed emission equipment for control of oxygen and to reduce the loss of heat from exhaust gases. By controlling the oxygen the plant can reduce natural gas use to 18,506.07 MMBTU per year. Ottana Polimeri monitors CO₂, estimating emissions at about 51,000 tonnes per year and plans to enter an Emissions Trading System (ETS) program in 2013. AlphaPet is turning off an HTM heater for Oxygen control.

INITIATIVES TO IMPROVE ENERGY EFFICIENCY AND REDUCE ENERGY CONSUMPTION IN 2012

It is not enough to just turn off the lights before leaving the office. Indorama Ventures companies identify innovative methods of improving their energy efficiency to enhance the sustainability of the Company and the environment in the long term. FiberVisions Varde in Denmark has improved planning and logistics as well as improved the steam process, direct-spraying steam before stretching; improved ventilation in the cafeteria; improved KSB hot oil pumps and insulated 40 hot oil pumps; improved compressed air, improved trilobal spinnerets, improved out-put, improved servers and virtualized servers, improved gate and door closing and improve drying ovens, resulted in total energy savings of 1,361 MWh in 2012. FiberVisions China has reduced production of waste and seconds at its short spin line and made savings from lighting, resulting in total energy savings of 168.9 MWh in 2012, a reduction of 20.3 MWh from 2011.

FiberVisions Covington has replaced 150 watt flood lights with 34 watt led lights; installed soft start/VFD controller on 150 hp waste fan motors; inspected and repaired compressed air system leaks and steam traps during its summer shutdown, resulting in total energy savings of 679.5 MWh in 2012. Moving toward energy efficiency, the plant will carry out energy auditing. It completed boiler tune-up in December 2012 and plans to modify air compressors for further energy reduction. FiberVisions Athens has replaced its electric steam generator with a natural gas fired unit which has resulted in energy reduction of 1 MWh in 2012. The plant completed an energy audit and initiatives are being implemented such as to install energy efficiency lighting, installed motion sensors for lights in offices and restrooms; upgraded warehouse lighting for on/off control and replaced metal halide lighting/ T12 bulbs with fluorescent T-5 bulbs.

Indorama Ventures Mexico has reduced crude MEG at PET plants sent to GRU; optimized of condensate traps in compressed air systems; used utilities' chilled water in CP-20 by stopping the mechanical compressor; increased temperatures to 60°C in the CP-12 line, stopped chilled water booster pump in the CP-12 line; reduced flow in the steam chest; stopped the operating line during high electricity cost periods; increased temperatures in the quenching of L-7; reduced steam flow in the crimper; optimized the operations of the CP-11PE column; used cooling water instead of chilled water in CP-11; optimized lighting by eliminating 50 lamps; nominated purchased gas in the firm is base annually and monthly and optimized cleaning routines of condensers in air cooled

INDORAMA VENTURES INDONESIA USES NATURAL GAS GENERATED ELECTRICITY TO REDUCE EXHAUST GAS EMISSION.

1,000

TONNES OF SO₂ EMISSIONS REDUCED PER YEAR BY GUANGDONG IVL SINCE 2012



chillers. There are some energy reduction projects under study, including heat recovery from boiler exiting gas, compressed air pressure control, compressor and chiller sequencing, reducing pressure of the quench air blower; substitute electric chillers with new absorption chillers; replace low efficiency pumps and install variable speed drive on the boiler feed water pump.

Indorama Holdings (IRH) has replaced the old chiller with new efficiency chillers; replace metal sheet roofing with better quality insulation; changed air compressor piping and replaced air conditioners with water cooled air conditioners. We expected total energy savings of 1,325,000 KWH/ year. IRH has installed a solar module for generating green renewable energy which will reduce the overall power consumption demand.

TPT Petrochemicals has replaced STG rotor with higher efficiency; air flow control valves in reactors and stopped one vacuum pump in the oxidation process resulting in energy reduction of 710 KJ/ Te PTA Indorama Petrochem has utilized the waste stream to generate chilled water used for air conditioning in the control room building; used flash steam generated from process condensate for use in distillation column, revise PAC steam turbine power output limit and trimming of pump impeller. Through these programs, the plants could reduce energy consumption by 37,404 MWh in 2012. IRPL is studying retrofit options to save energy including recovering energy from reactor off-gas and generating low pressure steam and hiring third party to perform energy audits to identify opportunities for energy savings.

Auriga Polymers has reduced natural gas consumption through steam usage reduction; increased the amount of direct glycol recycling allowing a shutdown of the glycol purification unit; performed a leak repair program, trap and insulation audits, change lighting to be more efficient, vacate large office building and have a dedicated team to address energy issues and initiate daily performance scorecards. These programs have lowered energy consumption by 38,628 MWh compared to 2011.

Wellman International has upgraded lighting, compressed air and effluent optimization. This resulted in energy savings of 456 MWh or monetary saving of \$US 29,260. Wellman has carried out feasibility studies on a Combined Heat & Power (CHP) plant to move towards further energy efficiency.

Indorama Rotterdam commenced a pilot project for anaerobic digestion of PTA FP sludge into biogas, start-up of PET-2 plant with lower specific consumption which will benefit the Company starting 2013 and submitted a new energy efficiency plan for the participation in the Dutch covenant MEE for the period 2013-2016 achieving 2% annual energy reduction till 2020.

Indorama Ventures Poland has reduced steam consumption by using heated EG from the column bottom to make an additive batch; installed separate DEG tanks inside the CP building and carried out a study to reduce the lighting load and switching on and off of the air conditioner in MV, MCC, CC, DCS rooms in summer. The plant has a plan to commission an Absorption Chiller, which will further reduce electricity consumption.

Orion Global Pet has installed HTM heater air preheating system that utilizes waste heat from the process; installed a new conveyor compressor; modified the lighting system by installing an LED system; modified the HVAC system; installed 30 kW solar panels and a 2.5 kW wind generator for office lighting, resulting in a 824 MWh reduction of energy consumption compared to 2011.

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AsiaPet/ IRP has replaced 400 watt HPMV lamps with TL 5 type four 28 watt light fittings with expected power savings of 90,000 baht/year, replace 36 watts TL8 lamps with TL5 type 28 watt light fittings in SSP1 plant expect power savings of 60,000 baht/year; installed sensor to automatic switch off the plant lights during the day time expected savings of 125,000 – 150,000 baht/year; interlinking of cooling tower circulation systems and stop operate cooling tower and cooling water pumps resulted in 1,300,000 baht/year, trail taken for stoppage of 2V41B blower achieved 55 kwh power savings; conduct energy audit to identify opportunities for savings; save on load losses on transformer, reduce transformer/ line losses by improving the power factor.

AlphaPet has optimized cooling water load and eliminate rail yard exhaust fans resulted in reduction of \$37k in energy costs, plan to improve HTM burner efficiency from 87% to 90%.

Indorama Workington has repaired and upgraded its insulation plant-wide and installed a more efficient water chiller, resulting in a 4,357 MWH reduction in energy consumption in 2012.

Trevira has implemented a plant-wide energy monitoring system since 2001; implemented an energy management system since 2010; upgraded the system to ISO 50001 in 2011 and received certification in 2012; installed a frequency controller also in smaller pumps such as glycol and water circuits as well as in stirrers, resulting in 17,670 MWh reductions in energy consumption in 2012.

Indorama Ventures Indonesia has started-up a gas engine project to reduce fuel consumption, cease using dual fuels, upgraded and modified air compressors. The plant's plan is to separate the operating system of air compressors, replace the absorption chiller with a modern chiller and replaced the number of pumps with more efficient pumps.

Indorama Polyester Industries Indonesia has installed a separator air bearing in 12 positions and reduced air compression. The plant has a plan to re-condition the cooling tower pump and chiller.

Indorama Polyester Industries Rayong has changed the electric chiller to an absorption chiller system which will reduce the cost of electricity approximately 3,176,064 KWh per year and improve performance at the motor of the cooling water pump, which is expected to reduce the use of electricity approximately 1,308,564 KWh per year. In 2012, IPI reduced energy consumption by 48,544.76 MWh.

Indorama Polyester Industries Nakhon Pathom has replaced the old low efficiency Low Pressure Screw Compressors (ACL) with a new centrifugal compressor, converted its Chips Conveying System from medium pressure to low pressure system, replaced the old low efficiency High Pressure Screw Compressors for a better efficiency HP Screw Compressor, optimized the Suction Gun Operating pressure for the FDY system to target lowering the generation pressure of HP Air, increase the chilled water supply temperature and install LED tubes.

Ottana Polimeri has reduced electricity consumption. It has inserted an additional heat exchanger on its HTM furnace to increase the efficiency of its continuous polymerization plant; optimized electricity consumption with intervention on various plant items e.g. changes in fan and impellers, insertion of inverters and changes in the loop control with optimization of power consumption on the main air compressor.

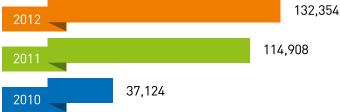


SUMMARY ON PROGRESS OF WASTE REDUCTION

PERFORMANCE DATA	2010	2011	2012	GRI
Total Waste Generated* (tonnes)	37,124	114,908	132,354	EN22

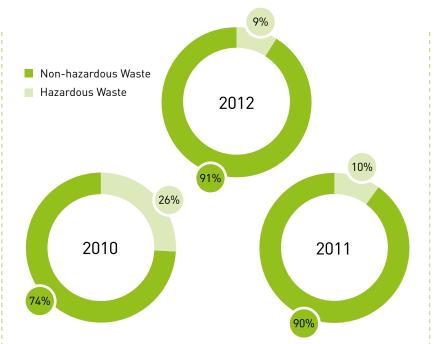
(*non-hazardous waste + hazardous waste)





In 2012, IVL generated a total of 132,354 tonnes of waste, an increase of 17,446 tonnes or 15.18% from FY2011. This is due to increase production volume of each plant and some expansion projects compared to previous year.

WASTE CLASSIFICATION AND BREAKDOWN



Hazardous waste accounts for approximately 9% of IVL's total waste and this has been decreased, an additional 1% reduction from 2011. Hazardous waste that is generated in IVL's facilities is mostly managed by external companies that specialize in hazardous waste management.



QUESTION:

DOES PET USE UP SCARCE OIL RESOURCES?

No, as most (88%) of the oil extracted from the earth is used as fuel for transport systems, heating appliances or for the generation of electricity. The amount used for chemicals and plastics is small in comparison (<6%). PET uses less than 0.15% of the world's oil resources.⁵

⁵ http://www.cpme-pet.org

NON-HAZARDOUS WASTE PRODUCTION

PERFORMANCE DATA	2010	2011	2012	GRI
Non-hazardous Waste Generated (tonnes)	27,590	103,933	120,572	EN22

(Non-hazardous waste can be defined as waste that does not pose an immediate threat to man or the environment.)



Increase the generation of non-hazardous waste by 16.01 %, from 103,933 tonnes in 2011 to 120,572 tonnes in 2012.



QUESTION:

CAN DRINKING FROM A PET WATER BOTTLE LEFT IN A HOT CAR OR STORED IN STRONG SUNLIGHT CAUSE CANCER?

No. Plastic bottles made from PET for bottled beverages, such as water, are safe to store in your car. The plastic used to make the bottles does not release cancer-causing chemicals when exposed to heat. This rumor falsely claims that dioxins—a group of toxic chemicals associated with an array of health problems, including breast cancer—leach from the heated plastic into the water.

PET does not contain dioxins, and the sun's rays are not strong enough to create them. The reason that plastic bottles are advised to be kept out of direct sunlight is because the bottles do not contain ultraviolet (UV) stabilizers, the additives preventing the effects of UV light. When plastic is exposed to sunlight over time, it may become weakened and develop leaks.²

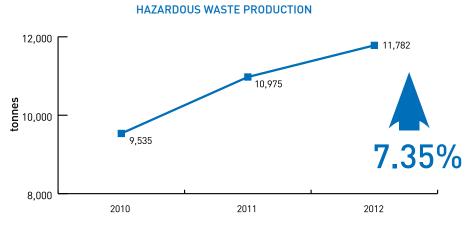
Most single-use beverage bottles today are made from polyethylene terephthalate (PET). PET is tested extensively for safety. There is some evidence that heat older (non-PET) types of plastics can cause bisphenol A (BPA), that's been shown to have estrogenic effects in animal studies, to leach from into the water (the "estrogenic effects" are thought to impact cancer risk). However, PET single-use water bottles are made from BPA-free plastic and there has been no proven link to breast cancer. To be safe, drink from a reusable plastic bottle labeled "BPA free," or choose water bottles with a "1," "2," "4," or "5" in the recycling symbol on the bottom.



HAZARDOUS WASTE PRODUCTION

PERFORMANCE DATA	2010	2011	2012	GRI
Hazardous Waste Generated (tonnes)	9,535	10,975	11,782	EN22

(Hazardous waste refers to any waste that presents a present or future threat to humans or the environment, i.e. it is explosive, flammable, oxidizing, poisonous/ infectious, radioactive, corrosive and/ or toxic/ ecotoxic)

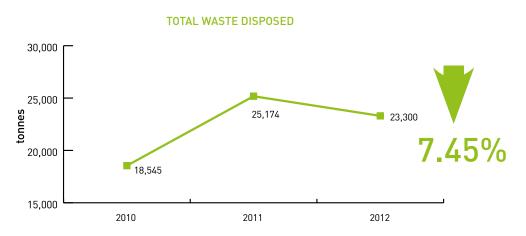


Hazardous waste production was increased by 7.35%, from 10,975 tonnes in 2011 to 11,782 tonnes in 2012.

WASTE DISPOSED

PERFORMANCE DATA	2010	2011	2012	GRI
Total Waste Disposed* (tonnes)	18,545	25,174	23,300	EN22

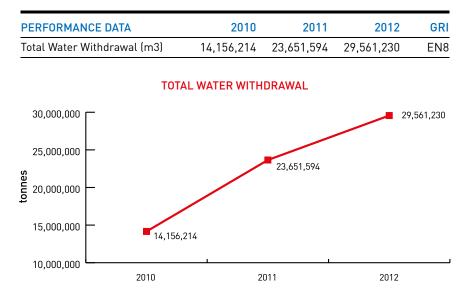
(*non-hazardous waste + hazardous waste)



To keep waste under control, the amount of total waste disposed is the key. The amount of waste disposal at year end 2012 was 23,300 tonnes, a decrease of 1,874 tonnes or 7.45 % from 2011.

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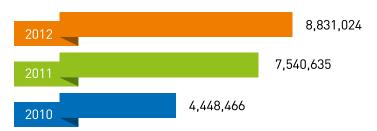
WATER SAVINGS



During the reporting period, total water consumption increased from 23,651,594 m3 in 2011 to 29,561,230 m3 or an increase of its total water withdrawal by 24.99%. Water is drawn from local sources, from surface water, groundwater and waste water provided by other organizations, none of which is designated a protected area or recognized as sensitive to the local ecology.

ENERGY CONSUMPTION

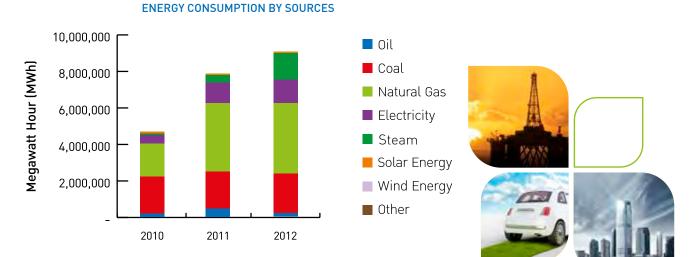
PERFORMANCE DATA	2010	2011	2012	GRI
Total Energy Consumption (MWh)	4,448,466	7,540,635	8,831,024	EN3



TOTAL ENERGY CONSUMPTION (MWH)



IVL's total energy consumption in 2012 was 8,831,024 MWh, increased by 17.11 % compared to 2011. This is due to an increased number of operations. We are engaged in ongoing efforts to improve the efficiency of operations at our facilities worldwide.



The above chart shows energy consumption broken down by energy sources. In 2012, the use of all energy sources decreased. Around 3,712,512 MWh or 42% of energy consumed is from natural gas, with 2,121,328 MWh or 24% from coal and 1,456,696 MWh or 16% from steam.



QUESTION:

IS IT TRUE THAT THE TRIANGULAR MARK ON PLASTIC PACKAGING GRADES THE TOXICITY OF PLASTICS?



No. There are six broad families of plastics and each of these has a number which is printed or embossed in the triangle to allow recyclers easily to identify the grade of plastics for recycling. The symbols have nothing to do with toxicity.

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PILLAR 3: REUSING RESOURCES





THE IMPORTANCE OF REUSING RESOURCES

Indorama Ventures strives to use resources effectively and reduce waste output by reusing and recycling. By reusing, we make less waste, reduce the amount of new resources that will be used including energy, and reduce landfill. IVL continues to increase the level of reuse and focuses on reusing materials whenever possible.

As water is a limited resource we do aim to reduce water use and each plant strives to maximize water recycling for reuse. We have onsite facilities to treat waste water and reuse water in various internal manufacturing processes. Similarly, in our offices, reuse of paper is encouraged. We have made great effort to reduce paper use through a variety of initiatives including using doublesided printing, reusing envelopes internally and reusing used paper for taking notes. Outside the office, we also minimize packaging waste by reusing cardboard boxes and packaging materials, including wraps, pallets, racks and bulk containers. We also collect and return toner cartridges to manufacturers for reuse. We strongly encourage the re-use of industrial by-products as raw materials in the production processes as this not only lowers waste but can save on our costs too.

Donations are one way to reuse unwanted items, helping to reduce the environmental impact and the amount of materials that is send to landfills.IVL actively protects the environment by donating unwanted items for reuse, such as electronic equipment and paper.

PERFORMANCE ON REUSING RESOURCES EXTENDS TO ALL OUR BUSINESSES

All our companies make an effort to reuse resources. FiberVisions China reuses single-side printed paper; reuses fiber bale wraps internally to reduce consumption of new bale wraps, reuses ropes from polymer super-sacks for waste packaging and reuses pallets from polymer for nonwoven delivery. FiberVisions Covington reuses bale wraps, pallets and empty drums. FiberVisions Athens sends fiber waste for re-palletizing and reuse in the process.

Indorama Ventures Mexico classifies general waste according to procedure PAQ-06 for external recycling as much as possible and treats wastewater and reuses/ recycles for minimizing use of new water.

Indorama Holdings prints on both sides of the paper; it also donates unwanted computers to poor schools to enhance their education experience as part of our normal CSR activities.

TPT Petrochemicals treats water by sending it to a Waste Water Reclamation Unit (RO Plant) to be de-mineralized. It sends Pd/C catalyst to the vendor for recycling back into fresh catalyst. Indorama Petrochem has reused empty HBR IBCs for the disposed of CTA residue since 2010. SUSTAINABILITY REPORT 2012

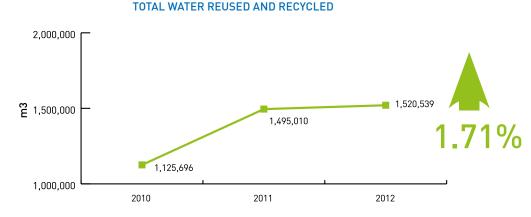


Indorama Ventures (Oxide & Glycols) recycles paper and changes the catalyst to reclaim the silver (97% recovery). Auriga Polymers recycles plastics via an extruder to its CPS1 and CPS2 lines. Wellman International recycles over 65,000 tonnes of post-consumer based PET, which equated to approximately 2.2 billion PET bottles in 2012. This represents an annual saving of 200,000 barrels of oil and the elimination of 300,000 tonnes of harmful air emissions; it recycled 3,926 tonnes of polyester fiber waste from the production process on-site.

Indorama Rotterdam maximized recovery of Co/Mn in the PTA process. PT. Indorama Polyester Industries Indonesia reuses corrugated carton for packaging and reuses plastic to wrap waste products. PT. Indorama Ventures Indonesia reuses cones and Styrofoam and reuses water from the waste water treatment process. Headquarters donated old calendars that were collected from employees for the Foundation for the Blind in Thailand. The calendars will be reused and converted to Braille notebooks by the Foundation. AsiaPet/IRP used water from treated waste water in gardening, repaired and recycled wooden pallets ~ 2,400 pieces per year; reused FIBC jumbo bags for packing ~ 2,400 pieces per year. AlphaPet reuses super sacks and bags for polymer waste.

OUR PROGRESS IN REUSING RESOURCES WATER REUSE AND RECYCLING

PERFORMANCE DATA	2010	2011	2012	GRI
Total Water Reused and Recycled (m3)	1,125,696	1,495,010	1,520,539	EN10



In 2012, 1,520,539 cubic meters of recycled water was used, which met about 4.87% of the total water demand. Some factories have closed loop chilled water systems in its process, giving a significant savings.





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PILLAR 4: RENEWABLE ENERGY



THE IMPORTANCE OF RENEWABLE ENERGY

Long-term investment in alternative energies is becoming more and more urgent globally. IVL is aware of the opportunities in this area. The use of renewable energy is a part of our sustainability efforts and is being expanded to plants around the world. This is because, as part of our Company's energy policies, we take steps to reduce the impact of carbon-based fuels on the environment and ensure the sustainable development of our business. IVL will contribute positively to the local community by using green and sustainable energy and continues to invest in renewable energy projects. As such, our investments are focusing on wind and solar energy projects in many locations.

HOW FAR WE HAVE COME

More of our facilities are beginning to implement renewable energy projects on the own initiative as the technology becomes more widely used and the cost comes down. Early movers like these four subsidiaries of IVL will be a source of inspiration for other commercial enterprises in the future. Moreover, we are saving electricity made from fossil fuels to ensure the future of both the Company and the world remains bright.

RENEWABLE ENERGY – MORE INVESTMENT FOR LONGER SUSTAINABILITY

Indorama Polyester Industries Rayong has initiated a renewable energy project to use heat conduction from exhaust air of the hot oil boiler to the heating air inlet, which is expected to reduce natural gas use by 44,820 MMBTU annually. Trevira has installed a 4.5 MW photovoltaic system.

Indorama Holdings installed 2,376 MW solar modules in September 2012 and 141 kW solar modules in December 2012 for generating green renewable energy. The expected average power generation is 3,500,000 KWH per year and 240,000 KWH per year respectively. Orion Global Pet has installed 30 kW solar panels and a 2.5 kW wind generator for office lighting. Indorama Polymers Workington has had three wind turbines in place since acquired in 2008.



PILLAR 5: EMPLOYEE DEVELOPMENT





THE IMPORTANCE OF DEVELOPING EMPLOYEES

In today's economy, organizations have to function in contexts that are highly unpredictable and characterized by range of complex issues like global expansion, shifting demographics, economic volatility and ongoing competitive pressure. As the global business landscape continues to evolve, these complexities create a virtually constant set of challenges and opportunities for growth and learning.

To capitalize on these challenges and opportunities, there is a compelling need to leverage human assets. Organization need to do this by building and combining their capabilities in four areas—defining, discovering, developing and deploying talent. While many of these capabilities are required for developing both global and local leaders, long term sustainability demands global roles. When these capabilities come together and are aligned with business needs, an organization is in a position to multiply their talent and is poised for sustainable long-term competitive advantage.

MR. SANJEEV BHATIA HEAD OF GLOBAL HUMAN RESOURCES

DETAILS OF OUR PERFORMANCE ON EMPLOYEE DEVELOPMENT



Breast cancer training provided awareness to expat spouses, Thai staff and local community people who joined the program.





The newest Lean Six Sigma Green Belts and Yellow Belts at FiberVisions' Athens, Covington, and Duluth, Georgia facilities in the United States. These individuals received extensive training over a period of several months to learn new skills they will apply to improving our operations.

Staff from Indorama Polyester Industries Nakhon Pathom participated in the ICQCC in 2012 in Indonesia.



IVL believes in continuous training, for both work-related and personal development. Such courses are conducted globally. Some examples of both work-related and personal development include at FiberVisions, the company held a "FiberVisions Operational Excellence" (FOX) meeting at Covington, Georgia and a site-wide quality training program at Athens, Georgia. The company's Suzhou Global Safety Meeting was held successfully in Suzhou Plant from March 5 – March 7. Auriga Polymers Operations personnel also visited FiberVisions' Covington and Athens Georgia plants to share and exchange ideas on improving plant operations.

At our Thailand Head Office, we organized Cardiopulmonary Resuscitation (CPR) Training to teach first aid, relieve pain and reduce the likelihood of death from a strokes or heart attacks as well as courses on Strategic Planning, Managing to High Performance, Cross Functional Communications and a short course on Business English Training (Intermediate Level) helped improve business English skills (Listen, Speaking, Reading and Writing) among Thai staff. To assist employees with personal finance, a representative of Krung Thai Asset Management came to educate employees about how to save money and reduce tax. A training and development program for internal instructors was held at Indorama Ventures Polymers Mexico. To promote safety, fire drill training was held and firefighting practice was provided at the fire Brigade's School in Celaya, Guanajuato.

In Ireland, Wellman International held evacuation and First aid training was provided to all employees and similarly, China's Guangdong IVL PET Polymer held training on first aid, fire drill and quality management systems. PT. Indorama Ventures Indonesia also conducted a safety training program for its head office employees.

The service quality (QCC) Team represented by Indorama Polyester Industries Nakhon Pathom, gave a QCC presentation at the 26th QCC Festival on 23-25 April 2012. The Utility Team presented on April 23, 2012 and Sen Dai Kao Klai presented on April 25, 2012 at the Conference Room, 6th Floor, Industrial Promotion Building, Ministry of Industry. Staff also participated in Bangkok International Quality Symposium.

SUMMARY ON PROGRESS OF EMPLOYEE DEVELOPMENT

Employees are the most important business asset of IVL. Investment in them is done thoughtfully and strategically to reap rewards that will pay off in the future. The focused development efforts which have been accomplished in 2012 fall under the two categories, behavioral and functional training.

1.1 TRAINING (IN-HOUSE AND EXTERNAL TRAINING)

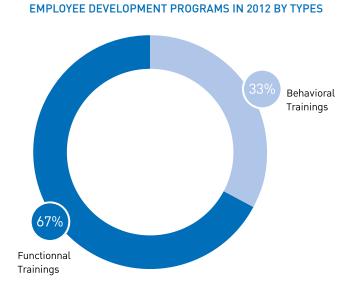
BEHAVIORAL TRAINING	FUNCTIONAL TRAINING		
 A. LEADERSHIP Quiet Leadership Foundation for a Great Life, Great Leadership and Great Company CFO Leadership Forum: Changing Role of the CFO – Integrating Finance and Strategy 	 A. FINANCE Cash Flow Management Financial Reporting and Accounting Standard Practice Techniques for Financial Information Planning Social Accountability System IFRS 		
 B. PERSONAL GROWTH AND WELLNESS Breath and Meditation – Stress free performance Positive Thinking and Proactive Working Business and Constructive Relation at Work 	 B. SALES AND MARKETING Focused Sales Growth Advance Presentation Skills C. QUALITY Six Sigma – Yellow and Green Belt Environmental and Process Safety 		



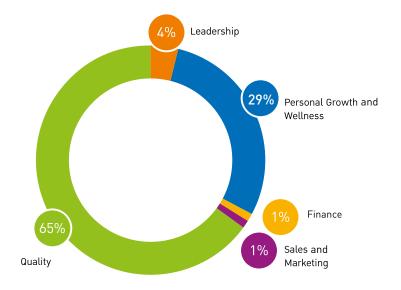
1.2 EXECUTIVE MENTORING

A. For apex level executives of IVL

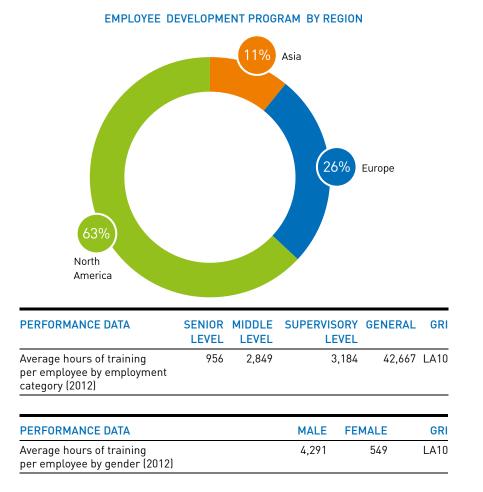
1.3 SPONSORING FOR HIGHER QUALIFICATION PROGRAM



EMPLOYEE DEVELOPMENT IN 2012 BY CATEGORIES







WHAT IVL IS AIMING TO ACHIEVE IN 2013

The focus of IVL is shifting on developing and retaining their current and future leaders and aligning development objectives with larger organizational strategy. Organizational development is more linked with business necessity.

In 2013, the key focus areas for employee development are:

- Driven by, and fundamental to, the success of IVL's business processes, not just employee development goals.
- To include managers in the business units as teaching agents who will mentor, train and coach employees.
- To develop local talent to ensure a seat at the senior leadership table.
- To prepare employees to be comfortable with increased ambiguity and change in IVL and a constantly shifting set of organizational priorities.
- To think globally because global issues facing IVL will only increase in the future.

- To create and build a culture of innovation and engagement.
- To emphasize the development of employees' interpersonal skills, analytical skills, problem solving skills, systems thinking, resilience and innovation thinking.
- To equip employees to become our brand ambassadors and hence participate in image building.

The confidence of the top management of IVL will ensure the success of employee development and hence the organization's development.





THE IMPORTANCE OF ENGAGING STAKEHOLDERS

IVL engages a diverse range of stakeholders to establish excellent lines of communications and maintain constructive relationships between the Company and its stakeholders. Our stakeholders are both internal and external, such as customers, suppliers, employees, shareholders, bondholders, investors, local communities, government, regulatory, authorities, universities or academia and the media. The Company defines stakeholders as any individual or group that stands to gain or lose economically, socially or environmentally through the actions of the Company. We have tailored our engagement processes using different communications methods to suit each different stakeholder group.

SHAREHOLDERS, BONDHOLDERS AND INVESTORS

IVL has over 36,798 registered shareholders. These include retail shareholders as well as institutional investors, such as pension funds and banks. All shareholders are encouraged to attend the Annual General Meeting, at which the Board presents the Company's performance and strategy to shareholders. Shareholders have the opportunity to ask questions, share their opinion and vote on certain issues. We also set-up a miniexhibition at the meeting to provide knowledge of IVL's businesses and products. Shareholder feedback and concerns are addressed promptly by our executives and Investor Relations Department. After the meeting, we make our webcast, speeches and presentations from the AGM available on our website. To create better relations and deepen the understanding of IVL's businesses and activities, the Company organizes visits by shareholders to our plants every year. In 2012, IVL organized two shareholder visits to our factories in Rayong and one analyst visit to our Lopburi plant. Shareholders have a chance to meet and listen to presentations directly from IVL's senior executives.

We have strong relationships with the general investor community and investment analysts. We meet with investors regularly through events, conferences and one-to-one meetings. IVL also holds conference calls or analyst meetings for quarterly earnings results after they are publicly disclosed and meet shareholders on a quarterly basis on Opportunity Day, hosted by the SET.

The annual report is the main reporting document we use to communicate with shareholders following the end of each financial year. We make the annual report available in both print, CD-ROM and on-line versions posted on our website.

In 2012, IVL held a seminar to provide knowledge and basic understanding about our business to the investment and financial community. Topics included the history of IVL, basic understanding of petrochemicals in relation to IVL's businesses: PTA, PET, Polyester and Wool, key financial information and IVL's strategy. As part of our Investor Relations program, IVL participates in both domestic and international non-deal roadshows to present operational and financial results to investors.

Įnd Qrama

Shareholder and investor questions are received by the Investor Relations Department and the most frequent concerns are answered and posted to the Company website in the form of an FAQ. Information about the Company, reports, announcement, press release, event calendar and presentations are provided on our website (www.indoramaventures.com).

CUSTOMERS

Engagement with our customers is the key to the success of the Company. For this reason, we have applied a customer treatment policy to maintain the highest levels of customer services. IVL aids customers to improve sustainability by using our innovative products and solutions, including post-consumer recycled (PCR) fiber, Future PET and Trevira CS.

The Company has the privilege of supporting customers to meet their sustainability goals as we understand that their sustainability is our own. IVL has worked with Coca Cola to develop a resin containing bio MEG, a plant-based alternative to carbon-based raw materials. The invitation to help in the development of Coca Cola's PlantBottle was an indication of the trust and confidence we have earned. We continue our focus on building strong relationships with customers and use a variety of methods to communicate and listen to our customers.IVL deals with customer enquiries in a professional manner on a daily basis and maintains communication channels for constant customer feedback.

SUPPLIERS AND BUSINESS PARTNERS

Indorama Ventures believes in sourcing goods and services from suppliers and business partners who operate ethically. We thus evaluate potential suppliers and partners against a set of standards such as environmental, protection, ethical labor practices prior to doing business with them. This is a consistent approach to suppliers and business partners based on globalbased trading partner policy.

We are actively engaged in working with our suppliers to continuously improve our Environment, Health and Safety (EHS) performance by clearly stating our purchasing and credit policy to ensure our business standards are fully integrated. In all our operations, we aim to develop strong relationships with our suppliers and partners based on mutual respect, trust and understanding.

We work in close partnership with our suppliers to discover their needs and ensure their requirements are fully met. To achieve this, the Company communicates with suppliers and responds to their suggestions on a regular basis.

EMPLOYEES

We are dedicated to respecting human rights as embodied in the Universal Declaration of Human Rights and its two corresponding covenants, The International Covenant on Civil and Political Rights and The International Covenant on Economic, Social, and Cultural Rights.

QUESTION: DOES PLASTIC WATER BOTTLES HAVE A "SHELF-LIFE?"



No. In fact, the US Food and Drug Administration (FDA), which regulates bottled water as a packaged food product, has not established a shelf life for bottled water. Some large retailers though do require all food suppliers to carry a two-year expiration date for stock rotation proposes.⁵

⁵ http://www.foodsafetymagazine.com/magazine-archive1/aprilmay-2009/the-safety-of-beverages-in-plastic-bottles/



We treat all employees fairly and honestly, regardless of where they work. All staff have agreed employment terms and conditions in accordance with local law or practice and are given appropriate job skills training. We are committed to seeking continuous improvement and compliance and aim not only to abide by the non-discrimination laws in every country where we operate but also to exceed where possible current national and international legislation and relevant codes of practice in these countries. We will monitor our compliance with this policy and the requirements of relevant underpinning legislation as appropriate.

We ensure that working hours are not be excessive, complying with industry guidelines and national standards. We pay a fair wage reflecting local markets and conditions and always meet any national minimum wage. We do not employ illegal child labor, forced or bonded labor, forced overtime or condone illegal child labor. No person under the age of 16 is employed by IVL. No young person is employed unless such employment is in compliance with all applicable laws and regulations concerning age, hours, compensation, health and safety. We have grievance procedures through which staff can raise personal and work-related issues. Any employee who feels that he or she has grounds for complaint in relation to bullying, discrimination, harassment or victimization has the right to pursue the complaint through our grievance procedures. Customers who feel they have grounds for complaint may pursue these through our operating company customer complaints procedures. We ensure our complaints/feedback procedures can be accessed and used by everyone.

PERFORMANCE DATA					GRI
Total Number of New Employee Hires (2012)				757	LA2
PERFORMANCE DATA	EUROPE	NORTH AMERICA	ASIA / PACIFIC	AFRICA	GRI
Percentage of new employee hire by region (2012)	8.58%	1.81%	83.16%	5.94%	LA2
PERFORMANCE DATA					GRI
Total Number of Employee Turnover (2012)				730	LA2
PERFORMANCE DATA	EUROPE	NORTH AMERICA	ASIA / PACIFIC	AFRICA	GRI
Percentage of employee turnover by region (2012)	11.98%	4.10%	83.73%	0.45%	LA2

REWARD AND RECOGNITION

At Indorama Ventures, we recognize outstanding achievement and reward excellence. Our reward structure is designed to promote high performance and assist in attracting, retaining and motivating the best people. The reward program includes professional development opportunities, salary increases, annual bonuses based on the achievement of the individual linked to IVL's overall performance targets.



GOOD WORKING CONDITIONS AND THE ENVIRONMENT

We are also committed to offering good working conditions and are responsible for the safety, health and well-being of our employees. We have invested in improving the health of our employees worldwide by offering a combination of health benefits, preventive and occupational health programs and an annual physical examination.

Moreover, we manage occupational safety and hygiene globally by providing regular training programs to help employees and contractors understand workplace policies and handle sensitive situations.

We respect the rights of our employees and all other stakeholders and do not discriminate against anyone based on their ideological views, race, color, religion, gender, sexual orientation, national origin, age, disability, or any status regarded as a human right. We have adopted reasonable and inclusive practices throughout our operations and will always seek to eradicate prejudice, discrimination, bullying and harassment.

PERFORMANCE DATA	2012	GRI
Number of reportable injuries	215	LA7
Average occupational injury rate (%)	3.71%	LA7
Number of reportable occupational diseases	1	LA7
Average occupational disease rate	0	LA7
Number of lost days	1,201.5 days	LA7
Average lost day rate (%)	19.12%	LA7
Average absentee rate (%)	2.1%	LA7

COMMUNICATIONS

As a company, we are totally committed to communicating with our people in ways that are open and transparent. We implement a variety of employee communication programs, from "town hall" meeting to surveys and informal communications and encourage communications with employees over changes in our operations (e.g. acquisitions, reorganizations and executive retirement). IVL implements various employee communications program, including a quarterly magazine, email newsletter and a monthly video to help employees around the world keep up-to-date with what is going on in the Company.

The Company and its subsidiaries also provide an orientation program for all new employees and development programs thereafter to develop and refresh their skills. Every year, we hold an Annual Global Conference to share professional knowledge and best practices within the Group. In 2012, our PET Global Conference was held in Poland with over 200 participants from our operations around the world.

INVOLVEMENT

We believe that every employee has a role to play in the Company and focus on developing a sense of responsibility, instilling pride in them so that they understand they are an important part of the company's success. We therefore encourage everyone to participate in the decision-making process and provide their input to improvement activities aligned with their level in the Company.



DIVERSITY

As a global company, we employed over 9,500 employees from different nationalities in 2012. The difference in cultures, backgrounds, skills and experience of our global employees drives creativity and creates strength in our business. We certainly value differences and foster a working environment that supports diversity. Each IVL employee is treated equally and has the power to make a difference. At all our global operations, we commit to hiring and developing local talent to create a sustainable competitive advantage in a global market.

PERFORMANCE DATA			MALE	FEMALE		GRI
Percentage of total employee by gender (2012)			76.23%	23	.77%	LA1
PERFORMANCE DATA	EUROPE	NORTH AMERICA	ASIA /	PACIFIC	AFRICA	GR
Percentage of total employee by region (2012)	23.90%	17.15%		58.34%	0.05%	LA
PERFORMANCE DATA		BELOW 30	30-50	ABOV	/E 50	GRI
Percentage of total employee by age group (2012)		21.14%	59.58%	19	.26%	LA1

FAIR REMUNERATION

To attract and retain the best talent, we provide a competitive package that is fairly linked to their performance. We also conduct an annual performance review to determine career advancement and salary adjustments for each employee. Our full-time employees are entitled to all the benefits prescribed by local law, but may include such items as life and or medical insurance; annual physical health checks; a retirement plan; long-term incentives; annual bonuses; maternity or paternity leave in some markets and scholarships for the children of employees.

COMMUNITIES

Community engagement is a key component of our commitment to corporate social responsibility. All our business units are proactively engaged with local communities where we have a business presence. Each operation continuously focuses on building strong relationships, identifying the social, environmental and health impact and developing a plan for communication with the community include handling their feedback and complaints.

We are committed to being transparent with stakeholders in local communities, actively supporting local communities with community programs. Many of our operations have garnered the interest of local communities and we offer corporate engagement by inviting community leaders to visit and receive education about our activities to be disseminated to others. We continue to provide help to disaster affected communities wherever we operate.

In 2012, we supported Lopburi communities that were affected by flooding in Thailand. We built a community kitchen, made a financial contribution and assisted in rebuilding efforts. Long-term relief within the affected areas included educating people in the community on how to make life jackets from PET bottles and how to maintain electrical equipment.

UNIVERSITIES / ACADEMIC

We believe that education sets the foundation for future success. As a part of our Corporate Social Responsibility, one of the key commitments is to support the education of a community. We welcome visits by students to learn more of our business and make a point to find time to assist them when they are writing a report for their graduate or undergraduate studies.



INTERNSHIP OPPORTUNITIES

IVL offers internship opportunities to university students to gain experience of working for a global company as well as helping students build both technical and soft skills. After finishing their internships at IVL, they might get a chance to continue working with the company in full-time positions.

ACADEMICS

IVL also contributes to research, lecturing and regularly hosting factory visits for students from leading academic institutions. Students have a great opportunity to see the production process and meet with professionals in every factory visited.

SCHOLARSHIP

IVL sponsors a scholarship program. The scholarship is directed at students who are economically disadvantaged. In addition, monetary donations are provided to selected school activities.

GOVERNMENT, REGULATORY AND AUTHORITIES

We are committed as a company with global subsidiaries to conducting our business according to the law and regulations as well as meeting standard business practice of countries around the world. Our businesses engage with government at both local and regional level. We believe in directness and transparency in government relations. We engage with regulators and government authorities through our public affairs team. Our public affairs team is responsible for maintaining positive relationships with government authorities and contributes to public policy and regulation. The team regularly meets with regulators to discuss general industry issues and sustainability-related issues including providing evidence to government inquiries and make sure the Company complies with regulation. We also work with key industry trade associations and are active members of a range of organizations, including as a member of World Economic Forum.

INDUSTRY AND INDUSTRY ASSOCIATIONS

The Company participates in relevant industry bodies and is an active member of a variety of business associations such as chambers of commerce. We also engage with a number of industry associations to share opinions and best practices within our industry and in order to address issues that can lead to constructive dialogue with authorities, local and national government bodies.

THE MEDIA

We are committed to being open and transparent with the media and disclose and distribute information on business performance and activities using various channels. For example, quarterly reporting, an annual report, fact sheets, a quarterly magazine, press release, email alerts, telephone and interviews. Our Corporate Communications Department interacts with the media and responds to media queries on a regular basis.

Each year, we arrange media tours to our factories both local and overseas. In 2012, we arranged exclusive CEO interviews with the media regarding industry trends, IVL's performance and key issues at that time. IVL hosted press conference to announce the operating results and the launch of the "RECO Young Designer Competition 2012".

We maintain long-term relationships by inviting journalists to a media lunches regularly so that we may get to know them better with a view to ensuring our messages are always being received by the media correctly. We build and maintain our own media database and regularly contact many of the leading editors and reporters where we have businesses. We are an active member of the Foreign Correspondents' Club. This allowed us to engage and network with both Thai and foreign media.



DETAILS OF OUR PERFORMANCE ON STAKEHOLDERS ENGAGEMENT

SHAREHOLDERS, BONDHOLDERS AND INVESTORS

In 2012, our communications and engagement with this financial group included the following activities:







Mr. Aloke Lohia, Group CEO spoke to retail investors at Bualuang Securities trade room on December 7, 2012.

IVL's Annual General Meeting on April 26 at Plaza Athenee Hotel, Bangkok. Many shareholders attended. The Board of Directors is shown here answering questions raised from the floor and informed shareholders of the company's direction in 2012.

The "Understanding the Basics of IVL" seminar was held at the Stock Exchange of Thailand in July 2012.

Indorama Ventures Bangkok Head Office, Indorama Petrochem, Indorama Polyester Industries Rayong and TPT Petrochemical collaborated in organizing IVL shareholders factory visits to our Rayong facilities in July and October 2012. This enables our shareholders to understand our business and is always scored very highly in our post-visit surveys. Moreover, IVL's executives always present the quarterly and annual financial results to analysts, investors and media at the Stock Exchange of Thailand building. Last year, we participated in the Kao Hoon Invest Fair in Chiang Mai in order to meet retail shareholders that rarely have the opportunity to see us in Bangkok. For institutional analysts, we took them to our Lopburi plants on December 11, 2012 so that they could view our operations following their recovery after heavy flooding in 2011 and give them an opportunity to discuss the business with top management on-site. IVL organized a presentation on November 20, 2012 to announce a new debenture issuance. We followed up with a factory visit in 2013.

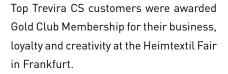
Indorama Polyester Industries (IPI) Annual General Meeting at 35th floor of our Head Office. IPI has shareholders even though it is not traded on the SET board.



CUSTOMERS

Customer engagement activities throughout the year included the following activities.







In October staff from the PepsiCo team visited our new site for packaging at Rayong.



Auriga Polymers was a silver sponsor of the Coca-Cola Scholars Foundation. The 24th Annual Celebration banquet was held on April 12, 2012 in Atlanta Georgia where actor Morgan Freeman was a special guest.

FiberVisions is very advanced in using Lean Six Sigma techniques and last year worked collaboratively with customers to reduce web defects by 50% by using these techniques.

SUPPLIERS AND BUSINESS PARTNERS

Some supplier and business partners engagement activities carried out in 2012 included the following activities.

Head Office executives assisted our MEG supplier, Sabic, by providing information to be used in their sustainability report. FiberVisions a/s in Denmark meanwhile was presented with an award as 3M's top supplier for 2011.

EMPLOYEES

In 2012, we developed various activities in order to actively engage our employees globally.



Mr. Carlos Sierra, General Director, leads a Town Hall Meeting in Indorama Ventures Mexico, to review the company's performance and other relevant factors.



Global PET Conference at Warsaw, Poland, on September 4-6, 2012.



Employees of Orion Global Pet in Lithuania participated at the Summer Festival 2012.



The Company holds great respect for its employees, their various cultures and religions and welcomes the diversity of the Indorama Ventures family. For these reasons, we hold activities that benefit the health and safety of employees as well as take the opportunity to talk to them in formal and informal settings. IVL's Bangkok Head Office for instance organized a Thai New Year Celebration, known as Songkran in April. This traditional celebration is held dear by all Thais and celebrations are held at all of IVL's sites in Thailand. To further team building and team spirit, Head Office an annual IVL Team Building exercise on the coast at Petchaburi and a bowling competition attended by all senior management and employees.

An Annual Service Award Ceremony 2011 was organized on February 22, 2012 at the CTE Banquet Hall of Indorama Holdings. Eight employees completed 10 years of continuous service with Indorama Holdings, which in itself is a celebration of the loyalty the company has engendered over the years. Indorama Holdings also celebrated the Songkran Festival at the campus with a South Asian Puja Ceremony, with pouring of water on the hands of Buddhist monks and senior staff, free food and relationship-building games and awards. Every year, the company holds an annual heath check for employees.

Not only does the Company encourage employee welfare but also assists their children with scholarships. Indorama Holdings and its sister company, AsiaPet, organized a Scholarship Distribution Ceremony in 2012 for children of employees at the Banquet Hall, CTE Building.

Indorama Ventures Polymers Mexico's employees were recognized for their performance and the implementation of new ideas as the company encourages innovation, especially when it comes from their own people. The Queretaro site in Mexico promoted sports for employee work-life balance in August 2012, organizing a football tournament for staff and the Union. As a preventive action, they also organized a conference about ergonomics and recognized the effort and commitment to safety practices of all personnel in the Chemical Laboratory area, which takes them to 20 years with no recordable injuries.

Honoring those who had contributed over the years, Indorama Ventures Polymers Mexico held a retirement ceremony in recognition of retiring employees. On this occasion, the employee's wife was invited to join the event. Erasmo Machuca, an employee who applied for the early retirement program, accompanied by his wife and Indorama Ventures Mexico executives was given a farewell dinner.

PT. Indorama Ventures Indonesia requested Mayapada Hospital staff conduct health socialization, specifically concerning Hi Potency and Cholesterol for employees. Further on health and safety, the company organized a Zero Accident project to create safety awareness at the factory.

Indorama Polyester Industries at Nakhon Pathom provided an annual health check for all employees to ensure they have access to medical benefits. The company also celebrated its 14th anniversary and give awards to employees who worked for 10, 15 and 20 years. At Indorama Polyester Industries in Rayong, staff donated money to help colleagues whose houses had burned down in one tragic incident.

We believe in encouraging our employees to achieve new levels of excellence and 2012 saw FiberVisions Denmark receive the 2012 FOX (FiberVisions Operational Excellence) site award at FiberVisions FOX Conference in Athens, Georgia.

Our Trevira management in Germany met with employees in Bobingen and Guben for discussions in 2012. Thomas Rademacher, Plant Director also spoke to employees on the start-up of the first three air-texturing machines moved from Trevira's Polish site to Guben.

Auriga Polymers in the USA provided flu shots for employees as part of their wellness program and later hosted a Christmas lunch for Spartanburg and Charlotte employees.

COMMUNITIES



Indorama Ventures has operations worldwide and this means we have neighboring communities worldwide. Our sustainability partly rests with their happiness and contentment with our operations, thus we take great care to minimize our impact on their lives. These are some of the activities we carried out in 2012 to ensure that local communities are respected, consulted and assisted by our global plant employees. TPT Rayong (pictured) presented its Environmental Impact Assessment (EIA) report to local communities to assure them of our efforts to ensure their wellbeing by minimizing our impact on the surrounding environment.

Indorama Petrochem joined a kick-off meeting with Banchang Sub-district Mayor, other plants in the area and representatives from local communities to discuss development action to establish an emergency response plan for communities as initiated by the Rayong governor. Also in Rayong, Indorama Polyester Industries Rayong participated in the opening of a new school building at Baan Map Tha Phut School.

In Lopburi, AsiaPet's employees participated in a football competition to maintain the relationship between the company and community while in Lithuania representatives from Orion Global Pet met with the local community to celebrate Independence Day.

UNIVERSITIES / ACADEMICS



IVL welcomed students from CFA Institute. The visit is part of the 4th CFA Institute Research Challenge in Thailand.



"Future Day" at Trevira: Girls and boys from local schools learn about job prospects at Trevira in Guben.



PT. Indorama Ventures Indonesia welcomed two students from Gajah Mada University for an internship program from February 16 – March 15, 2012.

Indorama Ventures believes that education is one key to success for young people and welcomes visits from schools and universities so that we can explain what we do and perhaps identify future leaders in our business. We were therefore pleased to welcome students from the Indian School of Business (ISB) to our head office in 2012. ISB is an internationally top-ranked institution that provides an MBA level post graduate program in management. Also in Thailand, the Pan Asia International School visited AsiaPet in Lopburi to learn how a world class.

In Lithuania, Students and teachers from Palanga School visited the Orion Global Pet Plant and students studying international business at LCC University, USA, began their summer tour of global companies with a visit. The plant also welcomed students from the Academy of Talented Students for their factory visit.

In Ireland, Wellman International gave a presentation to a local school on the environmental sustainability of fiber and processes while in the Netherlands students studying maintenance and process techniques visited Indorama Holdings Rotterdam.

In Mexico, students from the Queretaro University visited the Queretaro Site and students from the Technological Institute visited the site to learn about the PET resin process.

Auriga Polymers in the USA hosted Wofford College students of Organic Chemistry who toured the plant and met professionals in their field at the site. Auriga also had one intern, Andrew Chan from Cornell University, who completed a month at the plant.

GOVERNMENT, REGULATORY AND OTHER AUTHORITIES

We recognize that Indorama Ventures is a public entity and that we want to create and maintain a great brand image and reputation. We therefore believe in close relationships with local and national governments and authorities inasmuch as we work hard to ensure we are in compliance with regulations, laws and other rules that apply to companies in each region. Good relations assist us in ensuring that we know of and contribute to the development of the industry in harmony with local norms. We also like to ensure that there is some exchange of cultural knowledge, as exemplified by Indorama Ventures Polymers Mexico, the management of which participated in the Thai mission's H.M. Queen Sirikit's Birthday Celebrations at the Royal Thai Embassy in Mexico in August 2012. In



Representatives of Indorama Ventures Polymers Mexico and representatives of Industrial Chamber of Commerce met Mr. Jose Calzada governor of Queretaro, Mexico.

PT. Indorama Ventures Indonesia welcomed government officers on an inspection visit to assess compliance with laws and regulations.

Orion Global Pet was visited by H.E. Ambassador of India, Her Excellency Monika Kapil Mohta.

December, Anand Agarwal, CFO of Indorama Ventures Mexico, Mr. Chirachai Punkrasin, Ambassador of Thailand in Mexico, and his wife celebrated the 85th Birthday Anniversary of H.M. King Bhumibol Adulyadej. Our Mexico executives had also joined the farewell party of the previous ambassador of Thailand in Mexico. Indorama Ventures Mexico also organized workshops for State Security Week to strengthen relations with the Ministry of Health and Labor.

As our investment in China holds much importance for the future growth of the company, we regard it as very important for local government there to understand how much we emphasis quality of work and care for the environment and employees. We were therefore pleased to welcome Mr. Zou Jiajun and his team from Jiangmen Local Government in China who visited IVL's Head Office and its Indorama Petrochem factory in Rayong. Indorama Petrochem also participated in a mini-exhibition in support of Rayong Province's project "Public Service for Happy Communities".

TPT Petrochemicals and the Industrial Estates Authority of Thailand in Rayong performed a Buddhist religious ceremony to make merit together by offering food to monks.

The PET Group and Indorama Holdings Lopburi employees participated in National Labor Day 2012 activities held by the Department of Labor Protection and Welfare of Lopburi, part of the Ministry of Labor and later in the year arranged Mother's Day Celebrations in cooperation with Tha Khlong municipal district.

Following a plant tradition in Poland, Mr. O.P. Mishra visited the Mayor of Wloclawek city, Poland, on Christmas Eve to express gratitude for his support and cooperation and to ensure that there was always a free flow of communications between our management and the mayor's office.

INDUSTRY AND INDUSTRY ASSOCIATIONS



Mr. Aloke Lohia joined the Thailand – India Business Forum, organized by the Thailand Board of Investment in India. The objective was for Thailand to enhance economic relations with India, which presents numerous opportunities for investors and enhances the potential of new markets.



IVL joined the Plastic Night Gala Dinner 2012 hosted by the Federation of Thai Industries.



Mr. Aloke Lohia was nominated for the CNBC's 11th Asia Business Leader Awards (ALBA) on November 16, 2012.

THE MEDIA



Mr. Aloke Lohia's interview on CNBC.



Mr. Aloke Lohia interviewed with Thai and Indonesian media in Indonesia during the visit on February 1, 2012.



Thai media visited IVL Wloclawek Plant in Poland on September 7, 2012.

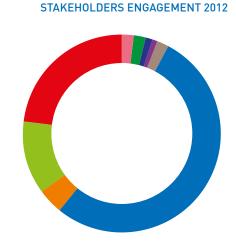
The mass media can assist the Company's efforts to communicate with stakeholders. For this reason, we make every effort to ensure that the media is kept informed and that our communications channels are always open. Sometimes, executives are requested to participate in seminars with the media, for instance when Group CEO and Director, Mr. Aloke Lohia, was a guest speaker at the Foreign Correspondent Club of Thailand (FCCT) to discuss business. He also spoke with Thailand's Tatler magazine, which wanted to understand h the leader of a large organization like IVL lives his life. CSR Committee Chairperson, Mrs. Suchitra Lohia also joined the Foreign Correspondent Club of Thailand (FCCT) event "Thailand Challenges after the flood" to review how companies reacted to the flood disaster of 2011.

Besides this interaction, we believe in maintaining good relations with local journalists, who we meet throughout the year. When a famous newspaper like the Bangkok Post celebrated its 66th anniversary, our executives were among those congratulating them on reaching such a milestone. Head of Corporate Communications Richard Jones also spends time every year visiting the offices of each business newspaper to wish them a happy new year and inquire about the Company's effectiveness in communicating with them.



SUMMARY ON PROGRESS OF STAKEHOLDERS ENGAGEMENT

THE FOLLOWING IS A SUMMARY OF OUR ENGAGEMENT WITH KEY STAKEHOLDERS IN 2012.



- 2% Industry/Industry Association
- 2% Media
- 1% Shareholders, Bondholders and Investors
- 1% Customers
- 2% Suppliers and Business Partners
- 53% Employees
- 4% Communities
- 12% Universities/Academic
- 23% Government, Regulatory, Authorities

PILLAR 7: LOCAL COMMUNITY DEVELOPMENT



THE IMPORTANCE OF DEVELOPING LOCAL COMMUNITIES

Developing our communities is one way to demonstrate our commitment as a good corporate citizen. As a part of the larger community, Indorama Ventures is committed to strengthening local communities and creating a positive and lasting impact where we operate throughout the world. Activities are carried out by units close to the community and our community development efforts include corporate philanthropy, employee giving and volunteer programs, arts and cultural programs and sponsorship and community health and wellbeing programs. We are aware of the needs of indigenous peoples and have taken care not to have any impact on them and to respect their rights. Our business has through this careful diligence avoided all incidents that would impinge on the rights of these indigenous peoples and communities.

PHILANTHROPIC GIVING

IVL supports and makes charitable contributions that address local needs and are based on the priorities of the communities where we have a business presence. Each year, we contribute to a wide range of charitable programs and events, including financial support and product donations to make a difference in people's lives.

ARTS AND CULTURAL PROGRAMS AND SPONSORSHIPS

We believe that arts and culture are fundamental elements of society. Art creates a more connected community and plays key roles in community development. Thus, IVL provides support to a wide range of arts and cultural events, performances, concerts and visual attractions.

ENVIRONMENT

Indorama Ventures recognizes that our business has an impact on the environment through our operations, offices and other activities. Our environmental policy and practices are structured to reflect our commitment to be at the forefront of environmental sustainability.

We also aim to improve and maintain our environmental practices to the highest standards and ensure that we comply with, and where possible, exceed applicable environmental legislation and regulations, working with our partners to promote environmental care, increase understanding of environmental issues and disseminate good practice.



We always actively promote PET and Polyester Fibers and Yarns re-use and recycling to the local community as part of our efforts to conserve the environment and enthusiastically seek ways to reduce consumption of resources and waste at every opportunity to improve environmental performance, offering products with lower environmental impact through innovative improvements and recycling. Through our environmental programs, we aim to involve every employee in our environmental agenda and promote environmental awareness across our businesses.

EDUCATION

We believe that education is critical to the success of communities and encourage educational activities, supporting education programs at all levels.

EMPLOYEE VOLUNTEER PROGRAMS

We offer our employees opportunities and encourage them to get involved as volunteers. All employees around the world are willing to contribute their time and expertise to numerous community-based initiatives. These initiatives not only benefit the communities, but also to develop our people to be leaders in social responsibility.

COMMUNITIES HEALTH AND WELLBEING

More than ever, the health and well-being of the communities is important to us. IVL support and promote programs that encourage both physical and social well-being of our communities. Our health and wellbeing programs range from direct financial support to provide education. We also support organizations that work to make communities better place to live.

DETAILS OF OUR PERFORMANCE ON DEVELOPING LOCAL COMMUNITIES

PHILANTHROPIC GIVING



"The Wellman Warriors" a team from Wellman International participated in boat racing aims to raise money to help local charities.



Auriga Polymers joined the 2012 March of Dimes Walk for Babies in the U.S.A., which saw 63 participants walk 5 km to raise awareness and collected over \$500 for research to prevent birth defects.



Indorama Polyester Industries Rayong provided funds to teach how to weave plastic baskets from post-consumer plastic waste to supplement income for local women's groups and create good relations with the community.



Everywhere around the world there are people who sometimes need a helping hand from large corporations like Indorama Ventures and we need to understand that our assistance can sometimes make a difference. As we have operations on a global basis, our activities with local communities and authorities trying to assist the needy varies in type and extent but always reflects the heart of our employees.

In the United States, Auriga Polymers employees in 2012 donated 5,692 cans of food to charitable organizations as well as a bale of fiber to the Pioneer Ladies Group who created heart-shaped pillows to comfort heart patients and ease their pain. Auriga Polymers employees also pledged over \$50,000 to the United Way, a non-profit organization that distributes donations to local charities. AlphaPet in Alabama donated two bikes and two helmets, one each for a boy and girl Pedaling for Christmas Cheer. FiberVisions Athens meanwhile raised awareness, and money, for The March of Dimes, which benefits local people with physical challenges.

Across the border in Mexico, our subsidiary Indorama Ventures Polymers Mexico donated used yet usable electronic devices to Colegio De Bachilleres Del Estado De Queretaro.

Back in Thailand, Indorama Ventures Head Office in Bangkok donated 10 wheelchairs to the Thais with Disabilities Foundation to support impoverished and disabled children. In Rayong, on Thailand's East Coast, Indorama Polyester Industries Rayong donated money to support the Islamic Community in Rayong, to Baan Map Ta Phut School in order to build a new building and to the Chinese Deity Parade Ceremony 2012 at Wat So Phon Community. At Wat Huay Pong School they donated stationery and sports equipment for children.

Indorama Petrochem sponsored the Songkran Festival organized by the Industrial Estates Authority (IEAT) with local communities in Map Ta Phut and Banchang Sub-district. TPT Petrochemicals sponsored Huay Pong Police Station's Charity Bowling Event and the Loy Krathong Activity organized by eight communities at Wat Map Ta Phut, a local temple.

Our plants in Lopburi sponsored a "save water" project and donated stationery and sports equipment to three local schools. The company also supported the Chak Pra Festival by providing cold drinks and also donated candles to three temples in Lopburi for Buddhist Lent.

PT. Indorama Ventures Indonesia donated to the Eid Al-Fitr celebration in Cihuni Village and, together with the Cihuni area committee, commemorated Islamic New Year's Day by donating over a million Rupiah to orphanages and poor, elderly people in the area.

In the UK, Indorama Polymers Workington supported a local under nines football group by buying them much-needed equipment.



ARTS AND CULTURAL PROGRAMS AND SPONSORSHIPS





IVL has sponsored the construction of Baan Hollanda, a memorial museum of the Dutch settlement in Ayutthaya, Thailand.

Asia Pet (Thailand) Limited supported The Anti-Drug Music Competition at Tha Khlong Municipality on September 29, 2012.

Art and culture is a common center for countries around the world. IVL recognizes that these things bring pleasure to many people and in 2012 Lithuania's Orion Global Pet sponsored a Jazz Voice Contest to support talented young local people while TPT Petrochemicals arranged regular painting activities (that we call Art Imagine in our Beacon magazine) to Baan Map Ta Phut students.

AlphaPet in Alabama sponsored the Princess Theater for the Performing Arts during their 2012-2013 Professional Series.

ENVIRONMENT



The Adopt-a-Beach Project took place at Hat Mae Rampheung Beach, Rayong, twice in 2012. Staff and schoolchildren cleaned two kilometers to ensure that a beach popular with visitors is kept clean and to enhance the reputation of Thailand among foreign and local visitors. Total garbage collected in 2012 amounts to 3,642 kg or 3.642 tons.



We went to Din Daeng Flats, a poor community area in Bangkok to encourage trash sorting and provide people with ideas to supplement their income. There was a demonstration of how to make items from recycled plastics.



The Waste Recycle Bank at Nong Fab School, Rayong, commenced in 2010. We constructed a cage to collect waste, donated equipment and hired an officer from the Department of Environmental Quality Promotion to show how to run the bank. Students are now more aware of how to manage waste and learned the three R's of Reduce, Reuse and Recycle to earn extra money. Most students save the money they make and withdraw it when they leave school as part of their further education scholarship. The total waste collected since the start amounts to Baht 246,445.26 or 70,718.10 kg.

INDORAMA

Joining with communities in tending to the environment is the best way to ensure that they are aware of its importance. Indorama Petrochem in Rayong joined together to release crabs into the sea in a ceremony organized by Payoon Small Fishery Group, Banchang. This activity aims to increase quantity of crabs in the local sea. Indorama Petrochem also joined in the Payoon Beach Cleaning activity following World Environment Day 2012.

EDUCATION



Indorama Polyester Industries Nakhon Pathom cooperated with Nakhon Chaisri Police Station in organizing Ethics and Morality classes in the Behavior Changing program for drug rehabilitation on February 20, 2012 and May 18, 2012.



Indorama Polyester Industries Rayong arranged a free teaching program at Ban Map Ta Phut School to educate community students and help parents save the cost of extracurricular courses. Expat wives and IVL staff taught English, Mathematics and Science.

Community involvement strengthens the bond among our employees who are a part of that community or who are familiar with it. This is why we encourage community activities and education is regarded as one of the most worthwhile among all staff. In the USA, FiberVisions Covington plant's Children's Charity purchased back-to-school items for poor children; supported reading by buying books for a local library; supported a High School Robotics Club to promote engineering and science for children and helped poor people heat their homes. Their sister company in Denmark FiberVisions Varde, supervised, evaluated and provided much-needed work experience to young people from a local technical school to play their part in youth education.

PT. Indorama Ventures Indonesia's Jamsostek's Scholarship Program provides student scholarships. Awards were given of Indonesian Rupiah 2.400.000/ person per year for high school and university level, Rupiah 1.800.000/ person per year for elementary - junior high school level.

Lopburi's Indorama Holdings participated in the program Recovery Operations for Those in Industries Affected by Flooding conducted by the Provincial Skill Development Center. The training taught flood victims how to repair household appliances.

Indorama Polyester Industries Rayong provided soil to the Community School in Map Ta Phut for use in land leveling in preparation for a new school building. Over 300 cubic meters of unneeded soil was moved from our plant to the school with IEAT permission. In Lopburi, staff gave up their free time and found they could re-purpose materials damaged by flooding in 2011, specifically scrap iron, which they used to construct football goals, donating a set to Ban Pak Khlong Phra community football field.

Orion Global Pet in Lithuania arranged a library book donation to engage employees. People donated approximately 200 books.



EMPLOYEE VOLUNTEER PROGRAM



Volunteers from Orion Global Pet (OGP) with villagers and children from a local school cleaned the area around the OGP site and Jakai Village School.



Volunteers from AlphaPet worked in partnership with Habitat for Humanity to paint houses at a poor community.



Auriga Polymers was awarded a trophy for the largest increase in employee giving to local charities. Robert Hendrix accepted the award on behalf of employees.

COMMUNITY HEALTH AND WELLBEING



AsiaPet staff helped create a chicken farm at local villages. The project helped communities learn how to raise organic chickens and provided supplementary income as well as reduce unemployment and promote alternative protein sources in the community.



Indorama Ventures donated one million baht to build a drinking water plant (Reverse Osmosis system). The grand opening took place at Tambon Huay Sampad, Udon Thani Province.



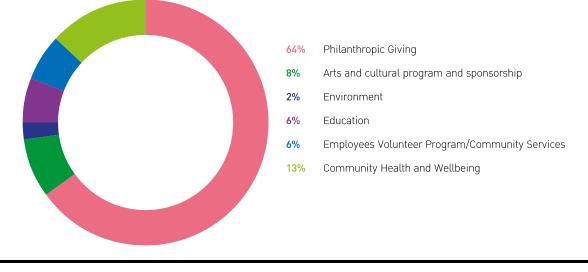
TPT Petrochemicals arranged a free lunch program at Krok Yai Cha local community school.

Disease is often an unnecessary blight on community lives, which is why each year IVL employees arrange blood donations. In 2012, these included donations by Indorama Polyester Industries Nakhon Pathom in Thailand and Orion Global Pet in Lithuania.

AlphaPet staff provided help and healing to children who have suffered abuse and employees, spouses and children participated in a walk-a-thon fundraiser for breast cancer awareness, breast health and medical research.

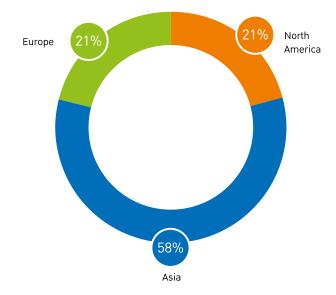
PROGRESS IN DEVELOPING LOCAL COMMUNITIES

DEVELOP LOCAL COMMUNITIES PROGRAMS IN 2012



PERFORMANCE DATA	ASIA	NORTH AMERICA	EUROPE	GRI
Percentage of operations with implemented local community	58	21	21	S01
engagement in 2012 (%)				

PERCENTAGE OF OPERATION WITH INPLEMENTED LOCAL COMMUNITY ENGAGEMENT IN 2012





GLOBAL REPORTING INITIATIVE INDEX

For this 2012 Sustainability Report, IVL is using the disclosures outlined in this index. These are consistent with our application level of C in reporting against the GRI guidelines and framework.

1	Strategy and Analysis		
1.1	Statement from the most senior decision-maker of the organization.	Reported	Page 2,3
1.2	Description of key impacts, risks, and opportunities.	Reported	Page 28
2	Organizational Profile		
2.1	Name of the organization.	Reported	Page 5
2.2	Primary brands, products, and/or services.	Reported	Page 8
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Reported	Page 6
2.4	Location of organization's headquarters.	Reported	Back Cover
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Reported	Page 11
2.6	Nature of ownership and legal form.	Reported	Page 26
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Reported	Page 14
2.8	Scale of the reporting organization.	Reported	Inside Cover
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Reported	Page 22
2.10	Awards received in the reporting period.	Reported	Page 26
3	Report Parameters		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Reported	Page 34
3.2	Date of most recent previous report (if any).	-	-
3.3	Reporting cycle (annual, biennial, etc.)	Reported	Page 34
3.4	Contact point for questions regarding the report or its contents.	Reported	Back Cover
3.5	Process for defining report content.	Reported	Page 34
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	Reported	Page 34
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	Reported	Page 35
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	-	-
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	Reported	Page 34



3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g. mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	None	-
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Reported	Page 34
3.12	Table identifying the location of the Standard Disclosures in the report.	Reported	Page 82-85
3.13	Policy and current practice with regard to seeking external assurance for the report.	None	-
4	Governance, Commitments, and Engagement		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Reported	Page 32
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Reported	Page 33
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	Reported	Page 33
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Reported	Page 33
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Reported	Page 33
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Reported	Page 33
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	Reported	Page 33
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Reported	Page 33
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	Reported	Page 33
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Reported	Page 33
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Reported	Page 33
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Reported	Page 33
4.13	Memberships in associations (such as industry associations) and/or national/ international advocacy organizations in which the organization	Reported	Page 33
4.14	List of stakeholder groups engaged by the organization.	Reported	Page 62
4.15	Basis for identification and selection of stakeholders with whom to engage.	Reported	Page 62



4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Reported	Page 62, 66-67
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Reported	Page 62, 66-67
INDICATO	RS		
	PERFORMANCE		
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Reported	Page 36
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	-	
EC3	Coverage of the organization's defined benefit plan obligations.	-	
EC4	Significant financial assistance received from government.	-	
MARKET F	PRESENCE		
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	-	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	-	
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	-	
INDIRECT	ECONOMIC IMPACTS		
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	-	
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	-	
ENVIRONM	IENTAL PERFORMANCE		
MATERIAL	S		
EN1	Materials used by weight or volume.	Reported	Page 36
EN2	Percentage of materials used that are recycled input materials.	-	-
ENERGY			
EN3	Direct energy consumption by primary energy source.	Reported	Page 53
EN4	Indirect energy consumption by primary source.	Reported	Page 36
EN5	Energy saved due to conservation and efficiency improvements.		
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Reported	Page 47
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Reported	Page 47
WATER			
EN8	Total water withdrawal by source.	Reported	Page 53
EN9	Water sources significantly affected by withdrawal of water.	Reported	Page 53
EN10	Percentage and total volume of water recycled and reused.	Reported	Page 56



BIODIVER	RSITY		
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Reported	Page 11
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Reported	Page 11
EN13	Habitats protected or restored.	-	
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Reported	Page 11
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.		
EMISSIO	NS, EFFLUENTS AND WASTE		
EN16	Total direct and indirect greenhouse gas emissions by weight.	-	
EN17	Other relevant indirect greenhouse gas emissions by weight.	-	
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	-	
EN19	Emissions of ozone-depleting substances by weight.	-	
EN20	NOx, SOx, and other significant air emissions by type and weight.	_	
EN21	Total water discharge by quality and destination.	_	
EN22	Total weight of waste by type and disposal method.	Reported	Page 46
EN23	Total number and volume of significant spills.	Reported	Page 50, 52
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	-	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	-	
PRODUC	TS AND SERVICES		
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Reported	Page 44
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	-	
COMPLIA	NCE		
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	-	
TRANSPO	DRTATION		
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	-	
OVERALL			
EN30	Total environmental protection expenditures and investments by type.	-	



LABOR PRACTICES AND DECENT WORK

LADONT	RACINCES AND DECENT WORK		
EMPLOY	'MENT		
LA1	Total workforce by employment type, employment contract, and region.	Reported	Page 66
LA2	Total number and rate of employee turnover by age group, gender, and region.	Reported	Page 64
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Reported	Page 64
LABOR /	MANAGEMENT RELATIONS		
LA4	Percentage of employees covered by collective bargaining agreements.	-	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	-	
OCCUPA	TIONAL HEALTH AND SAFETY		
LA6	Percentage of total workforce represented in formal joint management- worker health and safety committees that help monitor and advise on occupational health and safety programs.	-	
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	Reported	Page 39, 65
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Reported	Page 39
LA9	Health and safety topics covered in formal agreements with trade unions.	-	
TRAININ	IG AND EDUCATION		
LA10	Average hours of training per year per employee by employee category.	Reported	Page 39, 61
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	-	
LA12	Percentage of employees receiving regular performance and career development reviews.	-	
DIVERSI	TY AND EQUAL OPPORTUNITY		
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	-	
LA14	Ratio of basic salary of men to women by employee category.	-	
HUMAN	RIGHTS		
INVEST	MENT AND PROCUREMENT PRACTICES		
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	-	
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	-	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	-	



NON-DI	SCRIMINATION		
HR4	Total number of incidents of discrimination and actions taken.	-	
FREEDO	OM OF ASSOCIATION AND COLLECTIVE BARGAINING		
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	-	
CHILD L	ABOR		
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.	Reported (not applicable)	Page 64
FORCE A	AND COMPULSORY LABOR		
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	Reported (not applicable)	Page 64
SECURI	TY PRACTICES		
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	-	
INDIGEN	NOUS RIGHTS		
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	Reported	Page 75
SOCIETY	/		
сомми	NITY		
S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	Reported	Page 81
CORRUF	PTION		
S02	Percentage and total number of business units analyzed for risks related to corruption.	-	
S03	Percentage of employees trained in organization's anti-corruption policies and procedures.	-	
S04	Actions taken in response to incidents of corruption.	-	
PUBLIC	POLICY		
S05	Public policy positions and participation in public policy development and lobbying.	Reported	Page 67
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Reported	Page 67
ANTI-CO	DMPETITIVE BEHAVIOR		
S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	-	
COMPLI	ANCE		
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	-	



PRODUC	CT RESPONSIBILITY		
CUSTON	IER HEALTH AND SAFETY		
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Reported	Page 9
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	-	
PRODUC	CT AND SERVICE LABELLING		
PR3	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements.	-	
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	-	
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	-	
MARKE	TING COMMUNICATIONS		
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Reported	Page 29
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	Reported	Page 29
CUSTON	IER PRIVACY		
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	-	
COMPLI	ANCE		
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	-	



Pursuing Sustainable Excellence

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