

# The Beacon

**Royal Remarks -  
Thai Danish Cooperation**

**Better Fibers  
for Better Service**

**IVL Today**

**Age Diversity in  
the Workplace**

Vol.09  
**2013**

July-September



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The Royal Families of Thailand and Denmark have a long relationship, commencing with the state visits of Their Majesties King Bhumibol Adulyadej and Queen Sirikit to Denmark in September 1960, and King Frederik IX and Queen Ingrid to Thailand in January 1962. Queen Margrethe II also made unofficial visits to Thailand in 1963 as Crown Princess, and in 1981 and 2001 with her Consort, Prince Henrik.

Commercial milk processing followed the state visit in 1960 with assistance from the Government of Denmark, when a dairy farm cooperative project was launched in Saraburi Province, Thailand. The Thai-Danish Dairy Farm was inaugurated and began operating on 16 January 1962 (later designated National Dairy Cow Day).

## Royal Remarks: Thai Danish Cooperation

By the end of the 1960s over-supply problems led a group of farmers to petition the King for help. In response, a trial milk powder production plant was initiated within the grounds of the King's residence at Chitralada Villa, Dusit Palace, in Bangkok. His Majesty's experiment assisted in diversifying the livelihood of farmers through the promotion and extension of dairy farming using simple methods of animal husbandry, milking, pasteurizing and packaging for the interested public to observe at the Dairy Farm and Milk Production Unit within the grounds of the Palace. The Powdered Milk Plant processed the surplus of milk for distribution to the needy and to be sold on the open market. All these experiments are considered pilot projects for further application by farmers or farmers' groups to promote and enhance the well-being of their families.

Following that experiment, a milk powder factory was established at Nongpho Dairy Cooperative in Potharam District, Ratchburi Province, which was Thailand's first dairy cooperative scheme.



### Editor's Note

We focus this issue on our fibers business and have an interesting article on bicomponent fibers, which are very important to several industries. Our bicomponent manufacturing in Indonesia is one of the highlights of our specialist portfolio.

We also turn our gaze to one of our Fibervisions plants in Denmark and tell you a little of the plant surroundings and history of that country so that whenever you think of our friends and colleagues there you will understand just how fortunate they are to be in such a nice country. Not just blessed with beautiful surroundings, our FiberVisions Denmark overview continues with an article on their use of Lean Six Sigma to improve their work system.

Due to our global nature, we also have an article on doing business in China (part 2) and future issues will have more on cultural understanding.

Naweensuda Krabuanrat

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#### Reference

The Beacon is published every quarter to provide information about the company's news and activities to all stakeholders. Not for sale.

#### Editor

Ms. Naweensuda Krabuanrat

# Message from The President

**D**ear Readers,

Our Fiber business has grown tremendously driven by our product regional application and regional diversification strategy to create a unique market driven and sustainable business model. While creating a world scale competitive production platform we have simultaneously entered previously un-served product segments such as Automotive, Hygiene and Industrial applications and increased our presence in new regions across the globe. Our fiber volume has grown at CAGR of 48% over the last three years and specialty volume share has increase to 52% against 30% in 2010. The Business Vitality Index has improved to 23% in 2012 against 15% in 2010.

Today we are the only fiber producer with manufacturing presence across 11 countries in both local and international markets with a wide range of fibers and yarns serving premium customers across Apparel, Home, Hygiene and Technical Applications. We continue to invest in people, research and application development. Our investment in fiber R&D was over US\$5 million in 2012 and is expected to be over US\$10 million in 2013.

Our strategy has served us very well and our future success will depend on our ability to enhance our competitive advantage by pre-emptively creating products that our customers demand while maintaining cost control.

Smart Products, Lean Processes and Passionate People are cornerstones of our business growth and sustainability.

Our global Marketing and R&D teams create advanced products and applications with specific focus on "Green Imperatives". Our manufacturing team has "Operational Excellence" as our DNA across our business processes. Tools such as Knowledge Portal and OBI are increasingly creating a collaborative working environment across system. Our people work with unyielding determination and passion, an asset, which can't be replicated.

We have developed a unique application for PLA fibers at Trevira Germany that has been approved and commercialized for use by the fracking industry in the shale gas segment as our fibers are bio degradable.

We are building one of the largest, state-of-the-art, continuous polymerization lines in Indonesia with a capacity of 320 KTA, which will be commissioned in October 2013. We have commissioned a 16 KTA bi-component fibers line in Rayong in June this year and we are building another bi-component line of 14 KTA in Suzhou China for hygiene fibers that will be commissioned in September 2013. We are building a 35 kilo tonnes per annum (KTA) recycled bottle to flake and fiber line in Nakhon Pathom that will be commissioned in November 2013. At IVI Indonesia we are implementing a 12 KTA FINNE (INOV) yarns project that will be commissioned in June 2014. These projects will provide IVL and our customers with a unique and highly competitive position.

As we continue on our path of extensive global growth and we, as a business, will continue to create value for our stakeholders and the community we operate in.

Udey Gill  
President

Fibers and Yarns Business







Continuing our conversation about Chinese business culture started in a previous issue of The Beacon; remember that seniority is valued in China so address your counterparts by their title; Mr. Chairman, Madame Director, Vice President Li, etc. Learn beforehand who the most senior person in the room is, and address them first. The Chinese will usually introduce themselves by stating their company first, then their title, and then their name. Don't forget, the first name is the family name in China. Hand over your business card to the most senior official first. Chinese use both hands when giving and receiving anything of value, including gifts and business cards, so follow that tradition.

The senior-most guest should enter the meeting room first for a high level government meetings but this is not so important for regular business meetings. The seating is typically arranged by rank. The host should escort the senior-most guest to his or her seat as well as any VIP guests. The place of honor is to the host's right on a sofa or in chairs that are opposite the room's doors. IVL's Investor Relations team always sits back to windows facing the door in Hong Kong and Singapore meetings. It might not seem important, but think of it as being polite and respecting their culture.

Subordinate members of the Chinese party will not usually speak unless asked to by the most senior person so when it is your turn to talk, lead the discussion but ask someone to speak if that person has a special knowledge or expertise.

The Chinese and many other Asians will often nod their heads or make affirmative sounds. These are just signals that they are listening to and understanding what is being said - not agreements. Do not interrupt when listening to someone as it is considered rude. Also, don't put anyone on the spot by asking them to provide information they seem unwilling to give. Don't challenge a person directly. Doing so will lead them to become embarrassed and lose face i.e. feel they have lost the respect of those in the room.

With business dinners, food and seating are also determined by the hosts. Start eating when the hosts begin or wait to be invited before you start eating. The Chinese tend to offer a lot of food, and it is acceptable to refuse food if you have dietary restrictions or allergies. With no medical objection, accept some of everything, and sample all dishes served. There is no need to finish the whole dish.

Don't drink Chinese wine on an empty stomach as it is very strong. Note that drinking is sometimes expected as proof of a close relationship where partners can reveal their true selves, even in a business context. The host pays. If you are hosting a meal, do not show money in front of your guests. Either have someone slip out and settle the tab or wait until your guests have left before paying.

## Creative ways to recycle plastic beer bottles and old inner tubes.



A plastic bottle might take decades or hundreds of years to degrade, so it is a good idea to reuse it—definitely a better idea than dumping it. Although we can't single-handedly clean up the environment, everyone can make choices in their daily life that are environmentally friendly and beneficial to our community. Simple changes, such as finding green alternatives for the disposal of everyday products we consume, can have a huge impact on water quality, energy use and the amount of pollution and waste we generate.

In this issue, we have examples of green alternatives that are recycled from different kinds of waste that might help you to picture what alternatives are there.



### Bottle Rockets

Produced by 'Bonobos', a men's apparel brand from New York, the concept is simplicity and flexibility, about the ease of drinking a beer by just opening a can or plastic bottle while wearing your all-time favorite jeans. Imagine what it would be like



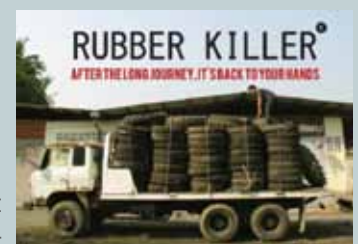
if plastic beer bottles and jeans could save the earth! And so we have 'Earthspun', a combination of polyester yarn made from recycled plastic beer bottles and natural cotton yarn. Earthspun fibers have been woven into the jeans collection to celebrate Earth Day this year.

One pocket inside of a pair of 'Bottle Rockets' is stamped with the symbol of three beer bottles, which notifies that these jeans are made with plastic beer bottles.

In Thailand there are many designs that are produced from recycled waste. This is one that is made of old inner tubes.

### RUBBER KILLER - "After the long journey, it's back to your hands"

A Thai designer has developed cool, durable and stylish street fashion products from old inner tubes that most people consider waste, useless for reusing in such a great way.



Rubber Killer was founded three years ago in 2010. The most popular products are wallets, messenger bags and tote bags.

Rubber Killer was chosen by Image Magazine in January 2013 as one of the Most 100 Desirable Things in Thailand.

We wholeheartedly believe that these three examples would give you a clearer picture of green alternatives and creative recycling that make money and most importantly, can be used in daily life. Have you started thinking, doing or using anything that shows you care for our environment lately?

Sources: <http://men.mthai.com/fashion-style/6477.html> and [www.rubberkiller.com](http://www.rubberkiller.com)

# Better Fibers for Better Service



Conjugate



Sheath-Core



Segmented Pie or Citrus

Indorama Ventures entered the synthetic fiber and yarn business in 2007 in Thailand. Over time, the company has expanded its territory and product line to broaden its portfolio of products to meet the requirements of all our customers. Such investments have now allowed us the ability to produce bicomponent fibers and filaments.

As its name suggest, a bicomponent yarn is one comprising two polymers. These are combined by extruding two polymers from the same spinneret with both polymers contained within the same filament. The main objective of producing bicomponent fibers is to exploit capabilities not existing in either polymer alone. While the cross-section of a bicomponent fiber can be almost anything you want, the common structures are side-by-side, sheath-core, islands-in-the-sea and citrus fibers or segmented-pie.

PT Indorama Ventures Indonesia (IVI) has been producing FINNE since 2001, under its former owner SK Chemicals. FINNE is a filament bicomponent yarn where one component is Partially Oriented Yarn (POY), filaments that are partially drawn and partially crystallized and the other is Fully Drawn Yarn (FDY), produced

by a process similar to POY manufacturing except that the yarn is produced at higher spinning speeds coupled with intermediate drawing integrated in the process itself. This allows stabilization through orientation and crystallization.

IVI owns unique technology to make bicomponent yarn through a single step process, and is the market leader in this segment having a dominant market share and significant competitive advantage over producers who use a two-step process. To date, no one has been able to match this product and there is un-met demand in the market.



IVI has now developed a new generation of FINNE (INOV) to enhance its current lead over competitors with superior quality. The focus is on consistently improving the

value-added product profile and expanding with four new lines expected by mid-2014. Weaving applications with a high twist and sizing route have been the main strengths of FINNE (INOV) products and new product innovations have found acceptability with



growing consumption in circular knitting applications also.

Currently, FINNE production capacity is 2,500 tonnes per month and after four-line expansion it will grow to 3,700 tonnes per month. The product market has considerable application potential which has not yet been tapped as it is extensively used in ladies dress material and scarves, Middle-Eastern style Abaya and Burka with a chiffon or peach feel. The market for our products is globally diversified and includes India, Egypt, Vietnam, Korea, Japan, Iran etc. To extend further, IVI is looking for new applications without reducing the margins for existing business.



## Adirek Khamnoi (Arm)

<b>Name:</b>	Adirek Khamnoi (Arm)
<b>Age:</b>	25
<b>Education background:</b>	Srinakharinwirot University
<b>Faculty:</b>	(3 <sup>rd</sup> year) Fashion Design, Faculty of Fine Arts
<b>Dream Career:</b>	Fashion designer

### ► How did you hear about the contest?

I heard about it from my friend and the Thaicatwalk website.

### ► After RECO, have you participated in any other design contests or received any awards?

I was in the final eight of Saha Group Bangkok Young Designer Awards 2012.

### ► Why did you participate in RECO?

I don't like plastic (waste) and I like the challenge of the contest theme. I like that I have to do something that converts waste into clothes that you can actually wear.

### ► What is the inspiration of your creation?

First of all, I think about the material. The material should be something which seriously harms the environment such as plastic bags. It's more challenging converting waste plastic bags into clothes and combining modern art concepts that I personally like and am interested in.

### ► Did you get any comments from your professors or only the contest judges?

I consulted with my counselors at the faculty. I consulted my counselor, Professor Korrakod Khamsook and on cutting with Professor Sawanya and used comments from the judges also.

### ► What did you get from the contest?

I gained real experience from doing all the steps by myself.



Mr. Adirek and his design on a model during the final round.

### ► Have you applied the experience you gained from the contest in your daily life or creating more work? Have you thought of designing clothes from recycled materials for yourself or for sale?

I wish to develop my work to become learning media for kids, as eco-friendly products that can be used in daily life.

I applied the experience I gained by doing every step by myself, such as choosing the material, cutting and everything. In terms of producing recycled product, I'm still looking for new materials. If I find what I'm looking for, I'll definitely produce something.

### ► Would you like to pass on anything to the contestants next year?

What we get from participating in the contest is not just the prize but also the process of designing. Anybody can think, but to do it and make it turn out well is difficult. When you decide to do something, what you get is the experience. Indorama Ventures' project is really interesting because it's a challenge to make waste into clothes that can actually be worn.

### ► 3 words for RECO Young Designers.

Let's Do It!

### ► What are your future plans?

I will study at the Royal Academy of Fine Arts in Antwerp, Belgium after I graduate.





Mr. Apiwat (one of the judges) and H.E. Mr. Johannes Andries Boer (right) sit on Miss Natthaman's master piece.



# Natthaman Thanesnit (Palm)



**Name:** Natthaman Thanesnit (Palm)  
**Age:** 25  
**Education background:** King Mongkut Institute of Technology Ladkrabang  
**Faculty:** Faculty of Architecture Industrial Design  
**Dream Career:** To be a designer who can use her knowledge to develop society.

► **Have you heard of Indorama Ventures before joining the contest?**

I first heard of Indorama Ventures after I joined the RECO Young Designer Award and then I was informed that Indorama Ventures is one of the largest vertically-integrated polyester chain producers in the world.

► **How did you hear about the contest?**

I heard about it from an article in "Contest War." Magazine I thought that this would be a very interesting contest.

► **Have you participated in any of the design contests related to the environment or using recycled materials before?**

Yes, I participated in the Thailand Eco Design Award 2010 organized by the Ministry of Science and my "Green Wall" project won the 2nd prize at that contest.

► **After RECO, have you participated in any other design contests or received any awards?**

No, I have just focused on developing my "Let's Make A Seat" project to be more effective.

► **Why did you participate in RECO?**

First of all, this is a program that supports the environment. I think that there are many activities and creative programs nowadays involving new innovations but we should develop and support the environment around us as well.

► **Can you tell us how difficult it is using re-used materials including using Indorama Ventures' materials in your work?**

I started off with the whole picture of the theme of this year which was "design for sustainability", then I defined "sustainability" as involving "sufficiency" in a simple way by maximizing the value of waste.

► **What is the inspiration for your creation?**

The inspiration is from the potential of the plastic bottle and maximizing usage. Actually, its values are numerous such as its capability of being attached by a twist.

► **Did you get comments from any professors at your faculty or only the contest judges?**

I received comments from the committee judges only. They gave me interesting ideas and helped in developing my work a lot.

► **What did you get from the contest?**

I believe that participating in a contest helps broaden my vision by seeing and sharing ideas with others, so that I can add more dimensions to my ideas as well as have fun and make more friends.

► **Have you applied the experience you gained from the contest in your daily life or created more work?**

I wish to develop my work to be learning media for kids, including its viability as an eco-friendly product that can be used in daily life.

► **Would you like to pass anything on to the contestants next year?**

For those who want to participate next year, I'd say this is an interesting contest. Apart from gaining more knowledge, you can also gain more experience.

► **3 words for RECO Young Designers.**

Don't Miss It.

► **What are your future plans?**

I want to study design abroad, so now I'm gaining more work experience as a designer at Kenkoon Co. Ltd., which is a famous furniture design company in Thailand.



PROMISE FROM OUR SENSE OF COMMITMENT AND QUALITY FROM BEING SERVICE ORIENTED


**RECO**

 YOUNG DESIGNER  
COMPETITION


**2013** Design for life

**CUSTOMER CENTER**

# Indorama Ventures Today

The company's total sales revenue of US\$ 1.9 billion in the second quarter of 2013 was a rise of 9% over the first half of 2012, which led to a positive feeling that the industry down cycle was coming to an end. With a net profit of US\$7 million, according to one equities analyst, Indorama Ventures is the only company in its space that has never made a core net loss in any quarter. This commendable record is likely due to the company's differentiation as a focused Polyester value chain manufacturer and its ability to manage costs efficiently. The company was sufficiently encouraged by the result to announce an interim dividend payment for the first half of the year of Baht 0.14

per share or US\$ 22 million.

Encouraging news from North America as the turnaround of our glycols facility in Texas during the second quarter of the year to replace the catalyst at the plant is expected to reward the company in the second half with improved production output and higher margins as the North American market supply of MEG remains tight.

The new Indorama Ventures website has been up and running for a few months. With a stronger emphasis on transparency and stakeholder orientation, it is becoming a one-stop shop for all information on the company. A new concept of providing business lines with a showcase area for their customers,

and a detailed contact list globally, has been receiving encouraging feedback from business people in the company that they have received more inquiries since the site opened. [www.indoramaventures.com](http://www.indoramaventures.com)

The website also has our company policies, especially focusing on good corporate governance that reflects our desire to be an admired company in our industry. We have been promoting the dissemination and understanding of all our policies through a Corporate Governance Policy Awareness Campaign (or CGPAC for short). We are providing translations too in multiple languages so that people in the countries where we operate may read and understand what we are aiming for.







StarPet completed 10 years of operations under Indorama Ventures at Asheboro, North Carolina, on April 3, 2013.



SCB Bank and KTB Bank representatives visited Indorama Ventures Oxide & Glycols on March 13, 2013.



H.E. Mr. Chirachai Punkrasin, the Royal Ambassador of Thailand in Mexico, visited Indorama Ventures in Queretaro, Mexico, on March 5, 2013.



April 4 2013 Ms. Paveena Sriphothong, Issuer & Listing Division Group Head of the Stock Exchange of Thailand visited Indorama Ventures to congratulate the Head of Investor Relations, Mr. Richard Jones, for being named as one of the top 25 IR officers in the world of all time.



Ms. Prapai Palakawong Na Ayuthaya from Indorama Polyester Industries (Nakhon Pathom) received the Distinguished Woman Award 2013 on International Women's Day, March 7, 2013.



Indorama Polyester Industries (Nakhon Pathom) has been selected to participate in the 27<sup>th</sup> International QCC Exhibition organized by the Department of Industrial Promotion, 22-24 April 2013, at the Department of Industrial Promotion Building, Ministry of Industry.



Representatives from RBS, Nordea, ING and Bangkok PCL bank visited Indorama Europoort Site in Rotterdam after completion of the PET2 project.



Ms. Prapai Palakawong Na Ayuthaya representing Indorama Polyester Industries (Nakhon Pathom) received a Certificate of Excellence for Distinguished Establishment Skill Development Promotion 2013 from the Department of Skill Development, Ministry of Labour on March 2, 2013.



ES FiberVisions completed construction of a new building at the Suzhou site that will house a new bicomponent fiber line. The line is expected to begin supplying customers in the fourth quarter of this year.



Indorama Ventures organized the Annual General Meeting of Shareholders on April 29, 2013.



The Welfare and Safety Committee of Indorama Holdings participated in National Labour Day and Safety Week 2013. Ms. Wanpen Sukprasert won the slogan contest.





Indorama Ventures organized an Analysts Meeting to discuss Q1/2013 financial results in Bangkok on May 14, 2013.



Indorama Ventures Oxide & Glycols received the Pinnacle Award for chemical transportation safety from Union Pacific on May 16, 2013



The mayor of Wloclawek planted trees at Indorama Ventures Poland on World Environment Day, June 5, 2013.



Indorama Petrochem was rated excellent by the Industrial Estates Authority of Thailand (IEAT). 1<sup>st</sup> time to audit year 2013.



Indorama Petrochem received the Carbon Reduction Label Certificate in recognition of its environmentally friendly process on June 18, 2013.



The Thai Prime Minister H.E. Yingluck Shinawatra, visited Poland in June and visited an exhibition set up by the Thai Ambassador to Warsaw. Mr. O.P. Mishra, General Manager of our Poland Office, was on hand to greet the Prime Minister and Bangkok Bank management team.



IVL management led by Mr. Alope Lohia met with Thai funds on July 2 2013 at IVL Head Office Bangkok in order to discuss the Company's business and its outlook.



On July 5, 2013 Indorama Petrochem received the Outstanding Establishment on Safety Occupational Health and Environment Award National Level for the 3<sup>rd</sup> consecutive year (2011-2013) from Mr. Arhit Issamo, Director-General of Department of Labour Protection and Welfare, Ministry of Labour.



On July 5, 2013 Indorama Polyester Industries Public Co., Ltd. (Nakhon Pathom) received the Outstanding Establishment on Safety Occupational Health and Environment Award, National Level for the 4<sup>th</sup> consecutive year (2010-2013).



# Art Imagine



## Dear Readers,

Welcome to the rainy season with all its greenery and magnificent flowers blooming for Mother's Day. I believe many of you make time in this season for your loved ones. This also includes the kids at Baan Lang Khao School, who wanted to express their love through wonderful drawings. I am sure we can all appreciate their imagination through their touching artwork.

Thanks to Mr. Thaveechai Piyasuk, Baan Lang Khao School Director and all the teachers who cooperated with and support us in this activity.

Contact: Baan Lang Khao School Tambon Bang Butr, Amphor Baan Khai, Rayong 21120  
Tel: 038 010 024



1st Prize



Ms. Phromporn Vijinda

2nd Prize



Ms. Nuntida Kaveewong

3rd Prize



Ms. Saithip Kaveewong







Indorama Petrochem organized the Introduction to ISO50001 System Course to advance executives' knowledge about energy management on February 20, 2013.



Mr. Alope Lohia granted certificates of recognition to employees who have been working at the Queretaro site since the operations started.



FiberVisions donated a mobile water sampling trailer to the city of Covington, Georgia, to support a clean environment.



Mr. Alope Lohia planted trees at Indorama Ventures Mexico on March 19, 2013 as a symbol of continuous growth and to support a sustainable environment in the factory.



Auriga Polymers employees raised \$56,050.36 for charity for their communities through the United Way. They also collected 4,070 cans of food for those less fortunate.



Wellman International Ireland organized a Coffee Morning in aid of Our Lady's Hospice, Harold's Cross. The event raised €2,000.



Indorama Petrochem, Indorama Polyester Industries, TPT Petrochemicals and Indorama Ventures Head Office joined the 3<sup>rd</sup> Adopt a Beach activity by cleaning Mae Ram Pueng beach on March 23, 2013. A total of 4,300 Kg. of garbage was collected on the beach.



Lucie Horn presented Dr. Pisit Leeatham Chairman of Netherlands Thailand Chamber of commerce, a souvenir at the Baan Hollande Museum in Ayutthaya, Thailand, on March 29, 2013. IVL is a sponsor of the museum.



Mr. Richard Jones, Head of IR & Corporate Communications, gave a session on the company to postgraduate students from Kasetsart University to support their studies.



FiberVisions Covington supported the "Great American Cleanup" in Covington, Georgia area where volunteers from the community cleaned and picked up trash from the sides of local roads.



Indorama Polyester Industries (Nakhon Pathom) joined with their local community to treat the water in a local canal by adding Effective Microorganisms (EM).





▶ The scholarship committee of Indorama Ventures Lopburi (top) granted scholarships to ten employees' children who achieved academic excellence. Mr. Sunil Fotedar, CMO of TPT, (below) provided annual scholarships to 62 children of employees. This project has continued for 17 years.



▶ Indorama Polymers organized fire extinguisher training and practiced fire evacuation procedures for employees and their families on May 13, 2013.



▶ Indorama Holdings organized English Conversation class for children in Ban Pak Klong Phra community for six weeks, starting on June 1, 2013 and on the last day of training the company gave "English Conversation" books to the children.



▶ IVL Head Office arranged for Team Building at Hua-Hin. The CSR activity to donate books, sports equipment, toys and a free lunch and ice-cream to Children at Prue Noi School.



▶ Ayazur Rehman and Poorva Jalan joined Auriga Polymers for Summer Internship.

▶ Indorama Ventures Poland joined the campaign "A Tree for a Bottle" on the World Day for Environment Protection. The aim of the event is popularization of ecological awareness among the young generation and local society.



▶ When mangosteens went into oversupply in the Rayong Market and the price came down, TPT coordinated with the Industrial Estates Authority of Thailand (IEAT) and the Rayong Governor to support fruit gardeners by buying 425 kg. of mangosteens and distributing to all employees in order to support the price.



▶ PT. Indorama Ventures Indonesia gave 12 scholarships to the children of IVI's employees. Each student received Rupiah 1,800,000.



▶ TPT Petrochemicals, Indorama Polyester Industries (Rayong) and Indorama Petrochem, supported World Environment Day and sent volunteers to plant trees to increase the green area in the community, painted the sidewalk, and collected garbage at Nam-rin Beach. This event was organized by Banchang Sub-district Municipality.





Indorama Polymers invited Mr. Napat Saguan-ngam, Catfish farming expert, to teach the techniques of fish farming to fishermen in Lopburi Province on June 18, 2013.



Bangkok office HR arranged a training course on "Looking Good for Smart People" to help employees gain more confidence and exude professionalism.



FiberVisions employees participated in the Brevet charity bicycle ride supporting research on aplastic anemia, a deadly bone marrow disease.



HR staff attended the CSR Report seminar by the Thaipat institution at Head Office.



FiberVisions Athens employees held a series of cookout fundraisers on each shift and donated \$1,071 to the annual "March of Dimes" charity that works to improve the health of mothers and babies.



The IR and Corporate Communications Department arranged a CSR project on Women's Law, inviting the Women's Lawyers Association of Thailand to provide information about family law and family violence, the labor law and general law in daily life.



Wellman exhibited at Tectextil (technical textiles trade show) Frankfurt Germany, June 2013



AlphaPet employees and their families participated in a Dragon Boat Race in May. The competitive event organized by Decatur General Hospital, which is a fundraiser for the Hospital. Each team comprised 25 people with a minimum of eight females on the boat. Our employees brought food from home and all enjoyed the event.



# AGE DIVERSITY IN THE WORKPLACE

## Or, how Gen-Y and Baby Boomers can work happily together

Article by Mrs. Natnicha Kujcharattham, Assistant Vice President of Human Resources Public Affairs Divisions.



If any organization has employees working together with no people issues, then that organization would definitely have an advantage over the competition. The absence of conflict will enhance collaboration to improve both quality and productivity. With the world in constant flux, organizations are faced with conflicts arising from differences among generations of adolescents, adults, and in-betweeners and this can cause work delays. In today's organizations, we may find three generations working together.

### Baby Boomers

Are people born between 1950-1964, now aged between 49 to 63 years. After World War II, people returned from the war to their spouses and loved ones and there was a sudden boom in births in the period that followed. The expansion of the Baby Boomers coupled high population growth with the changes from an agricultural to an industrial economy, forcing them to compete fiercely with people of the same age to get a job. The result was a life devoted to work, which led to job success. They respected formal rules and regulations, patience and passion for job achievement, highlighting concepts like diligence, dedication and loyalty to the organization. They did not feel the need to change jobs and want to work until retirement. Today, this group is considered to be the "senior" generation of the organization.

### Generation X

These are people born during 1965-1980, aged between 33 to 48 years now, born and raised in an era of economic prosperity. They are inclined toward new technology while some received the benefit of the wealth accumulated by their parents.

They focus on the balance between work and family (often called work-life balance). They are more receptive to concepts and welcome change. Some seek to change their jobs frequently or to revolutionize their lives somehow. These are the "adults" of the organization, able to adapt to a changing world. Sometimes Gen-X are colloquially known as Yuppies (Young Urban Professionals or Young Upwardly-mobile Professionals).

### Generation Y (The Me Generation)

People born between 1981-2000, now aged 13 to 32 have grown up with computers and other innovative technologies. As children they were provided with all modern conveniences by their parents. Considered a teenager that has entered working age, their extrovert character shows very high confidence in themselves. Often requiring high salaries, they do not want to climb from the bottom rung of the ladder. They don't appear to fit and do not like the rules. They love convenience and luxury and enjoy working independently. They consider themselves their "own man" and will disagree openly with others and the majority opinion. Today, many in Gen Y do not like working freelance and yet do not want to work in an organization until retirement.

Obviously, there are extensive differences between Baby Boomers and Gen Y and these can be the cause of difficulties when working together. Leaders must break down the two different ages and facilitate them to be able to work together smoothly with the introduction of basic technical understanding of how to "shatter the gap."

First, understand the background and



history of each era, educating each about the differences between the generations to those who were shaped differently and have different experience, beliefs and attitudes that affect their life and work behavior differently. Educate both Baby Boomers and Gen Y to help them understand each other. This will help to open their minds.

Next, create activities to highlight what makes each special. "Breaking the Ice" activities expose them to people of different ages, drawing them closer together. The two generations can then help each other identify the strengths in their counterpart instead of continuing with opposition and conflict. Breaking the ice generates a friendlier atmosphere where the ego, or self-esteem, is played down as this is one of the major causes of conflict.

Finally, hold a workshop on "Mind sharing coordination problems," meaning when there is trouble, bring them together to solve the problem of interoperability or coordination. Take aside those in conflict and help them to determine the root cause and identify solutions together. Typical causes of conflict that need to be solved tend to be the communication of people of different ages via their open-mindedness, physical and verbal communication. Perhaps use a psychologist or person who has faced the same problems; that is, someone who has deep knowledge that can help to find the root causes and solutions to their problems. This is a practical rather than theoretical method of problem solution.

These three abovementioned steps can build understanding and shatter the gaps effectively within the organization, enhancing the collaboration between Baby Boomers and Gen Y. In addition to creating a culture of collaboration (we can call this the Company Culture) these activities should also aim to create respect by Gen Y for Baby Boomers, creating opportunities for Baby Boomers to listen to the opinions of Gen Y. Good workplace culture will enlighten and encourage a collaboration of people who are of different ages working happily together, which is a fundamental of organization sustainability.



# Prevention of Pollution from VOCs.

In the previous issue, we discussed VOCs (Volatile Organic Compounds). This guide seeks to prevent pollution at the source of the VOCs and suggests prevention of VOCs during use.

## **Measures to prevent VOCs from the manufacturer.**

Here are some measures to protect against sources of VOCs. The plant's production of solvents and VOCs causes base chemicals to leach into vapor control equipment becoming a solvent and affecting the container handling capacity of the solvent. Something must be used to counteract the solvent at the required strength and must not react with it. Storage tanks for solvents must be specially designed and their construction must support the weight of the solvent so it can withstand sudden shocks. The tank condition must be checked every five years.

The company should be equipped with an anti solvent overflow tank (High Cut-off Device) to stop the pump automatically. Cooling pipe pressure and a vacuum is used to adjust the pressure inside the solvent container. Obviously, containers used to transport solvent and the piping system must

not leak and must be checked regularly under operating conditions.

The unloading of solvents from trucks using a bucket attached to the vehicle can be designed using a feather tank underneath (bottom loading) and must have a safety pressure relief valve and vacuum to prevent tank damage from pressure changes during the solvent transfer.

A power system for controlling the solvent unloading area must be on-hand in the area that meets standards, including the connection to the grounding system. Check for leaks and prevent them around the valves and joints. And replace equipment worn.

## **Protection and adoption of VOCs**

When it is necessary to work with solvent VOCs, make sure the room is prepared and work close to the door so that the vapors diffuse outwards. In the operations room a solvent spray system must be drained of VOCs and properly treated before being released into the environment.

When painting or working close to the exhaust system, VOCs can be captured for treatment but if one is working close to the end of the container, ensure the lid or closure is shut.

Storage containers must be closed after operation. Containers must be closed immediately if the spill is to be cleaned quickly. Using absorbent ashes, remove any sand or crust then conduct a complete cleaning.

Labeling on chemical containers must clearly identify the contents, including any chemical safety information (Material Safety Data Sheet: MSDS) of the chemical.

Make clear what the danger zone is and who is or is not permitted near. Install firefighting equipment in the vicinity. Operators are required to wear personal protective equipment, e.g. masks, at all times.

Provide training and suggest that workers learn how to operate near solvent VOCs and the potential danger.

Warehouses and storage rooms or areas where such solvent VOCs are kept should not install items that fit into gaps too tightly; you should leave just enough space for ventilation. Do not eat in the operations area.

Prevent pollution from VOCs. It is hoped that those involved in such activities will help prevent pollution into the environment of VOCs contaminants.



# Green Corner

Dear Readers,

This column aims to show how to make useful items from re-used materials. You will need two used PET bottles, washed out with soapy water of course, to make a great coat hanger. If you have some old polyester clothing don't forget to donate to charity. But here is another use for old clothes as we teach you how to make a simple pencil holder.

## PET Bottle hanger



### What you need:

1. 2 PET bottles (cleaned and dried)
- Remark:** use a bottle that has a small neck so that we can insert it in a pipe or bamboo section.
2. Screwdriver
3. 5 inch length of pipe or bamboo
4. Metal hook
5. 2 nuts



### Step 3:

Insert the heads of the bottles into both sides of the pipe or bamboo and secure them with the nuts at the holes of both sides.

And it's done! So easy everybody can do it!

### What to do:

#### Step 1:

Make three holes in the middle and the edges of the pipe by using a screwdriver, or anything that can make small holes in plastic.

**Remark:** Children please ask your mother or father to do this.



#### Step 2:

Then insert the hook into the middle hole.



## Pencil Holder from old polyester shirt



### What to do:

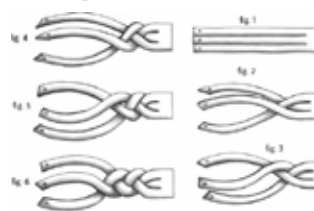
**Step 1:** Cut 8 pieces off the T-shirt (3"x14" each).



**Step 2:** Then cut each of the fabric pieces into three strands.



### Step 3:



**Step 4:** Put the glue on all parts of the toilet paper cardboard core.

**Remark:** If you did not want to show the toilet paper cardboard core you can use gift paper gift to wrap the outside first.



### Step 5:

Stick the braided fabric pieces onto the toilet paper core.



### Step 6:

Cut a piece of cardboard into a square or use an old CD for the base then glue it to the base.



### Step 7:

Then you can add some plastic flowers to the holder if you like. You now have a cool DIY pencil holder!



### What you need:

1. 1 Old polyester T-Shirt
2. 1 pair of scissors.
3. 1 toilet paper cardboard core.
4. Glue
5. Some plastic flowers.
6. cardboard or old CD





# Around Varde

Indorama Ventures subsidiary FiberVisions has a plant in Varde, Denmark, so this article aims to educate a little about Varde and Denmark. Denmark is small country, famous perhaps for being home to the happiest people on Earth according to some studies. Denmark also stands out for its high standard of living and the highest employment rate in Europe. It is also the home of some famous names like Hans Christian Andersen, LEGO and the beers Carlsberg and Tuborg.

A low-lying country, there are no real mountains with the closest thing a 170 meter-high hill called Møllehøj. The history of Denmark dates back about 12,000 years, to the end of the last ice age, with the earliest evidence of human inhabitation. The current monarch, Queen Margrethe II, can trace her lineage back to Viking kings, making the Monarchy of Denmark the oldest in Europe. Even its flag, Dannebrog, adopted in 1219, is the oldest state flag in the world still in use.

The Danish people were famously amongst those known as the Vikings during the 8<sup>th</sup>–11<sup>th</sup> centuries. Viking explorers first discovered and settled in Iceland in the 9<sup>th</sup> century, on their way from the Faroe Islands. From there, Greenland and Vinland (Newfoundland) were also settled. Greenland, the world's largest island, was discovered by Eric the Red in the 10<sup>th</sup> century.

Margaret I ruled the three kingdoms of Denmark, Norway, and Sweden (including the Faroe Islands, Iceland, Greenland, and present-day Finland) in what became known as the Kalmar Union, made official



in 1397. After the eventual cession of Norway in 1814, Denmark retained control of the old Norwegian colonies of the Faroe Islands, Greenland and Iceland. During the 20<sup>th</sup> century Iceland gained independence, while Greenland and the Faroese became integral parts of the Kingdom of Denmark.

Denmark began to shrink forcibly in the early 19<sup>th</sup> Century as it supported Napoleon. By 1814, Denmark had to give up Norway and became a constitutional monarchy on June 5, 1849. Denmark remained neutral during World War I (1914-1918), but the conflict affected the country's economy, which later led to Iceland becoming a sovereign Kingdom in 1918.

In 1972, Danes voted in favor of joining the European Community, the predecessor of the European Union, and Denmark became a member on January 1 1973.

Varde is a small town in the southern part of the Danish peninsula called Jutland, a 25 minute drive north of Esbjerg. The town belongs to the Varde municipality and has about 13,000 inhabitants. Varde is very popular among tourists staying in the region, with highlights such as the 12<sup>th</sup> century Varde Church and Minibyen miniature town. The latter is a detailed miniature town, modeled



after Varde around the year 1860. The historic town of Varde was actually burned down in the 1860s. Other sights include Varde Museum and the Military Museum.

The most famous person born in Varde was Johannes Nicolaus Brønsted, a Danish physical chemist for whom the Brønsted catalysis equation was named. More broadly, Denmark's most famous scientist was probably Tycho Brahe, who studied planetary motion.

Famous Danes include the actors Mads Mikkelsen (Casino Royale) and Brigitte Nielsen (Red Sonja) as well as film directors Bille August and Lars von Trier and Metallica drummer Lars Ulrich. Footballer Michael Laudrup, manager of Juventus, Barcelona and currently Swansea manager is a Dane (coincidence or not? Swansea was reputedly named after the island, Swayne's Eye, in the river that was a base for Danish Vikings).

Some North Americans that you didn't know were descended from Danes include Elijah Wood and Viggo Mortensen (Lord of the Rings), Hayden Christensen (Star Wars), Scarlett Johansson (The Avengers) and Leslie Nielsen (Naked Gun). Hamlet's castle was in Elsinore, Denmark, according to Shakespeare.



# Lean Six Sigma (Part 1)

Article by: Aaron Goillory, LSS Master Black Belt (FiberVisions)

The FiberVisions team has been traveling along a path of continuous improvement for several years. During this time, we have seen a transformation in the business lives of many. We don't look at things as we once did. This is reflected in the firm partnership relationships we have established with customers. When examining issues through the lenses of Lean Six Sigma, the objectivity by which we view the systems in which we operate has improved. There is an understanding that data must drive everything.

I am often presented with the question, "What exactly is Lean Six Sigma?" Some may say that it is a disciplined method of completing improvement projects. Others might say that it is a method of measuring the success of processes. There may be others that say it is a training program for leaders in the workplace to understand and utilize data-driven techniques. In their own way, these are all correct while at the same time they are not complete answers.

The truth is that Lean Six Sigma is a culture. It transforms the mindset of an organization. It is not a short-term endeavor. In the long term we want to create a high velocity group that can adapt to future obstacles. We want to drive out variation in our systems, relentlessly eliminate wasteful activities, and understand our customers' needs in a way that other suppliers can't. Every company today faces challenges and those who are the most skilled at meeting those challenges are going to be the leaders in the marketplace. The culture of Lean Six Sigma and its improvement techniques is how we best prepare ourselves for the future.

To generate an organization of continuous improvers who know how to use a data-driven approach takes commitment. Individuals need to practice the philosophy. This is why we invest into the belt system.

The belt levels used in FiberVisions are Yellow Belt, Green Belt, Black Belt and Master Black Belt. For the sake of brevity, Yellow Belts are project members. Green Belts are project owners who are mentored by Black Belts. Black Belts are skilled cross-functional project managers with very solid statistical skills who train and mentor Yellow Belts and Green Belts. Black Belts in turn are mentored by Master Black Belts. Master Black Belts are those who partner with upper management Champions to deploy the Lean Six Sigma culture. They work to advance the organization through constant gap analysis and improvement strategies.

Each belt level celebrates a person's progressive involvement in the culture and her/his personal achievement of meeting training and certification requirements. Individuals are at different phases of their journey when it comes to continuous improvement. The belt system simply allows them to grow at the pace that is best for them. It is this investment into the development of our people that is a key precept of the Lean Six Sigma culture. More about this in our next issue.





# The Truly Global Fiber Company



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Auriga Polymers, Inc.  
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Wellman International  
Ireland, France, Netherlands  
Trevira GmbH  
Germany

Indorama Polyester Industries  
Thailand  
PT Indorama Ventures Indonesia  
Indonesia



Household



Healthcare



Hygiene

## Other Applications:

- Automotive
- Agriculture, Horticulture
- Personal Care
- Construction
- Geotextiles
- Industrial
- Clothing, Footwear, Baggage

With the world as a market - and the consistency expectations from a brand - rapid, reliable, and cost efficient delivery of the same product and service around the globe is an imperative for market leadership. Indorama's unparalleled global manufacturing presence excels at meeting this multi-faceted demand. *Geography is now History.*

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