Creating Diversified Values

8 DECENT WORK AND ECONOMIC GROWTH
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
14 LIFE BELOW WATER
16 PEACE, JUSTICE AND STRONG INSTITUTIONS

2.1 Innovation Capacity

2.1.1 Far Eastern Group R&D Center

In 2001, FENC established Far Eastern Group R&D Center to develop new high value-added products, thereby maximizing competitive advantage and generating new corporate values. The aim of the Center is to transform FENC into a world-leading polyester and textile enterprise. (Please refer to Chapter 2.2 for more information about FENC's innovative products.)

◆ **R&D Teams**

Polyester Material	Fiber & Textile	New Material	Biotech & Energy
Polyester Packaging	Chemical Fibers	Polyester Feedstock	Bioenergy & Biomaterial
Polyester Film	Industrial Fiber	Advanced Fibers	Biomedical
Advanced Polyester	Textile & Finishing		

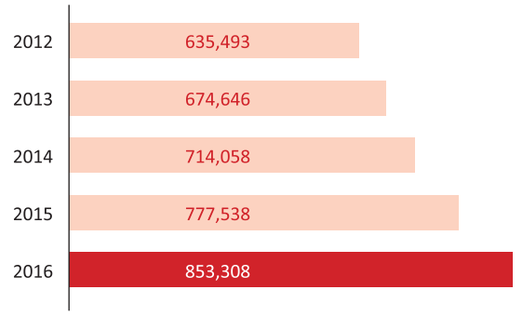
The Center consists of 4 Research Divisions and 10 Development Sections and houses 209 R&D experts. For the short term, we focus on polyester fibers, environmental protection, energy conservation and carbon reduction. By building upon the PET technologies that we have created over the years, we will strive to develop new technologies and products such as PET-based green materials, highly functional materials and smart textiles, and continue to expand the PET application scope in the high value-added industry. For the mid- and long-terms, we focus efforts on green energy, biomass and high-end fiber industry and develop green PET materials, energy-saving manufacturing process and new materials. Moreover, we will identify and expand into the most promising industry in the future in the hope of keeping the Company growing sustainably.

In addition to enhancing the competitiveness of our core products by supporting our businesses to add more value to our products and lower their costs, the Center is driven to develop new strategic materials and technologies, so as to maintain our competitive edge for the long term and ensure our corporate sustainability. To this end, the Company has been collaborating with leading research teams, forming strategic alliances with outstanding suppliers and manufacturers and developing strategic products with major brands. We have also applied for patents for our products and technologies to expand intellectual property portfolio and maintain competitiveness.

At the Center, the Innovation Marketing & Partnerships Office has integrated FENC's niche and innovative products from upstream to downstream and established the FE-X platform to provide total solutions and various modes of strategic partnerships for brand owners to consider. The Office is very active in participating in international conferences, exhibitions and competitions to raise the profile of our products.

Funds for R&D and Innovation

Unit: NT$1,000



Results of R&D and Innovation

No. of Patent Applications	No. of Approved Applications
382	220

Note: Statistics period from 2001 (inception of the R&D center) to 2016

Training for the R&D Team

In order to ensure that our R&D teams keep abreast of global trends, the Center has invited celebrated experts to provide training or exchange views on various topics, including functional textiles, specialty chemicals, medical supplies and nanotechnologies. In addition, our staff have been encouraged to attend seminars at home and abroad. Our training sessions and conferences focus not only on technology, but on sustainability-related topics, such as the latest trends in the industry and applicable laws and regulations. In this way, our R&D teams can be better equipped to incorporate sustainability into their work. Sustainability-related training and conferences:

- Low Carbon and Corporate Sustainability Conference
- Bio-based Furan Derivative Material and Technology Conference
- 2016 Annual Meeting of Association of Bio-based Material Industry and Industrial Exchange Seminar
- 2016 Green Materials and Interdisciplinary Applications International Conference
- Water Treatment Trends and Opportunities Conference
- Bio-based Material Labels and Certificates and Implementation Specifications Conference

The Center's Training Sessions and Turnout

Type of Training	2014		2015		2016	
	No. of Sessions	No. of Participants	No. of Sessions	No. of Participants	No. of Sessions	No. of Participants
Internal Training	4	115	17	543	14	482
External Training	47	74	77	169	66	111

In 2014, we restructured the Center by establishing new divisions and hiring more experts. In response to this change, numerous internal training sessions were held during 2015 and 2016 to upgrade the skills of our R&D teams. Our staff were also very active in partaking in external training, with increased attendance figures and training hours from the year before.

2.1.2 Collaborative Innovation

In the past, OEMs generally developed new products based on a brand owner's requirements. Today, FENC is proactive in introducing our new materials and technologies to brand customers and forming strategic alliances with them. The Company can guide them toward developing epoch-making products with new materials, thereby playing a decisive role in their product designs and creating a lucrative and distinctive niche for all parties involved. A number of world-famous beverage and sports brands have selected our new fibers and materials to design their groundbreaking products.

◆ Our Strategic Partners and Key Projects

Projects Completed During 2016

Partner	Project
Industrial Technology Research Institute	Chemical conversion technology of HMF to its derivatives
Taiwan Textile Federation	Intelligent health product design and development projects
National Chiao Tung University	X-ray diffraction analysis of the orientation parameter in the amorphous region of polyethylene terephthalate fibers
Yuanpei University of Medical Technology	Animal model study of injectable bone graft substitutes
Chang Gung University	Animal model study of collagen bone graft substitute
Jingding Engineering & Construction Co., Ltd.	Study for air line enlargement project

Ongoing Projects

Partner	Project
Industrial Technology Research Institute	Development of bio-polyester technology and product verification
Taiwan Textile Research Institute	Development of smart garment quality evaluation system and snoring detection pillow system
National Tsing Hua University	Intelligent pillow with radio identification module and algorithm development
Chung Yuan Christian University	Micro-structure identification for thin film and product optimization
Teh-Tzer Study Group for Human Medical Research Foundation	Industrial-Academic Collaboration - Clinical study of SavDerm® wound dressing and SavDerm® antimicrobial wound dressing for chronic wound
Zentan Technology Co., Ltd.	Taiwan Industrial Innovation Platform Program
Far Eastern Memorial Hospital	Sleep quality management research program for smart garment
Far Eastern Memorial Hospital	Clinical trials for HR smart garment
New Century InfoComm Tech Co., Ltd.	Health management platform maintenance and operation project
Jingding Engineering & Construction Co., Ltd.	Study for vapor recovery project

Yuan Ze University Think Tank Program

In 2016, the Far Eastern Group launched "Yuan Ze University Think Tank Program" to facilitate industrial innovation and upgrade with the assistance from the Academia. In this program, professors from Yuan Ze University were invited to our production and operational sites to provide guidance and insight, so our staff had the opportunities to know more about forward-looking technology and related research. Today, there are 11 ongoing joint projects on various topics, including employee satisfaction survey, big data analysis, green production and clean manufacturing process, noise prevention, smart textiles, etc.

Oriental Petrochemical (Shanghai) Corp. Lab Certified by the CNAS

The China National Accreditation Service for Conformity Assessment, or the CNAS, is a nationally recognized organization, approved and authorized by the Certification and Accreditation Administration of the People's Republic of China. Adhering to national and international standards, the CNAS has carried out on-site inspection and evaluation on Oriental Petrochemical (Shanghai) Corp. Lab and has certified that the lab meets the related requirements and standards and has the technology and management capabilities to administer certification, testing and verification. The organization received the certificate of recognition in June, 2016.

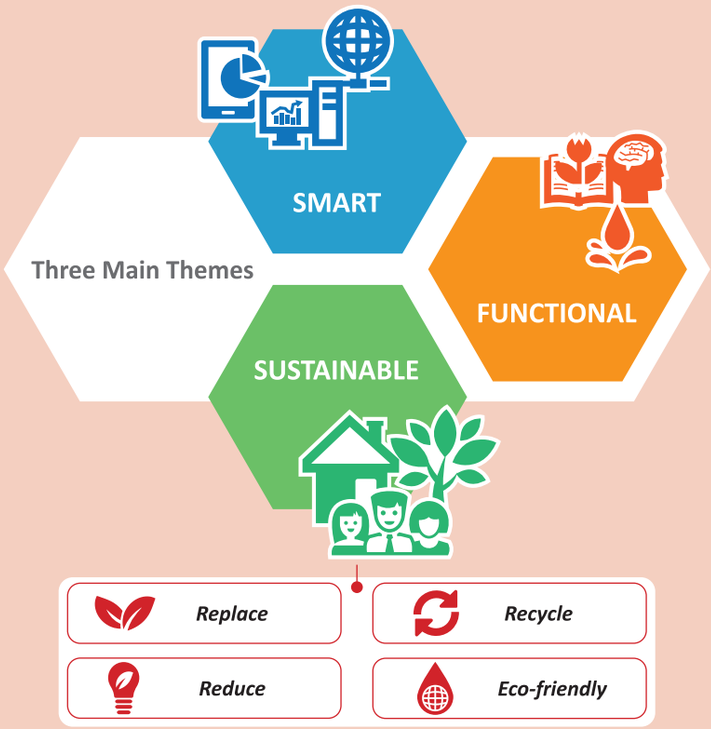
Established in accordance with the requirements of ISO 17025 Laboratory Quality Management System, Oriental Petrochemical (Shanghai) Lab has utilized the laboratory information management system (LIMS) to ensure the collection, transfer, testing and reservation of samples are properly tracked and managed.

After the recognition by the CNAS, the products tested by Oriental Petrochemical (Shanghai) Lab can use the mark of the CNAS or the ILAC-MRA to avoid re-testing by the customs, thereby saving time for clearance and related charges. In addition, the company of the products can be included in the accreditation list of the Certification and Accreditation Administration of the People's Republic of China and China National Accreditation Service for Conformity Assessment. This can help a company earn the trust of its client and raise its profile as well.

2.2 Innovative Products

Far Eastern New Century (FENC) has interdisciplinary R&D team and high-degree vertical integration of value chain. Powerful R&D energy and manufacturing capacity allow us to become the main supplier for major international brands. Our development objective is to facilitate sustainable development for our society, responding to the UN's SDGs through innovative products. Utilizing our core competencies, we continue to innovate and lead human life into a smarter, greener, and more functional new age.

Introduction to FENC's Products



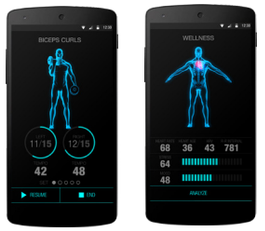
2.2.1 SMART

- **DynaFeed™ Smart Garment**

By combining advanced biosensor materials and technology solutions, FENC launches the DynaFeed™ Smart Garment, which uses no traditional metal fiber to avoid issues of oxidation and discoloration, while at the same time making the product more water-friendly, anti-erosive, and wash durable. Through non-invasive means, DynaFeed™ connects user to the digital world; by precisely measuring the user's heartbeat and movement, DynaFeed™ timely presents the biosignal to the user through clear and simple interface, allowing the user to learn the quality and effect of his or her training and exercise. This innovative product was the 2016/17 Gold winner at ISPO Munich, the world's largest trade fair for sporting goods and sportswear.

Smarter New Generation DynaFeed™

The new generation of DynaFeed™ features high-end smart technology, providing integrated training analysis interface to further integrate multi-point sensors; combined with training performance analysis software, it can provide users more precise feedback and analysis on training results. Furthermore, in addition to number of times of exercising, the latest DynaFeed™ can also measure the angle of joints during exercising to assess the extent to which the muscles are stretched, providing users more biosignals to enhance the effect and quality of routine training. Major international sports, outdoor, health and fitness brands have introduced the innovative solution of DynaFeed™ to pilot projects.



• **Automated Manufacturing of Garment**

Due to complicated styles and soft fabrics of garment products, there has not been automated sewing facility that can replace manpower. In light of this, FENC devises the "Smart Factory 5-Year Plan," to first research and develop automated production facilities on its own, and second, establish automated production line by combining autonomous carriers and robotic arms. The goal is to achieve smart garment-factory of preliminary scale by 2019.

In 2016, Far Eastern Apparel (Suzhou) successfully developed six automated equipment and applied for 30 patents, among which 6 have been approved. Using the automated placket sewing machine developed by Far Eastern Apparel (Suzhou) as an example, the procedure originally required five steps, and a total of 68 seconds; through this machine, the automated procedure completes all five steps continuously and requires only 4 seconds, greatly enhancing production competitiveness.

2.2.2 FUNCTIONAL

• **High Polymer Waterproof Woven Fabric**

Waterproof rolling materials are mainly used for building walls and roofs, or roads; there are asphalt and high polymer waterproof rolling materials. Asphalt is highly polluting, and therefore the Chinese government promotes high polymer waterproof rolling materials. Currently in the market, high polymer waterproof meshes are mainly made of warp-knitted fabric. Oriental Industries (Suzhou) has developed a waterproof woven fabric, becoming the first company in China to have successfully developed high polymer waterproof woven fabric. The design and functionality of the product are both more superior to the traditional warp-knitted fabrics, and has high-end applications, successfully introducing industrial fabrics to the field of architecture.

• **Hycare® Hygiene & Medical Materials**

FENC's polyester staple fiber can be processed and made into non-woven fabric; through product improvement and production process optimization, the material has met the requirements for hygiene management and quality stability, and can replace resin and be widely used for healthcare and medical products, such as baby diapers, adult diapers, sanitary napkin, wet paper towel, mask, cosmetic mask, and air filter, providing people new options for more convenience in life.

2.2.3 SUSTAINABLE

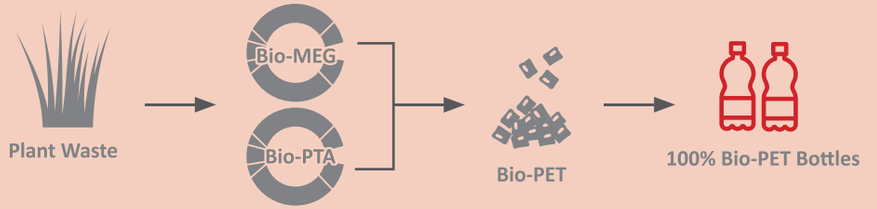
As major international brands are now promoting environmental protection and circular economy, FENC continues to invest resources to research and develop visionary and sustainable green products, provide green solutions for circular recycling, reduction of energy and resources consumption, create new corporate values, and enhance capability of sustainable operation, allowing FENC to play a vital role in the wave of sustainability.

Replace

• **100% Bio-PET Bottles**

Polyester consists of 70% PTA (Terephthalic Acid) and 30% MEG (Monoethylene Glycol). After years of R&D, the Bio-MEG production technology that uses bio-based materials has matured and become economically affordable. FENC is one of the few leading suppliers of 30% Bio-PET in the world. Now, we have overcome the last mile challenge of the remaining 70% and succeeded in developing 100% Bio-PET.

Based on its polyester synthesis technology accumulated over the past 30 years, FENC strives for decreasing the reliance of polyester on petroleum materials. Working with Coca Cola, FENC has developed the world's first 100% Bio-PET bottle. In the future, raw materials for PET bottles can all be extracted from plants. FENC is the first company in the world to achieve such a remarkable feat.

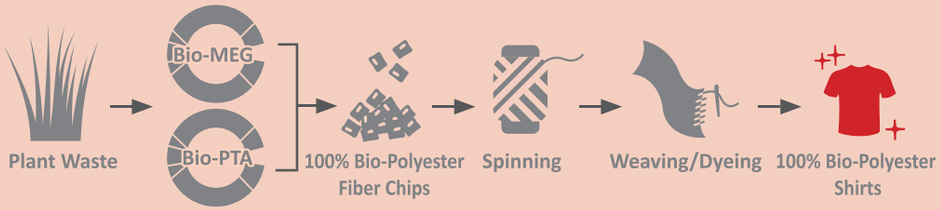


• 100% Bio-Polyester Shirts

FENC successfully manufactured the world's first 100% Bio-PET shirts in 2016. All raw materials of the 100% Bio-PET shirts were extracted from plants. FENC's R&D team and famous American company Virent joined forces to first utilize the company's BioFormPX® Paraxylene to make 100% Bio-PTA, and then synthesize it with 100% Bio-MEG to produce 100% Bio-polyester fiber chip. Technical bottlenecks of each processing procedure, such as spinning, weaving, as well as dyeing and finishing, were gradually overcame by FENC and its affiliated companies.

Although 100% Bio-polyester shirts are made of plants, it has the same properties as polyester made from petroleum; therefore, the production process is consistent and compatible with the original processes using petroleum materials, giving it a wide range of commercial applications, while also reducing CO_2 emissions and reliance on petroleum. These allow people to enjoy convenient life and simultaneously reduce the burden on the environment, fulfilling our responsibilities as citizens of the Earth.

The 100% Bio-polyester shirt has won the recognition of the 13th National Innovation Award, and was one of the five finalists of the Bioplastics MAGAZINE's Bioplastics Award in Europe.



Recycle

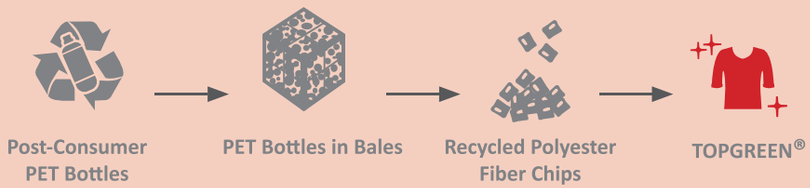
• Pro-green® Recycled PET

FENC is the first company that embraces bottle-to-bottle recycling technology in Taiwan, replacing petrochemical materials that are commonly used in the traditional manufacturing process with recycled PET bottles. In order to ensure our quality meets the strictest food safety standards, strict quality controls are always implemented in the whole production process before new PET bottles are blow molded and filled. FENC now proudly holds food safety certifications from FDA (U.S.), CFIA (Canada), and EFSA (EU), and continues to be a long-term partner to the world's major beverage brands. Compared with food-grade PET made from traditional petrochemical materials, Recycled PET can reduce carbon emissions by 50%.

Food-grade rPET, is made into brand new clean PET bottles after blow molding. It not only reduces impact on the environment, but also realizes environmental protection concept of bottle to bottle, and zero raw material recycling.

• TOPGREEN® Recycled Polyester Fiber

FENC uses recycled PET bottles as raw material in place of petroleum material to make polyester fiber, decreasing reliance on petroleum, while also reducing consumption of resources and promoting resources recycling and renewal. TOPGREEN® is also the designated material for national jerseys sponsored by Nike at World Cup 2010 and 2014.



Eco-friendly Yarn Made of Ocean Plastics—Creating New Values for Wastes

Disposed plastics have become a major problem for maritime ecology. To realize FENC's green commitments, and safeguard maritime ecology, the company supports and helps partners with core competencies to recycle and reproduce disposed PET bottles from oceans into eco-friendly yarn.

Reproducing recycled PET bottles into such eco-friendly yarn has two major challenges. First, island nations have no experience on classifying disposed PET bottles. Recycling process of disposed PET bottles is messy and unorganized. FENC thus helps maritime environmental protection NGO Parley for the Oceans to establish demonstrative recycling system in Maldives, recycling disposed PET bottles in the ocean, classify and standardize the procedures, and utilize bottle-brick packaging equipment to compress classified PET bottles into bricks, increasing the cargo capacity of bottle-bricks from 8 tons to 20 tons and significantly reducing transportation cost.

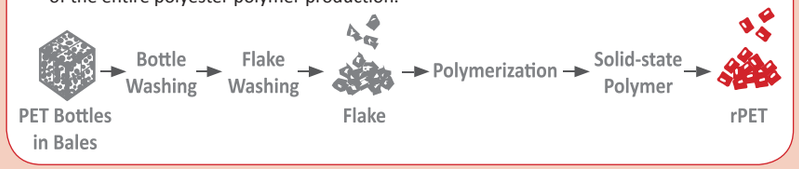
On the other hand, these recycled PET bottles from the ocean have more impurities; FENC uses purification technology to refine recycled polyester to enhance the strength of the eco-friendly yarn, ensuring that the yarn meets strength requirements for making apparel and shoes.

In 2016, Adidas and Parley collaboratively launched the limited edition running shoes as well as jerseys of two major football clubs, Real Madrid of Spain and Bayern Munich of Germany, all made from FENC's eco-friendly yarn. All products were sold out shortly after, and attracted attention from media around the world.

Manufacturing this type of yarn requires integration of upstream and downstream resources. FENC embraces such challenge and is currently the sole supplier of Adidas' eco-friendly yarn. We are also happy to see that more and more partners are aware of and concerned with this issue, striving for leaving behind clean oceans to future generations.

rPET Manufacturing Procedure Optimization—Driving Circular Economy

FENC is the world-leading recycled PET resin producer; to sustain its status as the world leader, FENC not only expands production capacity, but also continues to refine rPET manufacturing process, using grinding machine to replace manpower for bottle and flake washing, and adjusting the procedure to reduce water consumption (refer to "Chapter 3.5 Green Production Process" for related information on water-saving manufacturing process for rPET).The polymerization and solid-state polymer procedures are designed to input high quality flakes into the fake-to-resin process, in order to improve quality and reduce energy consumption. In addition, we have developed tracers and added them to the recycled PET resins to ensure better traceability for the customers. The next step for FENC is to introduce Industry 4.0, and smart management the manufacturing process from raw materials to finished products. Looking ahead, FENC's long-term goal is to increase the ratio of rPET to 20% of the entire polyester polymer production.



- **TOPGREEN® Recycled Spun Yarn**

TOPGREEN® Recycled Polyester Fiber produced by FENC is used as the raw material, which is mixed with natural cotton at percentages specified by clients to produce the TopGreen® Recycled Spun Yarn that can be used in all kinds of textile products. The sales volume in 2016 grew by 72% compared to 2015, and it has become the main eco-friendly product of the Spinning Department.

- **FEFC® Eco Nylon 66 Recycled Yarn**

Far Eastern Fibertech has actively conducted R&D of eco-friendly recycled fiber since 2014 in response to the trends of sustainable development and guidelines for carbon reduction and energy conservation. Waste yarn and block scrap from the production process are recycled, organized, fused, filtered, and re-polymerized, reproducing into nylon chips for spinning. This recycling and renewing process can skip the polymerization, and thus reduces 70% energy consumption and carbon emissions, generating environmental benefits for carbon reduction and energy conservation.

Reduce

• New Dyeable CDPET

Compared to normal CDPET that can only be dyed under high pressure and at high temperature, FENC has developed the "New Dyeable CDPET" that can be dyed under normal pressure, and requires only 98°C for dyeing, which is 22°C lower than the 120°C needed for normal CEPET. This not only significantly reduces energy consumption and carbon emissions through the manufacturing process, but also enables deep coloring and high color fastness. The material can be combined with heat-sensitive materials (such as: cotton, wool, rayon, or nylon) to develop two-tone fabric that can be used for leisure wear and outdoor sports garments.

• Fast Reheat and Energy-saving PET Resins

FIR absorber is added during the process of polymerization to produce the energy-saving PET resin, so when downstream clients carry out blow molding, the material can more efficiently absorb the FIR heat from quartz heating lamp, enhancing efficiency by 20 to 30%. Fast Reheat and Energy-saving PET Resin is one of FENC's main products, and recently, the company has also targeted the Asian market to develop a transparent and colorless version, joining forces with downstream clients to achieve value chain energy conservation and carbon reduction.

• Lightweight Preforms

Production stability of blow molding process is enhanced through adjusting the procedures and materials. Maintaining the quality of final products, the thickness of preform is significantly reduced not only to reduce consumption of raw materials, but also to decrease the weight. The weights of different preforms of different containers are reduced by 10% to 20%, and therefore achieve environmental benefits of reducing resources consumption and carbon emissions during transportation and product lifecycle.

Eco-friendly

• Zero Solvent Coating & Lamination

Knitted fabric requires various steps of post-processing in order to have various functions; however, traditional processing not only consumes energy, water is another major issue. FENC has developed environmental-friendly knitted fabric coating and lamination process. This innovative process is more simplified compared to the traditional one, requiring no water and solvent, and will not emit any VOC. This process can be used for processing of windproof, waterproof, breathable, and anti-pill knitted fabrics, giving the products high wash durability, soft touch, and high-quality stability.

• PET Shrinkable Film

Traditional bottle labels were mostly made of PVC. However, when incinerated, PVC produces dioxin, which has negative impact on the environment and human health. FENC has developed the shrinkable PET film to replace traditional PVC film. When PET film is used for bottle label, it can be recycled together with the bottles, saving the procedure of separating the film. This not only saves recycling cost, but also reduces pollution.

FENC began mass-producing PET Shrinkable Film in 2010, and currently has a market share of over 80% in Taiwan's bottle labeling market. In 2016, FENC launched shrinkable films made of recycled PET bottles to create circular economic value.

Sales Performance of Green Sustainable Products

◆ **Revenue and Share of Green Sustainable Products**

2015	2016
NT$21.76billion	NT$21.79billion
25%	25%

Certifications of Green Sustainable Products

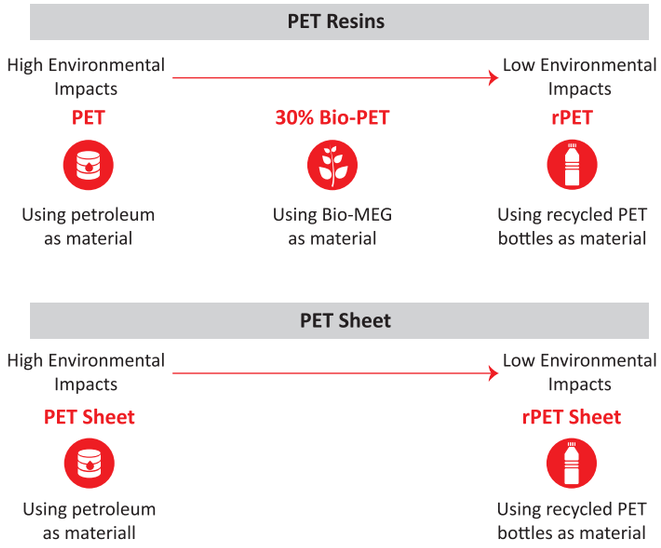
Many of FENC's green eco-friendly products have attained high-level green product certifications. The current certifications are listed below, and will be regularly updated to ensure all products are consistent with all regulations and standards.

Certifications		Products
Global Recycled Standard	Global Recycle Standard, GRS Version 3.0	• 100% Recycled Post-Consumer Polyester Chips • 100% Recycled Post-Consumer Polyester POY, FDY, DTY • 100% Recycled Post-Consumer Polyester Staple Fiber • Contains Minimum 50% Recycled Post-Consumer Polyester Fabrics • Contains Minimum 20% Recycled Post-Consumer Polyester Combed Cotton Yarn
CERTIFIED RECYCLED CONTENT	SCS Recycled Content Certification Version 7.0	• 30%, 50%, 70% Post-Consumer Recycled PET Content Sheet • 100% Post-Consumer Recycled PET Content POY, DTY • 100% Post-Consumer Recycled PET Content Chips • Minimum 50% Post-Consumer Recycled PET Content TPEE Film
Recycled Material Verified TÜVRheinland CERTIFIED	TÜV Rheinland Recycled Material Verified	• Contains Minimum 90% of Pre-Consumer Recycled Nylon Yarn
	Taiwan Green Mark	• 100% Recycled Polyester Filament • 100% Recycled Polyester Fiber

Certifications		Products
bluesign	bluesign® standard	• Knits for Outdoor and Sportswear
CONFIDENCE IN TEXTILES Tested for harmful substances according to Oeko-Tex® Standard 100 + Oeko-Tex® Standard 1000	OEKO-TEX® Standard 100 Confidence in Textiles Tested for Harmful Substances	• Filament Yarn Made of 100% Polyester (POY, DTY, HDI) • 100% Polyester Recycled Filament Yarn (POY, DTY) • Nylon 66 Yarn • Polyester Staple Fiber • 100% Polyester Recycled Staple Fiber • Bi-Component Bonding Fiber PE/PET Bi-Component Staple Fiber Nylon/PET Bi-Component Micro Fiber • PLA Fiber • 100% Tencel/Modal/Viscose Combed Yarn • 100% Polyester/Recycled Polyester Blended Yarn
GLOBAL ORGANIC TEXTILE STANDARD	Global Organic Textile Standard, GOTS-NL Version 4.0	• 100% Organic Combed Cotton Yarn • Contains Minimum 70% Organic Combed Cotton Yarn
ORGANIC 100 content standard	Organic Content Standard (OCS) Version 2.0 Organic Content Standard 100 (100% Organic Cotton)	• 100% Organic Combed Cotton Yarn
ORGANIC BLENDED content standard	Organic Content Standard (OCS) Version 2.0 Organic Content Standard Blended (Partial Organic Cotton Content)	• Contains 5% Organic Combed Cotton Yarn • Contains 95% Organic Combed Cotton Yarn • Contains 5%-95% Organic Combed Cotton Yarn
BCI Better Cotton Initiative	BCI (Better Cotton Initiative)	• 100% BCI Combed Cotton Yarn • Contains BCI Combed Cotton Yarn • Contains BCI Cotton Fabrics

Life Cycle Assessment—Recognizing Environmental Impacts

To further disclose the environmental data throughout the product lifecycle, FENC carried out cradle to gate life cycle assessment on 8 products, studying the raw materials needed, energy and resources invested, and pollutants discharged, systematically quantifying potential environmental impacts, in 2016. Three of PET resins and two PET sheets have received ISO14040:2006 and ISO140144:2006 external statements from a third-party certification agent (TÜV Rheinland). According to the findings, rPET products and Bio-PET products have relatively less environmental impacts, and this will help the promotion and retailing of our green products.



Green Sheet—The only PET Sheet Manufacturer in the World to Attain SCS Certification

To further promote green image, major international brands have shifted attention to properties of packaging materials in recent years. However, some companies falsely claim low-priced post-industrial recycled materials as PCR (post-consumer recycled) eco-friendly PET sheet, resulting in a crisis in the "green packaging market."

Scientific Certification Systems (SCS) is one of the most trusted certification agencies in the world. Hsinpu Chemical Fiber Plant 's PET sheet manufacturing unit has passed the audit and certification of SCS, becoming the world's first and the only one PET sheet manufacturer to obtain this international green certification. Upon receiving the certification, FENC has gained recognition of major toy manufacturers Mattel and Hasbro, and established business ties, doing our best to promote green products in the market.

BCI (Better Cotton Initiative) Cotton Yarn Sales Growth

In 2016, FENC's BCI cotton yarn sales volume achieved an annual growth rate of 260%. FENC supports quality cotton through concrete action, purchasing BCI cotton to encourage and support environmental friendly cotton cultivation, including reasonable use of fertilizers and pesticides, reduction of impact to soil, and effective utilization of water resources as well as enhanced protection of labor rights.

FENC pursues balanced environmental and economic development; in addition to developing various green products and obtaining green certificates, FENC also actively participates in green initiatives, such as ZDHC (Zero Discharge of Hazardous Chemicals), to assist our clients (Nike, adidas, Puma, Columbia, H&M, New Balance, and Li Ning) to achieve the goal of zero discharge of hazardous chemicals by 2020; Far Eastern Dyeing and Finishing (Suzhou) also participates in Solidaridad Foundation's "Better Mill Initiative (BMI)" launched in China as well as the Natural Resources Defense Council's Clean by Design Project, continuing to march towards the goals of clean production.

2.2.4 Innovative R&D Awards and Achievements

2016 Taiwan Corporate Sustainability Awards—Growth Through Innovation Awards

FENC won the "2016 TCSA—Growth Through Innovation Awards" with the "Smart Garment Application in Remote Healthcare Project." The award recognizes corporates that concretely integrate innovations with products. "Smart Garment Application in Remote Healthcare Project" combines Taiwan's advantageous industries—textile, ICT, and medical care—and is expected to blaze a new direction for Taiwan's healthcare industry.

2016 Asia Responsible Entrepreneurship Awards—Green Leadership

In 2015, FENC joined forces with Coca-Cola to launch the world's first 100% Bio-PET bottle, setting a new milestone for global environmental protection and carbon reduction. This project also won the honor of 2016 AREA-Green Leadership. The award is hosted by Enterprise Asia.

The 13th National Innovation Awards

FENC won the "13th National Innovation Award-Corporate Innovation Award" held by "Institute for Biotechnology and Medicine Industry (IBMI) with 100% Bio-PET. FENC's 100% Bio-Polyester Shirt and 100% Bio-PET bottle were recognized as being highly innovative world-leading products in the category after three stages of evaluation, and were regarded to have great significance in promotion of Taiwan's R&D capacity and green sustainable development.

Bioplastics Award 2016—Top 5 Finalists

BioPlastics Award is held by Europe's most authoritative bioplastics MAGAZINE, recognizing the year's most iconic bioplastic product. The prizes will be awarded at the European Bioplastics Conference held annually by European Bioplastics (EUBP).

FENC entered the contest for "Bioplastics Award 2016" with 100% Bio-Polyester Shirt, and was selected to the top five finalists along with major international players including BASF and Corbion.

Shanghai City Outstanding Green Packaging

Far Eastern Industries (Shanghai) participated in the evaluation of "Shanghai Green Packaging" with bottle-grade PET resin. The criteria for the contest include raw material, production process, packaging and transportation, and clean production…etc. After preliminary review by Green Packaging Committee of Shanghai, and professional jury review, as well as on-site review and online public disclosure, bottle-grade PET resin was successfully selected as "2016 Shanghai City Outstanding Green Packaging." This helped to establish the company's green corporate image, while also serving as a guarantee for the green eco-friendly products provided to downstream clients.

FE industry+ Platform Honored with 2016 ITGM Award—Organization of the Year Award

FENC's Shanghai IT team designed and developed the Industry 4.0 platform, FE industry+, in accordance to own industrial characteristics to help FENC develop industry 4.0, winning the 12th Future-S IT Governance and Management Award—Organization of the Year Award in 2016.

FE industry+ platform innovates applications of matured technologies, including IoT, mobile network, big data, and cloud computing; current functions include:

- Mobile Industry Billboard
- IoT Big Data Monitoring
- Project Management
- Mobile Business Information App
- Mobile Production and Distribution App
- Mobile Quality Control
- Mobile Inspection

After coming online, the FE industry+ platform continues to develop industry application platforms through integration of company resources and experience. This platform is expected to shorten the time it takes for information system to be launched online in the future. The IT team will continue to improve the platform and make it more automated and smarter, as well as exploring new applications.

2.3 Customer Relationship Management

FENC has customers all over the world. In order to satisfy their demand, we have capitalized on our research and development and shared information about our product development with our brand customers. Our vertical integration of production process from upstream to downstream can create additional value, which is an incentive for customers to collaborate with us. In order to improve our services, we have introduced one-stop shopping and shortened the time required for production, thereby providing products and services more efficiently.

The Company values the feedback from our customers. We conduct customer satisfaction survey periodically to examine if our products and services have met their expectation, and convene review meetings to discuss various plans to make improvement. The survey is developed and carried out by each business. Every year, we send questionnaires to our customers a couple of times or engage with them by phone or email to maintain a close rapport.

Quality Gaurantee System Optimization

FENC satisfies customers' demand with forward-looking technology and rigorous quality control. In order to increase yield rate, boost work efficiency, bring down management costs, FENC, Far Eastern Apparel (Suzhou) and Far Eastern Apparel (Vietnam) introduced Quality Guarantee System in 2016. This system can perform real-time control, organize data, automatically generate testing results, and allow customers to inquire about the production resume. It not only increases management efficiency, but reduces the demand for human resources and strengthens quality control.

In March, 2016, Hsinpu Chemical Fiber Plant held Quality Guarantee System Achievement Workshop for representatives from Filament Yarn and Staple Fiber SBUs to exchange views on quality improvement, manufacturing control, projects of the CIT (Continuous Improvement Team). The event also awarded prizes to the top three projects based on the evaluation scores. A total of 653 people attended the event and participation rate was 95%. The CIT is expected to reduce production cost and product variation through effective teamwork.

Recognition from Customers

For years, FENC has been the major supplier of many international brands which are leading companies in the area of CSR. They have required us to fulfill our social responsibilities concerning labor conditions, human rights, occupational safety and health, environment, innovation, training as well as management and auditing of suppliers, with standards higher than international of industrial regulations. Our customers are satisfied with our overall performance and have given us high scores in various supplier evaluations.

Far Eastern Dyeing & Finishing (Suzhou) Recognized for Sustainability and Innovation

H&M is the global fast fashion brand with the second highest capitalization among all fashion brands in the world, according to Interbrand 2016. The brand values a supplier's sustainability and innovation, so it established Conscious Foundation to promote supply chain sustainability and initiated the Global Change Award to encourage the development of innovative and groundbreaking environmental concepts. These endeavors are aimed at using innovation to protect the environment and reducing the industry's environmental impact.

As one of H&M's suppliers, Far Eastern Dyeing & Finishing (Suzhou) ranks among the top according the Higg Index, an industry standard for assessing environmental and social sustainability throughout the supply chain, developed by the Sustainable Apparel Coalition. The assessment looks at energy consumption, GHG management, water management, wastewater management, emission of air pollutants, waste management and chemical management. H&M has carried out inspection on our plants to assess our efforts and achievements in innovation and sustainability. On April 11, 2016, H&M led its Global Change Award winners to visit Far Eastern Dyeing & Finishing (Suzhou) and learn from our experience in innovation and sustainability and the company shared its recent efforts, achievements, obstacles and objectives, which include increasing energy efficiency and water reclamation rate, using biomass as a source of raw materials, innovating green products and improving manufacturing process.

FENC Received Sustainability Award from Adidas

In 2014, Adidas Group launched its project to produce yarns using reclaimed and recycled materials from ocean plastic waste. In September, 2015, FENC began to contact Adidas and Parley for the Oceans for collaboration. After numerous meetings, on-site visits and occasions to check product samples, FENC became Adidas's one and only supplier in the project to produce yarns from ocean plastic waste. In September 27th, 2016, Adidas presented Sustainability Award to FENC to recognize our contribution to this project and our achievement in mobilizing all the resources, overcoming technical bottlenecks and commercializing the products within a short amount of time.

Far Eastern Industrial (Suzhou) Received the Award of Best Supplier in China from BIG

Coca-Cola Bottling Investments Group China, or BIG, is a bottling company established by Coca Cola in China. Since 2012, Far Eastern Industrial (Suzhou) has partnered with BIG to develop BIG's new products and perform rigorous control during production and transportation to ensure consistent quality. In addition, in order to maintain customer relationships, it has visited customers to gain more information about their procurement, sales and manufacturing process. When Coca-Cola carried out its supplier assessment according to its Supplier Guiding Principle, Far Eastern Industrial (Suzhou) was rated as green level with no points deducted for two consecutive years and given the immunity from assessment for three years. The company's excellent performance earned itself the Award of Best Supplier in China in the BIG's 10 anniversary in 2016.

2.4 Supply Chain Sustainability

At FENC, there are five major procurement units, namely, FEG Purchasing Department, the Purchasing Department of Oriental Petrochemical (Taiwan) Co., Shanghai Purchasing Unit, Suzhou Purchasing Unit and Raw Material Team. The Raw Material Team conducts market analyses of key materials such as cotton, PTA and MEG, formulates strategic plans and purchases materials. Other purchases such as machinery and equipment, as well as contract awarding are handled by the other four procurement units.

Supplier Management Policies

In order to address stakeholders' concerns and raise the CSR standards comprehensively for our suppliers, FENC began to require suppliers to sign and comply with Supplier CSR Commitment Statement, which is one of the criteria for us to select suppliers, in the fourth quarter of 2016. The purchasing units also set individual assessment criteria for different cases and include related clauses in the contract to ensure compliance, e.g. having ISO qualification. In 2016, the Department of Environmental Protection, Taipei City Government, conducted an assessment on green procurement and the FEG Purchasing Department was recognized as an enterprise with excellent performance in this regard.

Supplier CSR Commitment Statement

In 2016, FENC introduced the Supplier CSR Commitment Statement and required our suppliers to sign it, as a means to strengthen supply chain sustainability, and ensure suppliers meet social and ethical standards when they provide products and services, understand and comply with laws and regulations, take an active role in addressing environmental and social issues, undertake social responsibilities and make constant improvement.

The Statement, provided in traditional Chinese, simplified Chinese and English, covers labor and human rights, health and safety, environment and ethics and provides various ways to report misconduct or violations. Since November 2016, all FENC suppliers have been required to sign and submit it to better ensure sustainable development of all parties involved.

Supplier CSR Commitment Statement

◆ **Supplier Selection and Management Principles**

Procurement Unit	Selection and Management Principles
FEG Purchasing Department and Raw Material Team	• All new suppliers are required to sign the Supplier CSR Commitment Statement, which is included in the contract as an attachment, to ensure the compliance of contracting suppliers. The 2,300 plus suppliers that we signed a contract over the past three years are also required to sign the statement in phases. We expect 60% of them to sign the statement by the end of 2017 and the rest by the end 2018. • To meet the demand of customers, the Raw Material Team works with international suppliers to introduce organic cotton, BCI cotton and Bio-MEG and visits suppliers regularly every year.
Purchasing Department of Oriental Petrochemical (Taiwan) Co., Ltd.	• All new suppliers are assessed and required to sign the Supplier CSR Commitment Statement. • There are additional assessment aspects and requirements for specific suppliers. For example, environmental impact assessment is conducted on suppliers of microchemicals and industrial gases. Labor practice assessment is conducted on construction and maintenance service suppliers. • We have Supplier Environmental Impact Evaluation, which checks if the supplier has an environmental management system in place and assesses the environmental impact of its main products and production activities.
Shanghai Purchasing Unit	• All new suppliers in the country are required to sign the Supplier CSR Commitment Statement. • Manufacturer Evaluation Guidelines have been adopted and each manufacturer is rated as A, B or C based on its score.
Suzhou Purchasing Unit	• Suppliers with over-one-year contracts and new suppliers that provide larger amount of goods are assessed and required to sign the Supplier CSR Commitment Statement. • The Unit always first considers the suppliers that have ISO14001, OHSAS 18001 and other certifications to work with, based on its procurement management program and has established annual evaluation mechanisms. The KPI of the Unit includes the number of visits to the suppliers and their annual evaluation scores. The target is to visit at least 50 suppliers and 85% of the suppliers should score higher than 85 points in evaluation.

The table below describes the four aspects of supplier assessment, which are environment, labor practice, human rights and society.

Assessment Aspect	Environment	Labor Practice	Human Rights	Society
Total number of selected suppliers	2,651	2,730	2,641	1,836
Number of suppliers that have or may have negative impact	0	0	0	0
Number of suppliers that have made improvement	0	0	0	0
Number of supplier that we have stopped working with	0	0	0	0

Note:

1.Environmental assessment criteria include pollution prevention, waste disposal and energy consumption. Labor practice assessment takes into account occupational safety and equality as well as employee training. Human rights assessment deals with child labor, forced labor and rights of the indigenous people. Society assessment covers corruption, monopoly and fraud.

2.FEG Purchasing Department, Raw Material Team and Shanghai Purchasing Unit carries out assessment on local suppliers. Purchasing Department of Oriental Petrochemical (Taiwan) Co., Ltd conducts environmental assessment on suppliers of microchemicals and industrial gases and labor practice assessment on suppliers of , while Suzhou Purchasing Unit conducts assessment on construction and maintenance service suppliers with over-one-year contract and new suppliers that provide larger amount of goods.

If a major impact is identified during assessment, suppliers are expected to make improvement; otherwise, our collaboration will be terminated. In 2016, no negative impact on the environment, labor, human rights or society was found.

In 2016, there were 1,007 new suppliers, 796 of which or around 79% were assessed, 10 percentage points higher than the year before.

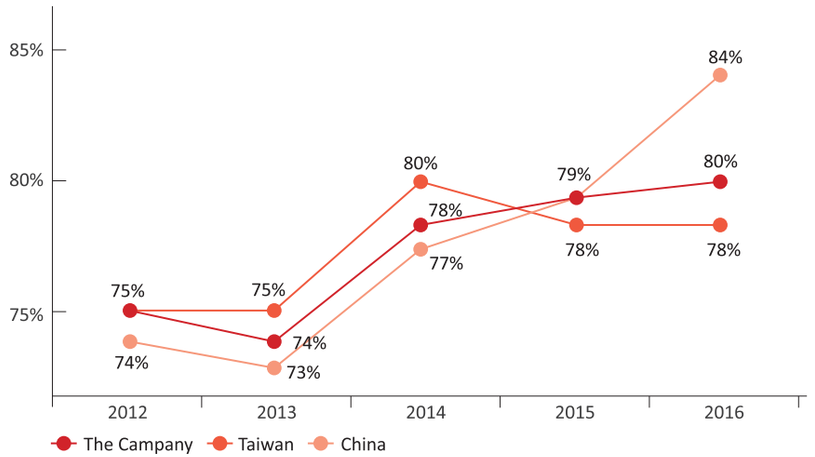
Selecting Toxin-free Printing Paste Suppliers

In order to pursue sustainability with our supply chain, we have required textile printing manufacturers to use non-toxic, eco-friendly printing paste and disclose the sources of their paste. The Company can use this information as a criterion to select suppliers and ensure our products do no harm to the environment.

Giving Priority to Local Suppliers

FENC considers working with local suppliers first in order to boost local economy and obtain satisfactory after-sale service.

The Percentage of Purchases from Local Suppliers



Note:

1. While the local suppliers to our Taiwan's businesses are located in Taiwan, the local suppliers to our businesses in China refer to those located in the province where our business is located.
2. The procurement of PX is not included.

Supplier Engagement

FENC places great emphasis on the communication with suppliers. By holding periodic meetings and using various forms of communication, we can oversee the behavior of our suppliers and stay on top of all the movements. FEG Procurement Unit attends the industrial safety review meeting with the plants and suppliers each quarter to discuss the identified issues and methods to make improvement. In addition, there is a designated email on the Company's website for suppliers to submit their feedback. Oriental Petrochemical (Taiwan) Co., Ltd. convenes meetings with its partners every month, while Suzhou Purchasing Unit organizes supplier meetings every six months and invites manufacturers to exchange views on technology on an ad hoc basis.

For supplier training measures and performance, please refer to Chapter 4.5.2 Contractor Safety and Health Management and Chapter 6.1.2 Construction Contractor Management.