

TITAS 2022 Makes a Grand Comeback Powered by Innovation and Sustainability

Under the auspices of the Bureau of Foreign Trade (BOFT), Ministry of Economic Affairs and organized by the Taiwan Textile Federation (TTF), TITAS 2022 welcomed with great pleasure and excitement its exhibitors and visitors at the Taipei Nangang Exhibition Center Hall 1 on October 12, after two years of border restrictions due to the pandemic.

TTF Chairman Wen-Yuan Wong, along with TTF Honorary Chairman Chairmen Douglas T. Hsu and Cheng-Tien Chan, joined by representatives from textile industry and associations, celebrated together the opening of the Exhibition to show their support to this important event of the industry.

Chairman Wong said that, despite a very difficult global economic environment, compared to the last physical TITAS show before Covid-19 with 356 exhibitors in 2020, the scale of the 2022 edition boasts more than 370 exhibitors occupying 900 booths and over 40 international brands participating in online and offline trade activities, implying potential business rebound and growth for the Taiwan textile industry.

A feature of this year's TITAS is that the BOFT's "EXPO-TECH Pilot

Project for Digital Exhibitions", which involves the combination of various digital technologies to create a digital, networking, intelligent and sustainable exhibition format, was incorporated at TITAS 2022 to give visitors better on-site experience of the Show and to enhance visitor-exhibitor online interactions.

In addition, the Ministry of Culture invited seven leading textile companies including Formosa Taffeta, Far Eastern New Century, New Wide, Yi Shin, Zig Sheng, Li Peng and Everest cooperated with fashion brands including DYCTeam, SYZGY, oqLiq, PCES, Weavism and UJIN to create a "Sustainable Fashion Show" demonstrating the joint force of Taiwan's fashion creativity and sustainable textiles.

In line with global textile trends, exhibits at TITAS 2022 revolve around five core themes: Sustainability, Functional Applications, Personal Protection Equipment, Smart Textiles and Intelligent Manufacturing. Global warming is affecting our daily life now, sustainable development is therefore becoming the core value and mission priority for Taiwanese textile enterprises.

TITAS also held a number of forum

and seminars related to circular textiles and sustainability and has invited both local and foreign experts to discuss issues about circular economy in the textile sector as well as textile technologies. In addition to the Circular Textiles Forum "Taiwan Textile Industry on Its Way toward a Circular Future", there are also 10 professional seminars on textile technology that help for technical exchange and knowledge share. In addition, there will be 10 product launch activities and fashion shows presented by Taiwan Paiho and Cotton Council International, among others.

Starting with the pandemic, followed by the war in Ukraine, increasing material, energy and freight costs and now the rising inflationary pressures, plus the lockdown measures in China leading to supply chain disruption, the global economic uncertainty continues to impose challenges on the export-

oriented Taiwan textile industry. Chairman Wong specifically pointed out that the immediate challenges faced by the industry are the RCEP agreement, US-China trade disputes and Taiwan's energy supply, and called on the government to take precautionary measures to ensure the sustainable growth of the industry.

TITAS serves as the best platform linking Taiwan's textile value chain with global buyers. With the timely lifting of entry restrictions, this year will see the appearance of visitors from US, Canada, Germany, Italy, Japan, Korea, and more, opening a new page for the industry in the post-pandemic era.



Mr. Wen-Yuan Wang, Chairman of the TTF, delivered opening remarks



TTF top management wishes TITAS a great success.



TTF Chairman Wong and ex-Chairman Hsu accompanied Mr. Lee Lien-Chuan, Vice Minister of Ministry of Culture to visit FENC.



TTF Chairman Wong accompanied Mr. Lee Lien-Chuan, Vice Minister of Ministry of Culture to visit Formosa Plastic Group.



TTF Chairman Wong visited Eclat Textile.





FORMOSA PLASTICS GROUP

Formosa Plastics Group's exhibition theme was "Formosa Circleverse - Formosa Plastics Corporation's Circular Recycling Universe." Combining the concepts of circular economy and the Metaverse, Formosa Plastics Group focuses on using technology to harness a wide variety of different renewable and recyclable technology materials from the sky, sea, land, and even deep in the ground. Through these efforts, the Group has improved its product mix, creating a circular economy and

allowing carbon reduction and green energy to truly become a part of people's lives.

The FPG Pavilion at TITAS 2022 features a collaborative exhibition put on by Formosa Chemicals & Fibre Corporation, Formosa Plastics Corporation, Nan Ya Plastics Corporation, and Formosa Taffeta Co., Ltd. The Pavilion is composed of seven main areas, each based on a single theme: Schoeller, Fashion and Feathers, Popular Sports, Outdoor

Sports, Environmental Protection and Recreation, Industrial Materials, and Protection. These exhibits display how Formosa Plastics Group's main products are utilized in multiple fields, including fashion, sports, outdoors, protection, and industrial materials, while highlighting the latest developments in yarns and fabrics. FPG's vertically-integrated production line produces seven different fibers: rayon fiber, polyester fiber, raw nylon yarn, polypropylene fiber, elastic fiber,

carbon fiber, and functional yarn, all of which are combined by Formosa Taffeta. We look to showcase our close vertical collaborations with other companies through displaying these eight different products at the Formosa Plastics Group Pavilion. We have led the market with our innovative new materials, protecting the environment, achieving carbon reductions, and building a high-quality product image for our series of fiber products.

Please visit the [Booth M120](#).

FORMOSA PLASTICS (FPC)

The Tairyfil carbon fiber is a carbon fiber developed independently by Formosa Plastics through subjecting original fibers to a carbonization process. The fiber is widely used in sports equipment, wind turbine blades, and industrial applications. In particular, the carbon fiber TC780 produced from a new "dry jet wet spinning" process possesses high

strength, making it suitable for high pressure gas cylinders. This product not only anticipates future trends towards hydrogen energy, it also allows us to become a part of the satellite and space industry, as the fiber has been used in the production of high-pressure krypton gas cylinders used in the boosters for the Space X Falcon 9 rocket on its launch of a satellite in June 2021.

FORMOSA CHEMICALS & FIBRE (FCFC)

● Recycled Nylon 6 Chips

FCFC used chemical dispersion technology to mass produce recycled nylon 6 chips. Marine pollution has been a serious issue and the fishing nets are almost made up of nylon 6. FCFC has adopted recycling technology at marine debris cleanup areas to chemically extract recycled CPL with quality similar to that of newly-produced CPL.

● Dope Dyed Nylon Fiber

FCFC started developing dope dyed nylon yarn in 2014 and worked with major manufacturers in the production of fishing nets and ropes. In 2019, FCFC worked with Formosa Taffeta and expanded those yarns for use in ready-to-wear garments, shoes, and packing materials for better CSR and

environmental protection.

● Moisture Absorbing and Elongation Functional Yarns

In 2021, FCFC collaborated with TTRI to develop moisture absorbing and elongation functional yarns with fiber tows that make the fabric surface more porous and less likely to stick to the skin, which can be used in fabrics for sports and athleisure, increasing their breathability and comfort.

● Graphene Rayon Fibers

FCFC developed graphene rayon fibers. Graphene, applied in fibers, has the unique properties of super thermal conductivity and far-infrared radiation. Its rayon is made from FSC-certified natural wood pulp and has biodegradability.

FORMOSA TAFFETA (FTC)

● New Biomass Polyester Fabrics

BIO 3 PET polyester fabrics adopt special carbon capture and biological fermentation technology to convert waste gas carbon dioxide into ethanol and ethylene glycol as the basic raw materials of new polyester fabrics, then through direct carbon reduction method to make polyester textiles.

● Recycle Nylon Fabric from Waste Tires

Waste tires must be crushed first, then use thermal cracking to produce pyrolysis oil that is in turn converted into the raw chemical materials used to produce "environmentally friendly nylon yarn from recycled waste tires." This decreases environmental pollution, reduces carbon emissions, and conserves petroleum resources, thus remaining consistent with the concepts

of circular economy and sustainability.

● Recycling Marine Waste into Polyester Fabrics

In support of the collaboration between adidas and environmental NGO Parley, Formosa Taffeta has implemented efforts to recycle plastic waste polluting the oceans in the Maldives and Sri Lanka. The Company turns this recycled plastic into yarn, which is then made into environmentally-friendly fabrics.

● Recycling Marine Waste into Nylon Fabric

Taiwanese oyster farming industry produces a large amount of oyster ropes waste, resulting in marine pollution. By recycling and processing these materials through technology such as melting, dispersion, and refining, the Company can reuse them to make new raw nylon yarn.

NAN YA PLASTICS (NPC)

● SAYA Recycled Yarn

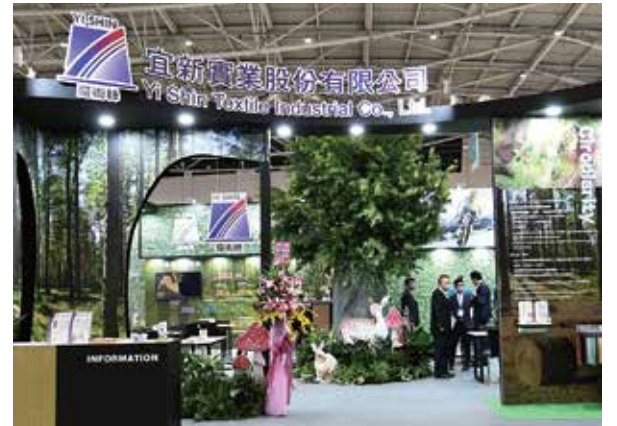
The new brand "SAYA", launched for the reduction of plastic waste, is divided into three series: SAYA365, SAYA Rscuw, and SAYA Garma. SAYA365 is recycled yarn from plastic bottles. NPC makes it possible for all polyester to be produced from recycled fiber, such as low-denier, ultra-fine fibers, twisted yarn, mechanical elastic yarn, and bi-shrinkage yarn, which all have recycled versions. SAYA Rscuw is created from leftover greige fabric, dyed fabric, or garment scraps. Remove dyes by water-based decolorization to remove dyes, then mix 20% fabrics plus 80% recycled bottle flakes in a 1:4 ratio to produce new chips that are turned into fibers, which has been GRS certified. SAYA Garma fibers are made from waste clothing. The AI sorting system will screen out the pieces made out of pure polyester or with a polyester

content over 65%, and then regenerated into fibers through mechanical process, or advanced chemical depolymerization technology.

● GREENONE Biodegradable Polyester Fiber

GREENONE contains special additives that allow microfibers in the ocean and the waste clothing buried in landfills to be degraded by microorganisms, converting them into carbon dioxide and methane. Determined using the ASTM D5511 method (modeling the conditions in a landfill), the degradation rate is 89.8% in 3.5 years. Using the D6691 method (modeling ocean degradation), the degradation rate is 69.9% in 27 months. Currently, GREENONE has already been integrated with plastic bottle recycling technology, showing how GREENONE fibers are environmentally friendly in a myriad of ways.





FAR EASTERN NEW CENTURY

Far Eastern New Century, a global leader in sustainability, textile innovation, and design, presents new materials and product solutions as below.

●FENC® Knitting and Dyeing SBU

Integrated multiple resources and eco-friendly products from FENC® vertical chain, developing high functional and sustainable fabrics for international brands.

●FENC® TOPGREEN® rTEX Spun Yarn

Transforms the textile wastes from the factory floors into a sustainable

100% recycled pre-consumer polyester and 100% recycled cotton yarns without any chemical treatment

●FENC® TOPGREEN® BIO 3 PET

Utilizes LanzaTech cutting-edge biotechnology that transforms industrial waste gas into low carbon MEG, which then turns into brand new polyester. Capturing and reusing carbon emissions, FENC® TOPGREEN® BIO 3 PET Filament and Textiles reduce carbon footprint and cut down on global community pollution.

Please visit the [Booth M106](#).

EVEREST TEXTILE

The European Commission released the European Green Deal at the end of 2019, revealing its goal of achieving carbon neutrality by 2050, making "net-zero carbon emissions" a hot topic of international discussion. Moreover, the implementation of ESG has become a consensus among global enterprises.

Everest adheres to the business philosophy of sustainable development, is committed to environmental protection, and relies on advanced R&D technology to develop high-performance fabrics and innovative sustainable products, including carbon capture,

bio-based, recycling and bio-based composite PET high-performance products, carbon capture polyester yarn, bagasse bio-based polyester yarn, E-2000 recycled polyester composite bio-based polyester eco yarn, recycled fishing net nylon yarn, recycled high tenacity nylon 6,6 (Cordura® re/cor®), Morphlon® waste shoe material recycled yarn, pineapple fiber yarn, the above products not only give customized functions, but also pay more attention to recycling and circular economy.

Please visit the [Booth M1220](#).

YI SHIN TEXTILE

Yi Shin Textile is a famous functional yarn (DTY/ACY) manufacturer in Taiwan. Their products fit all kinds of textiles in the use of apparel (sportswear, underwear, blouses, dresses, jackets, suits, jeans, etc.), shoes, bags, furnishing, medical fabric, automotive upholstery, etc.

They created a new brand of "Magic Yarn". The product series includes BES for biodegradable enhancement, and CAC (Cellulose Acetate Comfort) for great hand feel cooling performance and sustainability.

They also set up an eco-friendly production process which is called LEMTT, in order to achieve carbon neutrality in the end. It is to go higher automation to save the labor force (L), reduce electricity consumption, save energy (E), decrease the use of cartons (M=material) to lower paper usage, lessen the times of transportation (T) to decrease oil consumption, to adjust working hours properly (T=time) to achieve a better work-life balance.

Please visit the [Booth M620](#).

LEALEA GROUP

In response to the global trend of renewable energy & net zero carbon emissions, LIBOLON puts a premium on climate change, natural resource reduction, industrial pollution, and product safety issues for global consumers. LIBOLON has developed the green circulation concept through water circular economy, green recycling fiber products (RePET® eco-friendly polyester recycled yarn), (ReEcoya® recycle dope dye yarn).

LIBOLON is integrated from polymer, spinning, texturing, secondary processing, knitting/weaving, dyeing,

and post-finishing in order to satisfy the product request from different business sectors and reach wide application.

This ensures the fastest and most efficient product but also enhances their production in "Sustainability", "Digitalization", and "Sophistication". They combine the overseas integrated production of yarn, weaving, and knitting from PT. INDONESIA LIBOLON FIBER SYSTEM and also expand the production of BOPA for the material in the electronic & functionality film industry.

Please visit the [Booth M608](#).

ZIG SHENG INDUSTRIAL

Zig Sheng developed three innovative ZGRS certificated yarns : Revert (recycled nylon), Netup (recycled fishing net nylon), and Soufflex (high flexibility & low fiber-shedding yarn).

Zig Sheng Revert is a low-carbon recycled nylon yarn. Revert resins cut carbon emissions by 97% compared with regular nylon yarns. As a result, yarns made with Revert reduce CO₂ by 60%. And it produces 30% less carbon over a garment's life cycle.

To preserve valuable marine life in Taiwan, they collected waste fishing gill

nets from local fishing communities and converted them to yarn, Netup. Physical recycling methods guarantee that Netup contains 30% real recycled fishing net.

Soufflex is a breakthrough of high-flexibility, 100% polyester yarn. Its mighty springy form gives a softer premium feel than regular fabrics. The result of AATCC 212-2021 certifies that Soufflex releases 80% less microfiber in the laundry. This helps to alleviate important concerns about microfiber shedding.

Please visit the [Booth M419a](#).

JINTEX GROUP

JINTEX GROUP exhibits many innovative chemicals at TITAS 2022!

● **JINTEX Bio** : using plant oil and natural waste to replace petrol as raw material to produce chemicals for textile use, provided a total solution in the dyeing process.

● **Protect** : suitable for polyester, nylon, cotton, other blended fabrics, shoe materials, and accessories, adding durability and excellent water repellent effect.

● **Touch** : the newly launched hydrophilic softeners - JintexBio MK are soft and silky, and JintexBio LV is dry and fluffy.

● **MM** : providing excellent moisture management and efficient control of wicking, also have softer / soil release / anti-static.

● **JINTONE dyes** : high color fastness to washing of dyes for polyester with elastane blend. JINTONE DS series have 16 colors.

Please visit the [Booth M830](#).



ECLAT TEXTILE

Eclat is the world's leading designer and manufacturer of fabrics and apparel. They create irreplaceable value by offering quality-based and vertically integrated textile solutions that set industrial benchmarks, redefined markets.

Eclat developed a new value proposition: "Materials with purpose" to capture the essence of Eclat as a company and its current and future capabilities in activewear.

Stretchy like the stretchiest, the fine furrow structure of Primefit Zero is composed of highly compressed strands

of flexuous yarns. They maximize its stretch capabilities and inhibit the loss of elasticity for a longer life cycle. And, it's 100% recyclable. Primefit Zero is the performance essential of lightweight, moisture-wicking, and has excellent airflow for rapid motion. And it also has a smooth yet muted natural appearance fitted for tops. This year they extended their collection even more fun. With a mixture of different heater yarn and knitting structure, giving materials a new level of soft hand-feel, visual interest, and better recovery.

Please visit the [Booth M820](#).

SHINKONG SYNTHETIC FIBERS

Environmental protection and reduction of carbon dioxide emissions have been the mainstream. Shinkong still focuses on sustainable topics. Not only well-known recycled bottled yarn but also as below.

● Garment Recycled Yarn

Through the fast fashion trend, the increasing used clothes has become a big issue, now we have a new way to solve it. With special technology, Shinkong can reuse this waste now. Recycling those garments to the material stage and turning them into

polyester to achieve a sustainable cycle.

● Biodegradable Yarn

Generally, polyester products need centuries to be biodegraded after throwing. With the latest biodegradable techniques, it has become yummy for those existing bacteria. Then, polyester can be degraded faster than in the past.

● Carbon Neutrality Development

How to reduce carbon emissions now is already the homework for the whole world and all human beings. Shinkong is also trying its best to develop such products. Please visit the [Booth M409a](#).

NEW WIDE GROUP

New Wide has grown globally with four Business Units after 47 years of development - Knitting Integrate, Knit and Dyeing Supply Chain, Garment & Trade, Strategic Alliance.

New Wide's D3 Lab Dep. with the world's top-notch eco-technology, relentlessly keeps developing sustainable fabrics, in which they utilize more than 50% earth-friendly materials. They organize 4 topic zone for 2022 TITAS New Wide, Desert Explorer, Ocean Flow, Optimized Performance, and Creative Community, to focus on high-performance fabrics including anti-bacterial, breathable, and extraordinary wicking functionalities around eco-fashion. Moreover, they also plan the

topic zone of Naia™ Renew, a new age eco and luxurious fabric of di-acetate cellulose. All eco-tech is served here, including Naia Renew, BioMass, Biodegradable, and Recycled materials, to provide innovative and eco-friendly products & services for clients.

New Wide is committed to advancing textiles for a sustainable world through greener and intelligent manufacturing. As a pioneer, incorporating proactive digital transformation, they constantly work closely with partners along the supply chain to take breakthroughs in cutting-edge eco textiles. New Wide aims at a Carbon-Neutral Circular Supply Chain in the textiles and apparel Industry.

Please visit the [Booth M816](#).

OSHIMA

To create the truly capable domestic fabric inspection machine, OSHIMA teamed with the industry's top textile producers and the Industrial Technology Research Institute (ITRI).

OSHIMA EagleAi is the first AI fabric inspection machine to master knitted and stretch fabrics while at the same time maintaining fabric tension within 2%. Their neural network has already learned all the most common

fabric flaws, including flux spots, flux contamination, color spots, color contamination, filth, oil contamination, holes, knots, folds and color differences, weft defects, warp defects, hooked yarns, among others. The neural network can reach an overall accuracy rate of more than 90%, an accuracy rate of 94%, and a recall rate of 86%. The biggest advantage of EagleAi is that they can detect over 70% of unfamiliar fabrics in 4 hours or less, even without prior fabric data input.

Please visit the [Booth M804](#).

TEX-RAY INDUSTRIAL

Tex-Ray's latest launched Ecoloration is the revolutionary eco-dyeing process. By substituting printing for dyeing, the process takes less time, increases color reproducibility, and maintains continuous production. This minimizes the difference from batch to batch, reduces defects, keeps high fastness, and lowers the consumption of water and energy.

TCool® series is the functional yarn that has been continuously developed and improved by Tex-Ray's R&D team over the years. It has many strengths that cannot be achieved by other post-processing auxiliary products. With

cooling insulating powder directly added into the yarn material, its cooling performance is permanent, and will not be deteriorated through daily washing.

T-Cool® yarn can block 70% of UV lights while effectively reducing the temperature by 2°C to 5°C.

Besides RAYS Functional Materials Series, Tex-Ray has been engaged in smart clothing for years with its service of integrated supply chain and with its expertise in smart clothing applications in a wide spectrum from sporting, and outdoor to telehealth.

Please visit the [Booth M727](#).

KAULIN MFG. (SiRUBA)

KAULIN MFG (SiRUBA) devotes themselves to contributing sewing industry with various sewing machine products, which can be applied to numerous sewing procedures, like their best-selling OVERLOCK and INTERLOCK sewing machines, computer-controlled BAR-TACKING, and BUTTON-HOLING machines. They also released a full line-up of automatic sewing machines combining higher positioning accuracy and craftsman's touch, to fulfill customers' needs in many categories like knitwear, jeans, and sportswear.

SiRUBA focuses on more than just improving machine functional features, but also on achieving high levels of precision machined parts and components because a small deviation of machined parts and components from the standard value will directly impact on machine quality and performance.

Please visit the [Booth M1111](#).

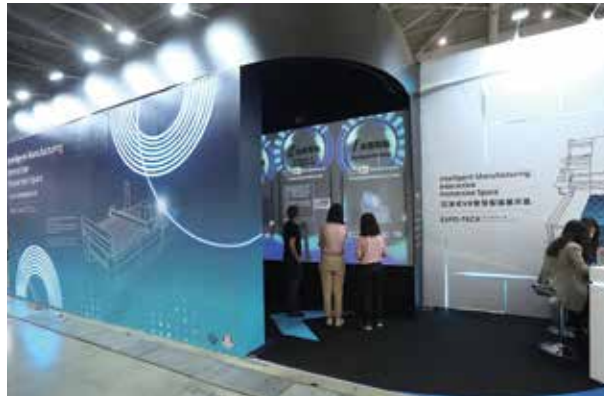
CHING CHI MACHINE

Ching Chi Company designs and manufactures high-performance sewing machines and delivers products globally by the brand "Kingtex". The automatic sewing equipment "special for knits and sportswear" is showcased, including round neck UHU9304/SS038, bottom hemming CXM2311/EG070, flat bottom and cuff hemming FTU7011/EG030, and overlock back-latch UHD9024F/BL324.

Kingtex has been recognized by customers for its stable quality and performance over the years. This time, the brand new NTD77 series is revealed. The mechanism is upgraded for the oil-proof improvement by the closed presser foot bar design, and the sensor-type automatic trimmer is optional for thread chain/tape cutting.

They also exhibit the CTD9811 series, a small cylinder bed interlock machine with a left edge trimmer.

Please visit the [Booth L828](#).



Integrating Physical and Virtual Marketing to Maximize Business Prospects

A hybrid event, TITAS 2022 expands the physical show into digital space by adopting various digital technologies to create a digital, interactive, intelligent, and sustainable exhibition format.

- **TITAS VR Online exhibition hall** : a live version of the physical exhibition presenting both panoramic and detailed views of the Show. Launched this year, this new feature aims to provide a reality experience of the show tour to those international professionals who are not able to attend TITAS on site. Viewers can have online visits to individual booth and access relevant exhibitor's information including company profile, e-catalog and contact info.

- **TITAS Online Show** : this 24/7 online platform serves as a marketplace for visitors to source the latest products from TITAS exhibitors - anytime and anywhere in the world. In addition to general product categories, products are also classified under five themes

including Sustainability, Functional Applications, Smart Textiles and Intelligent Manufacturing, and Personal Protective Equipment. "Trend Zone" launched concurrently with the physical show showcases exhibitors' most recent innovative products.

- **TITAS Live Stream** : live interviews of selected exhibitors on their innovations together with a guided tour of their booth will be available during the Show on YouTube, Facebook and TITAS website.

TITAS was selected as a demonstration field of the EXPO-TECH Pilot Project for Digital Exhibition of the Bureau of Foreign Trade, introducing the following digital technologies to enhance the interactive experience of visitors as below:

- **3D Hologram Hybrid Booth** : TITAS introduces new VR tech hologram booth with 3D modelling which adopts unique holographic display of 3D textile models

and interactive gesture recognition technology. The technology enables visitors to view and feel the authenticity of the fabrics, while overseas exhibitors can showcase as they are in a live setting. This program aims at helping overseas exhibitors who can't visit Taiwan.

- **Intelligent Manufacturing Interactive Immersive Space** : this space is designed to display via VR technology six intelligent manufacturing processes including fabric dyeing and finishing, textile design system, production management, pre-sewing equipment, sewing equipment, and pressing and packing. Combining advanced projection technology and touch technology with digital interaction and space design, this area provides visitors with an immersive experience by way of interactive projection mapping walls.

Excellent Textiles Connect Taiwan to the World

The impact of the COVID-19 epidemic has caused the stagnating of international face-to-face network between buyers and suppliers. In order to better buyer-supplier communications, TITAS goes all out to invite more than 41 brands from 11 countries, including TOMMY BAHAMA, MARMOT, EXOFFICIO, RALPH LAUREN, THE NORTH FACE, BLACK DIAMOND, DEUTER, HUGO BOSS, FENIX OUTDOOR, MIZUNO, etc. and holds more than 400 business meetings. As the border quarantine rules of Taiwan CDC continue to be eased, TITAS is expected to invite international buyers from U.S.A., Canada, Germany, U.K., Italy, Japan, South Korea, etc. which will contribute to the recovery of the textile industry in Taiwan.



TITAS Demonstrates the Cohesion of Taiwan's Textile Industry

The 26th TITAS Show is back in-person with expectations of all parties. TITAS brings together 24 textile-related associations and research units participated in the exhibition, including: Taiwan Man-Made Fiber Industries Association, Taiwan Spinners' Association, Taiwan Wool Textile Industrial Association, Taiwan Weaving Industry Association, Taiwan Silk & Filament Weaving Industrial Association, Taiwan Knitting Industry Association, Taiwan Regional Association of Filament Fabrics Printing Dyeing & Finishing Industries, Taiwan Textile Printing Dyeing & Finishing Industrial Association, Taiwan Garment Industry Association, Taiwan Sweater Industry Association, Taiwan Towel Industry Association, Taiwan Glove Manufacturers Association, Taiwan

Hosiery Manufacturers' Association, Taiwan Hat Exporters' Association, Taiwan Zippers Manufacturers Association, Taiwan Nonwoven Fabrics Industry Association, Taipei Sewing Machines Association, Taiwan Association of Machinery Industry, Taiwan Sewing Machinery Association, Taiwan Technical Textiles Association, Southern Taiwan Textile Research Alliance In R.O.C., Taiwan Underwear Innovation Alliance, Taiwan Textile Research Institute, and Industrial Technology Research Institute, which invites hundreds of members to demonstrate the highest quality textiles and innovative technologies, and presents the cohesion of the upstream, middle, and downstream of Taiwan's textile industry.

TAIWAN GARMENT INDUSTRY ASSOCIATION

The association together with the leading garment industry players, showcase Taiwan's high-quality garments at TITAS 2022, with the theme of circular economy, fashion, and athleisure.

"Fashion" is the eternal pursuit of the garment industry. Taiwan's garment enterprises incorporate fashion trends and individual inspirations to design ready-to-wear which bring out personal ease and confidence. You will witness an aesthetic of modern looks from members including the fashion interpreter for urban women Texma International and the expert of evening dress Minkwood International in the TGIA booth.

"Athleisure" appropriately reflects expectations from consumers of modern lifestyles: safety, health, and comfort. In the TGIA booth, a variety of athleisure

style proposals focusing on ease, comfort and function are offered. Happy Plastic, boasting its "airy rainwear which can breath", designs waterproof, comfy and fashionable workwear for different outdoor conditions; Hansc & Co., sticking to its commitment to environmental sustainability, has been devoted to shirt products for years to provide the best menswear solutions for different occasions; Duet Fashion, introducing in 2022 a series of medical wear made out of recycled materials, always keeps function, safety and eco-friendliness in mind when developing its products; and Tex-Ray Industrial, with its urban sportswear brand L'ARMURE, aims to create fashionable performance clothing for Asians to meet everyday activities and challenges.

Please visit the [Booth M336](#).



TAIWAN TEXTILE RESEARCH INSTITUTE

TTRI presents R&D achievement of high-end textiles, environmental sustainability, digital innovation, industry intelligent information, and talent training.

● High-end Textiles

Disclosing deodorization polyester masterbatch and fiber, AquaBreath® textiles, 2DF high color fastness dope dyes fluorescent fibers, functional inkjet printing textiles, PCM-long term thermal control technology, generic ECO elastic conductive slurry, precision exercise assistant clothing, force detecting and responding textiles.

● Environmental Sustainability

Demonstrate textile machine re-build & customize, technology development of natural textile material circular

system/processing on recycled fabric to fiber/advanced yarn, and testing/evaluation technology of fiber fragment release for synthetic textiles.

● Digital Innovation

Showcase textile information and digital systems, including E-service for the textile industry, the integration technology of textile digitization system, textile pattern comparison, and inspection technology.

● Industry Service

Display industry and market information platforms, including Textile NET in Taiwan and Tnet SMIS (Sportswear Market Intelligence System), textile academy and publishing.

Please visit the [Booth M136](#).



INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE

TITAS 2022, ITRI showcases with the theme of "net zero carbon cycle, a new future of digital textile" with the following three major areas.

● Textile Materials

Decoloring and recycling of polyester fiber; low carbon manufacturing of microbial dye; textile with rapid heating capability; low carbon application of agricultural byproducts; low carbon recycling of circular knit fabric; design & customized proofing service; digital printing and dyeing of functional textile; eco-friendly textile chemicals; dyeable polypropylene (PP) fabric; highly rebound thermoplastic polyester

elastomer (TPPE) fiber; antibacterial and antiviral fabric.

● Recycled Materials

Chemical recycling of polyester; recycling, modification, and application of waste polarizer; eco-friendly polyphenylene sulfide (PPS).

● Water Regeneration Materials

Wastewater treatment and regeneration systems; ITRI aims to continue to diversify and innovate its technology and product portfolio, and have in-depth exchange with international industry and business partners.

Please visit the [Booth M920](#).





COTTON COUNCIL INTERNATIONAL

Over the past 35 years, U.S. cotton production has consumed 79% less water per bale and 54% less energy, reduced greenhouse gas emissions by 40%, and reduced land use per bale by 49%. The adoption of practices such as minimal tillage, GPS and sensor-driven precision agriculture, and the growing of winter cover crops have further improved soil health, reducing loss and erosion by 37% per acre and increasing soil carbon levels.

The U.S. Cotton Trust Protocol is

the only fiber sustainability system that provides quantifiable, verifiable goals and measurements and drives continuous improvement in six key sustainability metrics. The Trust Protocol aims to set a new standard for more sustainably grown cotton that provides brands and retailers the critical assurances that the cotton fiber used in their supply chain is more sustainably grown with lower environmental and social risk.

Please visit the [Booth M520](#).

ORGANOCLICK AB

OrganoClick, a world-famous Swedish green chemicals company, is inspired by biomimetics and with the "MADE GREEN INSIDE" spirit inside, the brand of OrganoTex[®] was created. By imitating nature's extraordinary works, OrganoClick gives new properties to materials such as wood, textiles, and paper. Their products can replace plenty of the environmentally destructive chemicals and fossil-based plastics currently used in the functional materials industry. They also receive the certification of ISO14001 and ISO9001.

● About OrganoTex[®] DWR

Many textile impregnations are currently based on fluorocarbons (e.g., PFAS, PFC, etc.) and other chemicals that may be hormone disruptive and non-degradable. OrganoTex[®], a biodegradable (OECD301A) and PFAS-free water-repellent technology for textiles, is developed and inspired by nature, like the water repellent properties of the Lotus flower. OrganoClick supplies products both for consumers' aftercare as spray-on or wash-in products and for industrial usage as a durable water repellent (DWR) treatment.

Please visit the [Booth L332](#).

HEIQ MATERIALS AG

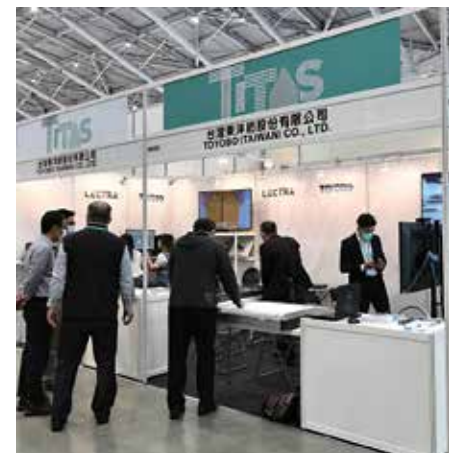
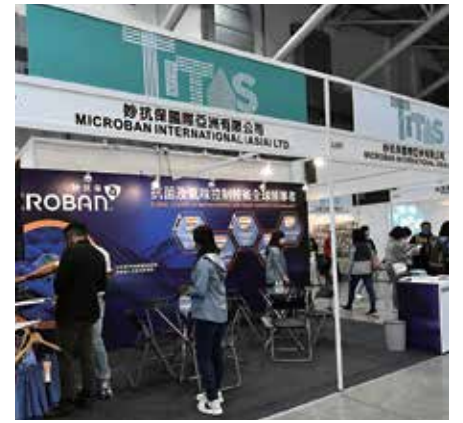
HeiQ (XLON: HEIQ) is the leading innovator who creates some of the most effective, most durable, and high-performance textile technologies in the world. Through the continuous improvement of textiles, HeiQ aims to bring more energy to the products we use daily by adding hygiene, comfort, protection, and sustainability.

HeiQ Cool, dual action textile cooling technology, is capable of providing instant contact cooling and continuous evaporative cooling. It cools before the first sign of sweat, delays the build-up of heat, and continuously regulates the temperature.

HeiQ Pure, a silver-based

antimicrobial technology with exceptional efficiency and durability, prevents microorganisms from making fabrics smell. **HeiQ Fresh MNT**, a plant-based odor adsorber with either bio-based or mineral-based ingredients, is the latest HeiQ product line for effective and sustainable silver-free odor control and VOC (Volatile Organic Compound) management. And as the weather shifts into the damp period, inspired by nature, **HeiQ Eco Dry** series is created for nature. It's eco-friendly, innovative, and PFC-free durable water repellent textile technologies provides protection from head to foot.

Please visit the [Booth L228](#).



MICROBAN INTERNATIONAL (ASIA)

Microban's proactive systems keep products cleaner and control odors better by preventing problems before they happen. The company drives innovation by combining science and creative solutions that enhance textile products around the world.

● **DuraTech™ by Microban®**

Is an industrial groundbreaking antimicrobial technology designed for cotton applications. This non-heavy metal technology has been proven to inhibit the growth of odor-causing bacteria up to 99.99 percent and reduce odors in cotton fabric up to 99 percent after 75 home launderings, far exceeding industry standards. DuraTech

is an ideal antimicrobial solution for home textiles, hospitality, apparel, and more.

● **Refresh™**

Is Microban's newest, patent-pending, and sustainable odor capture technology that is entirely metal free. This innovative technology is proven to reduce odors by up to 93% on polyester and polyester-rich blends, even after 30 home launderings. By keeping garments fresher for longer, this technology will allow end-users to enjoy the benefits of washing items less frequently and therefore reduce water consumption and fiber pollution.

Please visit the [Booth L327](#).