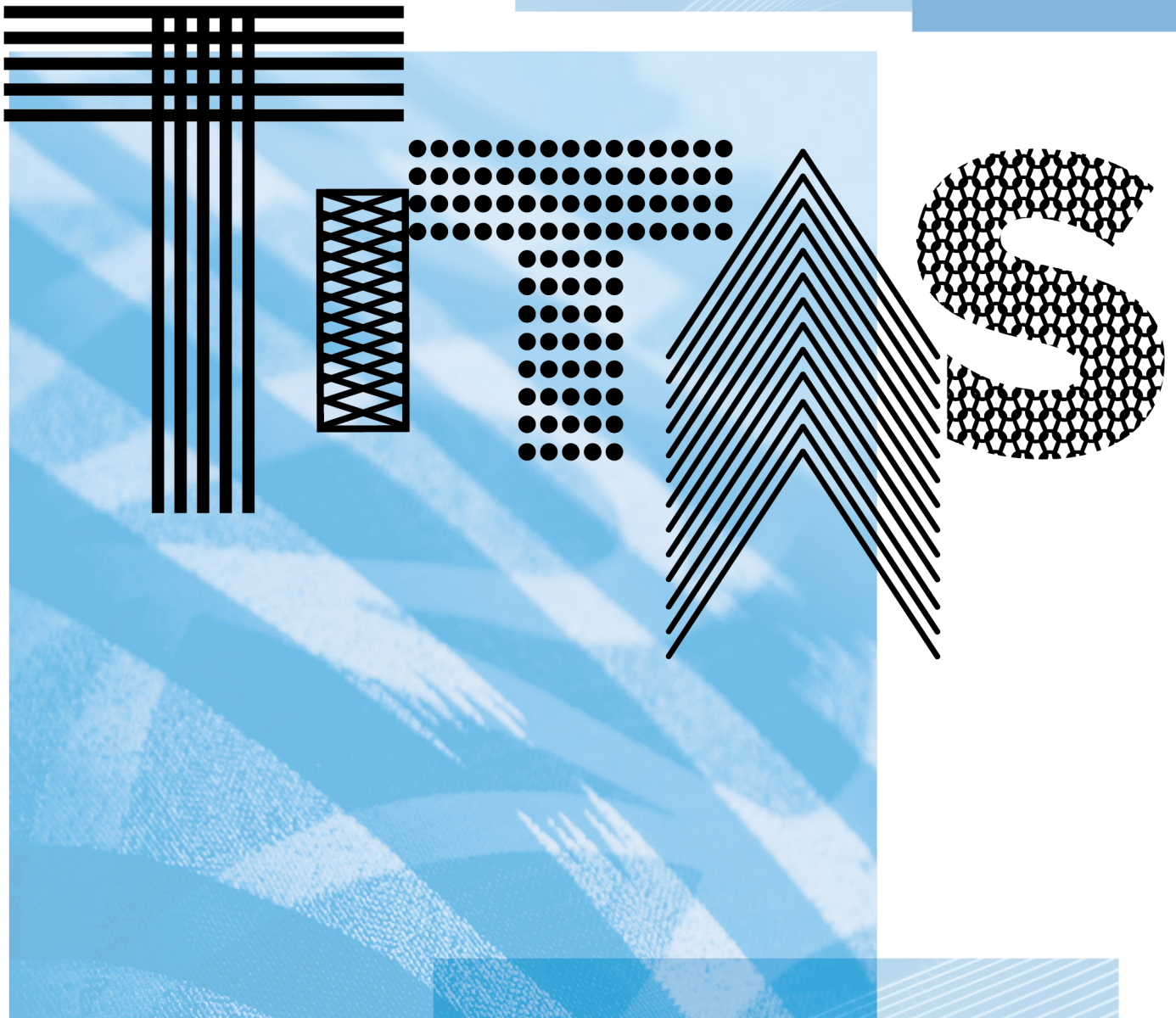
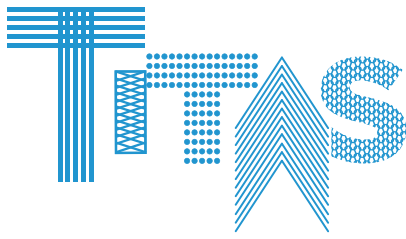


TAIPEI INNOVATIVE  
TEXTILE APPLICATION SHOW  
**2019 台北紡織展**





# Creating A New Era In Textiles Through Innovation, Technology and Sustainability

TITAS 2019 focuses on functional applications, environmental sustainability, smart textiles, and intelligent manufacturing



The 23rd Taipei Innovative Textile Application Show (TITAS), continuing to embody global trends towards digitalization and circular economy, once again hit a record high in scale of the show, with 423 exhibitors from 12 countries covering a total of 1,058 standard booths. The show attracted 41,000 professional visits from all over the world, with more than 100 international brand buyers carrying out over 1,000 procurement meetings and creating business potential worth up to US\$72 million.

TITAS 2019, held at the Nangang Exhibition Hall on October 7-9, was an event guided by the Bureau of Foreign Trade of the Ministry of Economic Affairs and hosted by the Taiwan Textile Federation (TTF). This year, under the four themes of “functional applications, environmental sustainability, smart textiles, and intelligent manufacturing,” the show fully demonstrated the innovative achievements of Taiwan's textile industry.

At the same time, in response to the trend towards industrial automation, TITAS 2019 also featured Industry 4.0 level automatic apparel making equipment, so as to present a total look of a complete supply chain system from upstream, mid-stream to downstream for the industry. In order to help the industry better understand this trend and utilize digital transformation to create value, two special areas namely Micro Factory Zone and Smart Solution Provider Zone were created within the show.



## Government and private sectors work together, responding to changing international circumstances with innovation

In the opening ceremony, Vice Minister of Economic Affairs Wang Mei-hua and Vice Minister of Culture Lee Lien-chuan together with TTF Chairman Chan Cheng-tien, Honorary Chairpersons William W. Wang and Douglas T. Hsu, as well as International Textile Manufacturers Federation President Kihak Sung, Vietnam Textile and Apparel Association Chairman Vu Duc Giang, Chairman of the China Chamber of Commerce for Import and Export of Textile and Apparel Cao Jiachang, former Major League Baseball player Chen Chin-feng, and approximately 150 representatives from textile associations, industry and overseas delegations, all jointly opened the prelude to the Taipei textile show.

In his opening address, TTF Chairman Chan stressed, "The textile industry was once considered a sunset industry, but through hard work, innovation and R&D, it has now been successfully transformed into a high-tech industry", and that in the international competitions of recent years, many ball game teams wore uniforms and jerseys made with Taiwan's functional, eco-friendly fabrics. It is obvious that Taiwan's functional textiles have taken a leading position in the global market.

Vice Minister Wang said in her address that although international circumstances are not bright, Taiwan's textile industry hasn't slowed down its pace to progress and innovate, and has developed the world's lightest filaments and thinnest functional fabrics, which are achievements Taiwan is proud of. And in the future, wherever Taiwan's textile entrepreneurs are, the Ministry of Economic Affairs will continue to act as a partner, assisting the industry to enhance manufacturing and marketing in order to let the world see Taiwan's textile strength.



(Top) Vice Minister of Economic Affairs Wang Mei-hua and Vice Minister of Culture Lee Lien-chuan visit Formosa Plastics.

(Bottom) Vice Minister of Economic Affairs Wang Mei-hua and Vice Minister of Culture Lee Lien-chuan visit Far Eastern New Century.

## Industry big guns out in front, displaying full range of business

Walking into the show venue, visitors would see the Formosa Plastics pavilion, jointly curated by Formosa Plastics Group companies including Formosa Chemicals & Fibre, Formosa Plastics, Nan Ya Plastics and Formosa Taffeta under the theme "Smart Innovation and Circular Sustainability." The pavilion as a whole covered five image zones of Fashion & Down, Sportswear In Style, Outdoor Activity, Energy & Environment and Industrial Materials.

Inside the Far Eastern New Century pavilion, a production process mapping gave a complete picture of the company's production processes from upstream, midstream to downstream, illustrating the layout of its entire polyester chain. The Far Eastern Group also took the opportunity of this year's TITAS to announce their newly-founded IDM (Innovation Direct to Market) unit, which aims to accelerate the commercialization of innovative products by integrating the group's internal resources, establishing technology platforms and enhancing the application of advanced R&D results to the branded products of the group.

Then there was the booth of Makalot, a ready-made garment maker always brimful of innovative kinetic energy. This year, it drew attention with a highly dynamic fitness show highlighting its collection "Live No Limit!" which combines ultimate performance and exquisite design. Besides showcasing products incorporating sportswear and fashion, 3D garment design and wearable technology, Makalot also presented virtual reality (VR) and artificial intelligence (AI) in a ready-to-wear application environment, demonstrating its R&D and production energy as well as the ability to make real-time negotiation with customers.



Makalot presents the theme "Live No Limit!"

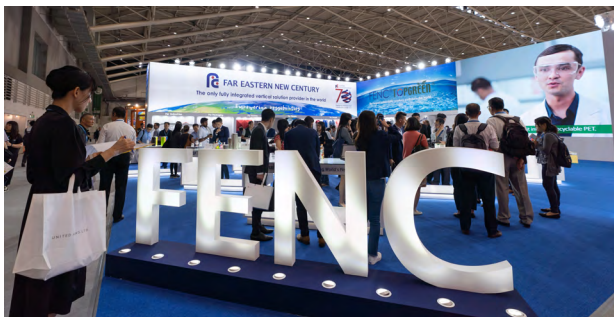
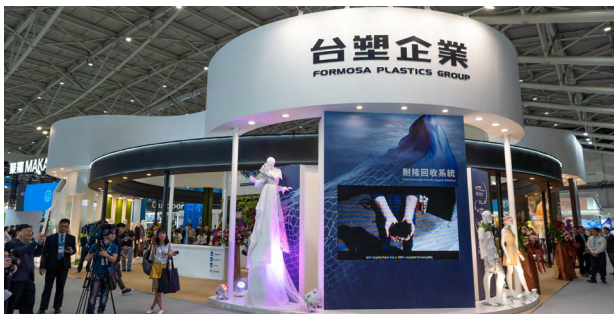
## Multifunctional and eco-friendly textiles are right on trend

The multifunctional fabrics developed by Taiwanese manufacturers have already shaped up a new life style covering the application areas of sports, outdoor, fashion and health care. Meanwhile, sustainability is no longer a plus, but a prerequisite for textiles. This is particularly true for companies like the two global sportswear giants Nike and adidas, who have proposed that "by 2024, our polyester products should be made from 100% recycled materials". A multitude of fast fashion brands also list eco-friendliness as a keyword of material sourcing and product marketing.



From the textiles made from recycled PET bottles and discarded fishing nets, to the reinvention technology used in recycling marine waste, made-by-Taiwan textile materials and products incorporating the circular economy concept have become a sourcing consensus among global brands. Therefore, products offered by Taiwan's textile industry and echoing the two linchpins of "functional application" and "environmental sustainability" were the dominant topic in business meetings at TITAS 2019.

Formosa Plastics' ROICA® Spandex PU fiber features outstanding tensile strength, abrasion resistance, durability and chemical resistance, while Formosa Chemicals & Fibre, after its introduction in 2017 of pre-consumer recycled yarns which have won the recognition of brands like Nike and adidas, this year exhibited post-consumer recycled yarns made from wasted fishing nets to show the company's care about the marine ecology.



(Top) Formosa Plastics Group pavilion highlights the theme of "Smart Innovation and Circular Sustainability."

(Bottom) Far Eastern New Century presents concepts of innovation and sustainable environment.

Far Eastern New Century joined the "turning ocean plastic into shoes" project, undertaken by adidas and the NGO Parley for the Oceans to expand the marine plastic recycling system and extend the use of ocean plastic. Up to 3,000 metric tons of marine plastic trash have been converted into the TopCool® Petal moisture management filament and the waterproof and breathable recycled polyester film Topgreen® Membrane, setting a global paradigm for green economy.

The unique bio-friendly dope dyed fiber Ecoya, developed by Lealea Group, was used by Apple as the material to produce the outer 3D mesh layer for its products two years ago, making Lealea the first textile supplier in Apple's supply chain. This year at TITAS, Lealea brought out the second generation product ReEcoya®, a recycled dope dyed fiber. Apart from having high fastness to daylight and washing, ReEcoya® also features benefits of reducing waste air and water emission, and saving energy and water resources.

Yi Jinn Group, which comprises Hong Chou Fiber, Yi Jinn Industrial and Kwang Ming Silk Mill under its banner, exhibited around a theme of "Environment and Sustainability for Good Living." The group also announced the arrival of "BioPro®", a biodegradable eco-friendly polyester fiber developed in conjunction with America's BioSphere Plastic LLC, in which BioSphere additives are used to modify the hydrophilicity of the polyester fiber, and accelerate the decomposition rate of made-up products, thereby doing its bit to protect the environment.

Eclat, with its ability to vertically integrate from knitting and dyeing to garment making and logistics, goes all the way with environmental protection! All the exhibits and display racks at the show were recyclable.

Adopting a new value proposition "Materials with Purpose" to capture the essence of Eclat's capabilities in activewear, the company chose "Functionality + Knit" as its exhibit theme and divided its products into three categories according to different functions and end products: Light+ Knit for lightweight and breathable tops; Flex+ Knit as comfortable and highly-flexible fabrics for tight-fitting styles; and Thermal+ Knit as warm, Insulating materials for fall/ winter wear.

Echoing the market demand for sustainability, New Wide Group displayed three product series: the Water Saving series using bio-friendly materials such as recycled ocean plastic, reducing the impact on water resources; the Breathable Cool Feel series using special cool-feeling recycled polyester yarns and prints, creating cool and comfortable feeling upon skin contact; the Eco and Biodegradable series allowing clothes to decompose in landfills, avoiding putting further burden on the environment.

This year, GrandeTex introduced a market-leading eco-friendly yarn ECO-Rich-y, created by combining Rich-y® yarn with earth-friendly materials. Fabrics made from ECO-Rich-y yarn offer longer lasting performance including anti-bacterial, odor proof and anti-UV. In addition, the company also launched short staple RICH Spun yarn to provide customers with more comprehensive and diversified purchasing options.

Singtex, the developer of the pioneering ecological coffee yarn S.Café®, introduced a waterproof and breathable coffee membrane AIRMEMTM, made with patented technology to replace partly petrochemical feedstocks with biomass material. Other products and technologies presented included yarns made from recycled garments by applying the company's patented S.Café® technology; the recyclable single-layer comfortable elastic fabrics Singtex® S.Leisure™; recyclable waterproof and moisture-permeable fabrics; and the single layer woven fleece technology Singtex® Stormfleece™.

Tainan Spinning's recycled polyester fiber uses waste PET bottles as material and has obtained Global Recycled Standard GRS 4.0 certification. The product has received enthusiastic market responses and is slated for adoption by major brands at home and abroad. The company also displayed a diverse range of yarns including moisture wicking yarn Hicool®, low temperature deep dyeing yarn, and two-tone composite yarn.

With "Energy Conservation and Emission Reduction – Proposition for More Eco-friendly Dyeing" as its theme, Everlight Chemical proposed a number of energy-saving and emission-reducing

solutions to address issues of greatest concern for the dyeing industry. These included the Everzol ERC Solution (energy-saving and carbon-reducing dyeing), CPB for Knitting (cold pad batch dyeing for knitted cotton fabrics), Everjet inks for digital textile printing, low waste water Everacid X acid dyes for nylon fiber, and Evereco PUR laminating adhesives, all aiming to reduce energy and water consumption costs incurred in dyeing, and help upgrade the dyeing and finishing industry.

### Smart clothes turn imagination upside down, science fiction scenes come true

At this year's show, domestic companies demonstrated smart clothing made via a combination of smart sensing technology and advanced textile technology, which upends people's imagination for clothes and is bound to be the future of the wearables industry.

Formosa Taffeta's A<sup>+</sup> smart thermoregulation clothing is able to use electronic devices to control clothing temperature; Far Eastern New Century's diPulse<sup>®</sup> smart clothing even goes as far as being able to transform themselves into fitness instructors; Makalot brought out fashionable smart clothing with sensing function, comprehensively improving sports performance and life quality; Tex-Ray integrates photoelectric heat into clothing and wearers can experience smart life easily through the Internet of Things (IoT).

Under its own brand iQmax<sup>®</sup>, Asiatic Fiber's smart textile products break out the framework of apparel to apply electrical conductive materials to gloves, wrist support and knee pad. Used via mobile app, these products are the first-ever wearable TENS/EMS therapeutic textiles in the industry.

### Digital transformation to intelligent manufacturing, Taiwan textiles towards a new era

A Micro Factory Zone was set up for the first time at TITAS this year to meet the automation trend and market demand in apparel making industry. The space presented an Industry 4.0 level production process from design system, pre-sewing operations, sewing equipment up to finishing equipment, epitomizing the concept of production automation for ready-to-wear clothing.



The Micro Factory Zone, demonstrating the concept of apparel sewing automation, wins considerable favor among overseas buyers.

Some equipment and system highlights in this zone included automated data identification & needle detecting device, pneumatic flat heat press machine and auto carton sealing system from Oshima; the digital high-speed template sewing machine for automated sewing application from Shing Ling; and an integrated cutting system covering knit/woven fabrics automatic spreading machine, conveying belt type cutting machine and mechanic auto cutting equipment from TSM.

### Scale of business meetings reaches new high again, confirming TITAS's bridge value

This year TITAS continued to expend serious effort to invite professional trade people from around the world. More than 100 international heavyweight brands and retailers in the fields of outdoor, sports and leisure, shoes and bags from 18 nations and regions around the world have come to Taiwan to meet old partners and explore new ones.

During the three-day show, global buyers and Taiwan exhibitors held more than 1,000 one-on-one trade meetings. Among the overseas buyers were US leisure and earth-friendly brand GoLite, America's largest hunting brand 5.11 Tactical, British bicycle clothing company Rapha Performance Roadwear, Swedish ski brand POC, and Canadian functional clothing brand Apparelmark. Shoe and bag brands coming for material sourcing included Denmark's Ecco, Canada's Arc'teryx, American luggage brand Samsonite, and fashionable outdoor bag brands Gregory, Mystery Ranch, and Camelbak of the Vista Outdoors Group, all target customers actively engaged by exhibitors.



International brand representatives come to participate in procurement meetings at TITAS 2019.

TITAS marks the continuous progress of Taiwan's textile industry in its move towards quality elevation and product differentiation, leading to its prominent position and high visibility in the textile world. Meanwhile, proved from the ever-increasing scale of the show, its exhibitors and visitors, TITAS is not only an important platform for the industry to launch new products, open up new customer sources and explore new market prospects, but also a major textile event that international buyers must attend every year.

## Exhibitors

Exhibitor	Company	Share %	Booth	Share %
Domestic	358	85 %	942	89 %
Overseas	65	15 %	116	11 %
<b>Total</b>	<b>423</b>	<b>100 %</b>	<b>1,058</b>	<b>100 %</b>

## Exhibits

Product Category	Company	Share %
Apparel Textiles	197	47 %
Trimmings & Related Products	58	14 %
Fibers, Filaments & Yarns	43	10 %
Textile Machinery / Sewing Equipment	40	9 %
Upholstery & Industrial Textiles	20	5 %
OEM / ODM Apparel & Accessories	16	4 %
Dyes & Additives	4	1 %
Textile Inspection & Certification	8	1 %
Related Products & Services	37	9 %
<b>Total</b>	<b>423</b>	<b>100 %</b>

## Purchasing Products

Product Category	Share %
Textile Products for Clothing Use	56 %
— Functional Fabrics	18 %
— Fashionable Fabrics	14 %
— Fibers	12 %
— Yarns	12 %
Ready to Wear & Sweater	10 %
Industrial Textiles	7 %
Textile Machinery / Sewing Equipment	7 %
Home Textiles	5 %
Nonwoven Textiles	4 %
Trimmings & Related Products	4 %
Accessories	3 %
Inspection & Certification	3 %
Others	1 %

## Visitors

Visitors	Number	Share %
Domestic	33,672	82 %
Overseas	7,328	18 %
<b>Total</b>	<b>41,000</b>	<b>100 %</b>

## Top Ten Visiting Countries

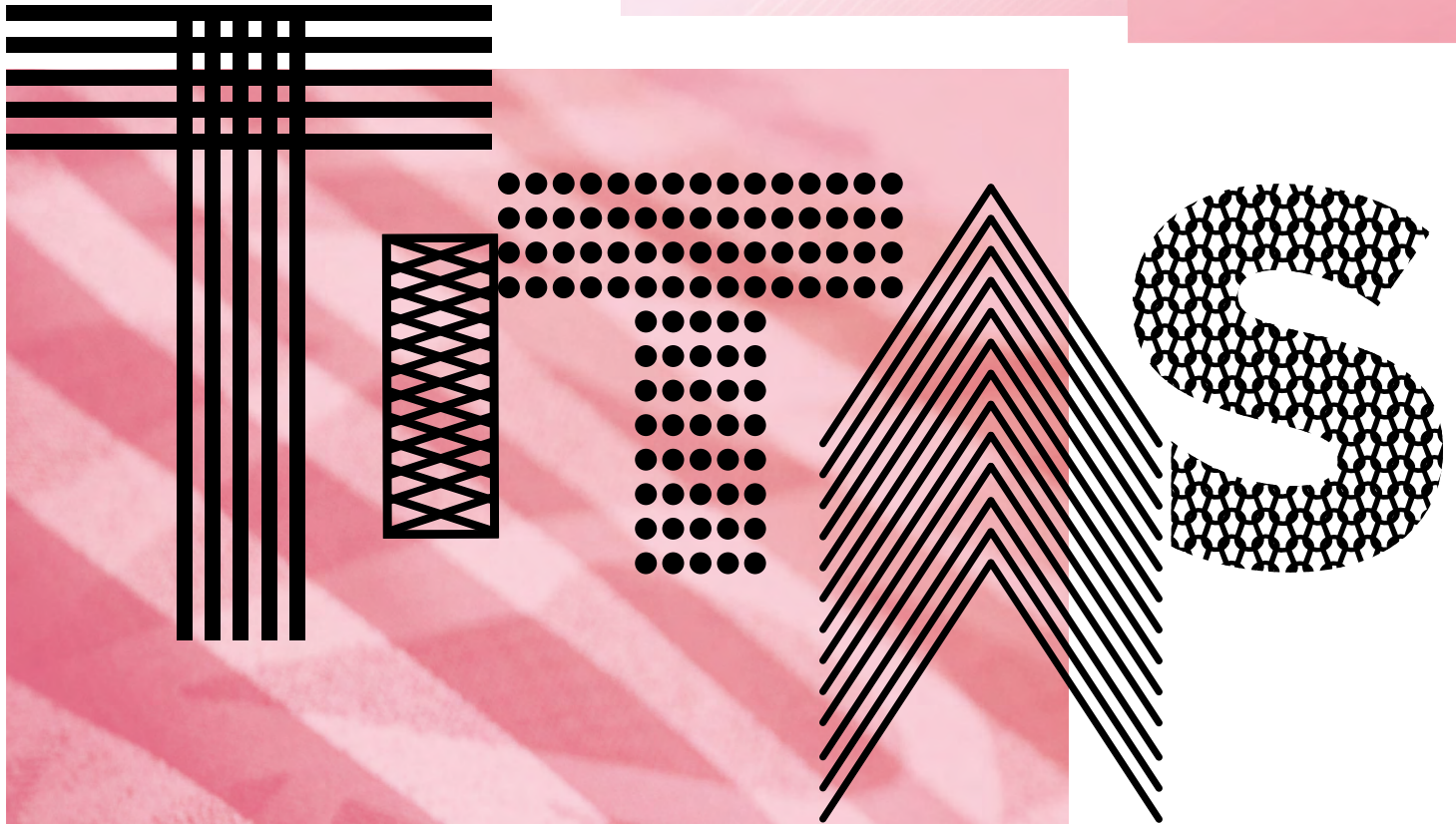
1. Taiwan	6. European Union
2. China	7. South Korea
3. Hong Kong	8. Vietnam
4. United States	9. Thailand
4. Japan	10. Canada



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**2020 台北紡織展**

**OCTOBER 13-15**



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Taiwan Textile Federation