

SUMMER 2019

FABRICA. WEAVE

THE FUTURE OF TECHSTYLE



TECHSTYLE FOR SOCIAL
GOOD INTERNATIONAL
COMPETITION
CULTIVATES FUTURE DESIGN
TALENTS
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CONSTRUCTING A
SUCCESSFUL PLATFORM
FOR STARTUPS
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為培育公司搭建成功平台



fabrica
南豐作坊

Welcome to our newsletter! In each edition we bring you interviews, insights and practical information about the techstyle startup world (companies at the intersection of technology and style).

感謝您閱讀南豐作坊的通訊！我們將送上不同的訪問與觀點，以及實用的業界資訊，助年輕創業家投入科技與時尚之間的 techstyle 世界。

SUMMER 2019

THE FUTURE OF TECHSTYLE

TECHSTYLE 的未來

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此乃中文譯本，如英文版本與此中文譯本有抵觸，以英文版本為準。

EDITOR'S NOTE — INCUBATING TALENT AND ENVISIONING THE FUTURE

Since moving into The Mills late last year, The Mills Fabrica has been hosting a variety of competitions, symposiums, seminars and conferences in partnership with different organizations to discuss the future of the techstyle industry. We have also been organizing workshops on techstyle product development at our own “Fabrica Lab”. Meanwhile, the experiential store “Techstyle X” officially opened in April to showcase innovative products by techstyle startups.

As an open platform for innovation, The Mills Fabrica not only provides co-working space and a prototyping lab to the ecosystem, but also supports promising startups through its incubation program. Green Is The New Black, MOTIF, and TG3D Studio, joined Fabrica Incubator in April. In this issue, the founders of these startups share with readers their motivations on joining. Fabrica also hosted its first event overseas in London, launching its cross-border incubation program and welcoming their first UK pilot incubatees, Reflaunt and Smartzer, in June.

The theme for this issue of Fabrica.Weave is “The Future of Techstyle”, covering innovative supply chain management that seeks to disrupt traditional operating models; a discussion on the future of the techstyle industry with Helen Palmer, Head of Materials, Textiles and Knitwear at WGSN; and dives into 12 outstanding startups from around the world who are paving the way for the future of techstyle.

Looking into the 17 Sustainable Development Goals set by the United Nations in 2015, we selected 10 goals closely related to the techstyle industry and reveal how startups can contribute to sustainability. To push forward the sustainability agenda within the fashion industry, The Mills Fabrica announced earlier this year its partnership with the H&M Foundation’s Global Change Award to support their startups in the development of their businesses in Asia. Erik Bang, Innovation Lead at H&M Foundation, also shared some tips for those keen on establishing a business in sustainability.

We need a sustainable environment to envision the future. The Mills Fabrica, along with other stakeholders in the global techstyle ecosystem, looks forward to building a sustainable society for future generations.

編者的話 —— 培育先進 想像未來

自去年底正式遷入南豐紗廠，南豐作坊曾與多家夥伴機構合辦多次比賽、講座及研討會，討論 techstyle 的行業前景。而原型實驗室「南豐作坊 Lab」亦曾舉辦工作坊，向大眾推廣 techstyle 產品的開發過程。實驗式體驗店「Techstyle X」也在 4 月正式開幕，展出多家初企的創新產品。

南豐作坊作為培育創新的開放平台，不但為生態環境提供辦公及產品研發的空間，也致力透過培育計劃支援具潛力的初企發展。今年 4 月份，3 家來自不同範疇的初企：Green Is The New Black、MOTIF 及 TG3D Studio 加入培育計劃；這幾家初企的創辦人，會為讀者分享參加培育計劃的緣由。南豐作坊也舉行首個國外活動，並正式開展其跨地域培育計劃，於 6 月歡迎首批在英國的先導培育公司 Reflaunt 及 Smartzer 加入培育計劃的大家庭。

這一期《Fabrica.Weave》的主題是「Techstyle 的未來」(The Future of Techstyle)。因此我們為讀者分析創新供應鏈如何改寫傳統產業日後的運作。此外，我們邀請了 WGSN 的物料、紡織品及針織品主管 Helen Palmer，探討 techstyle 產業的前景。我們同時放眼世界，為讀者搜羅全球 12 家優秀初企，看看他們如何把握 techstyle 行業的機遇。

聯合國在 2015 年訂立 17 項可持續發展的目標，我們挑選了其中 10 項與 techstyle 事業息息相關的目標，看看初企能如何為地球的可持續發展出一分力。此外，南豐作坊秉持可持續發展的方針，在年初與 H&M Foundation 的 Global Change Award 結盟，協助海外初企到亞洲發展事業。我們也邀請了 H&M Foundation 的創新主管 Erik Bang，向讀者分享開展可持續事業的竅門。

我們需要延綿永續的環境，才有構想未來的本錢。南豐作坊期待與全球的 techstyle 生態環境裏的各個持份者，共同為下一代創造具可持續性的社會。

TECHSTYLE FOR SOCIAL GOOD INTERNATIONAL COMPETITION CULTIVATES FUTURE DESIGN TALENTS

TECHSTYLE FOR SOCIAL GOOD 國際比賽 培育未來設計人才



The Hong Kong Polytechnic University and The Mills Fabrica co-presented the very first “Techstyle for Social Good International Competition”, calling out to students innovating for social good globally. The competition aims to raise awareness of techstyle designs, create a platform for supporting techstyle innovations, inspire social impact in the creative industry and nurture innovative talents through residency.

On 28th June, we announced the winners of the competition and invited speakers from leading fashion brands and design institutes to share the future of design at the symposium.

香港理工大學與南豐作坊合作舉辦「Techstyle For Social Good 國際比賽」，號召全球學生透過創新為全球社會福祉帶來正向改變。這次比賽希望提升 techstyle 設計在社會上的關注度、打造支援 techstyle 創新發展的平台、提高社會責任在創業工業的影響力，以及透過駐場計劃栽培優秀創新人才。

大會已經在 6 月 28 號公布賽果，並邀請了來自頂尖時裝品牌及設計學府的嘉賓參與研討會，討論 techstyle 設計的可能性。



“

A DESIGN PROCESS THAT ALLOWS FOR MULTIPLE INPUTS FROM ALL STAKEHOLDERS THAT WILL BENEFIT FROM THE OUTCOMES, AND IS FLEXIBLE ENOUGH TO ADOPT TO MEET THE CHANGING NEEDS IN TIME, SPACE AND HUMAN NEEDS WILL ULTIMATELY LEAD TO INNOVATION WITH LASTING MEANINGFUL IMPACT.

一個允許持份者多次貢獻並從中獲益的設計過程，若能夠靈活應對時間、空間和人類不斷演變的需求，將最終達致持久、具影響力的創新。

”



BURAK CAKMAK

Dean of Fashion
Parsons School of Design
帕森斯設計學院時裝學院院長

Key players in the techstyle industry gave keynote speeches at the event, including innovation and sustainability experts from leading fashion brands, scholars from renowned design institutes and founders of innovative fashion startups.

Several educators spoke on how education empowers innovative designs. Prof. Naren Barfield, the Deputy Vice Chancellor and Provost at the Royal College of Art (RCA) shared about the ways in which the prestigious postgraduate art and design university supports and nurtures their students and graduates to become innovators. While Prof. Chen Lin-lin, the Dean of Industrial Design at Eindhoven University of Technology introduced its Wearable Senses Lab and the development of its smart textile products. The event also invited Burak Cakmak, the Dean of Fashion at Parsons School of Design who mentioned that innovation is the key to redefining the fashion industry in the future.



Schools and research institutes are the cradle of influential innovations that bring about positive changes to society. In order to further explore the synergies between design education and innovation, the co-director of Fabrica, Alexander Chan, moderated the panel discussion “Design and Technology for Social Good”, addressing the impact of techstyle innovation on society with Prof. Zang Yingchun, Dean of Fashion & Textile Design Department at Tsinghua University, Grace Jun, Assistant Professor at Parsons School of Design, and Amy Winters, visiting lecturer at the Royal College of Art.

The event invited founders of innovative businesses to demonstrate how entrepreneurs put groundbreaking ideas to good use for developing the techstyle industry. The founder of Cute Circuit, Francesca Rosella, presented the first wearable fashion brand in the world that she founded in 2004, while Lauren Bowker, the Founder of Unseen, shared a pigment that changes color with the environment which can be used to produce cosmetic products.

Apart from startups and independent brands, leading fashion brands also take part in contributing to building up a sustainable fashion industry. Christine Goulay, the Sustainable Innovation Senior Manager at KERING explained the company's “environment profit and loss impacts” to the audience. Christianna Wincek, the Director of Flyknit Material Design at Nike shared the development process of its popular footwear collection that creates zero waste, proving the possibility of bringing sustainability and commercialization together.

活動邀請了 techstyle 業界領袖演講，當中包括來自主要時裝品牌的創新及可持續專家、知名學府的學者，以及創新時裝初企的創辦人。

多位教育專家提到教育如何推動創新設計的發展。皇家藝術學院署理副院長兼教務長 Naren Barfield 教授分享了他們支持及培育學生及畢業生成為創新者，而燕豪芬理工大學的工業設計院長 Chen Lin Lin 教授，介紹其「Wearable Senses Lab」團隊及他們所研發的智能物料產品。而帕森斯設計學院時裝學院院長 Burak Cakmak，則提到創新是改寫時裝行業前景的關鍵。

學校及研發機構是創新的搖籃，為社會帶來正向改變。為了進一步探討設計教育和創新之間的關係，南豐作坊聯席總監陳浩揚主持了以「Design and Technology for Social Good」為題的小組討論，與北京清華大學染織服裝設計系主任臧迎春教授、帕森斯設計學院助理教授 Grace Jun 以及皇家藝術學院客座講師 Amy Winters，分享 techstyle 創新對社會的影響力。

活動同時邀請了創新事業的創辦人，分享創業家如何利用突破性的構思締造 techstyle 時裝行業的未來。Cute Circuit 的創辦人 Francesca Rosella 展示了她在 2004 年創立的全球首個可穿戴時裝品牌。而 Unseen 的創辦人 Lauren Bowker，則分享了她研發的顏料能夠隨環境改變顏色，並可用於生產美妆產品。

除了初企和獨立品牌，時裝品牌的參與同樣能推動行業的可持續發展。開雲集團的可持續及創新發展高級經理 Christine Goulay 向觀眾解釋它們的「環境盈虧」指標 (environment profit and loss)。而 Nike 的運動鞋系列極受歡迎，其 Flyknit 物料設計總監 Christianna Wincek 分享了他們零廢棄產品的研發過程，證明可持續發展和商品化能夠共存。

WINNERS OF TECHSTYLE FOR SOCIAL GOOD INTERNATIONAL COMPETITION

TECHSTYLE FOR SOCIAL GOOD 全球比賽勝出者



12 finalists from design schools around the world were selected to present their innovative ideas in front of the judges. 5 winners were announced at the grand final who will go on to share prizes worth over HKD 680,000 offered by The Mills Fabrica, including cash prizes, residency, mentorship sessions, Fabrica Lab membership and access to its community of startups, partners and industry events. All finalists' projects are now showcasing at The Mills until 26th August, and will move to The Hong Kong Polytechnic University from 27th August to 22nd September 2019.

大會挑選了 12 位來自全球設計學府的入圍者，在評審面前展示他們的創新構想。活動宣布了 5 位勝出者，分享由南豐作坊贊助、總值港幣 680,000 的獎品，當中包括現金獎、駐場計劃、營商指導、南豐作坊 Lab 會籍，以及接觸初創企業及夥伴社群和出席業界活動的機會。所有入圍作品正在南豐紗廠展出直到 8 月 26 日，而第二站的展覽將會在 8 月 27 日到 9 月 22 日於香港理工大學舉行。

CAIR COLLECTIVE

TECHSTYLE GRAND PRIZE TECHSTYLE 大獎

**CANDIDATE(S)
參賽者** Amy Yu Chen/
Claudia Poh

**SCHOOL
學校** Parsons School of Design
帕森設計學院



“We believe in a different approach on design to broaden the potential outcomes by co-designing with a human at the core of our processes, pushing us to reconsider the future of fashion.”

「我們相信採用不同的設計方法，能夠開拓與用家共同設計的成果，這是我們設計過程的核心，也推進我們重新思考時裝的未來。」

TECHSTYLE FOR SOCIAL GOOD



FIVE WINNERS



HERITAGE CRAFT INNOVATION

SUSTAINABILITY GRAND PRIZE 可持續大獎

**CANDIDATE(S)
參賽者** Christine Lew/
Florian Wegenast

**SCHOOL
學校** Central Saint Martins College of Art and Design
中央聖馬丁藝術與設計學院



“Through our exploration of waste materiality, we want to introduce these new upcycled materials to local craftsmen and extend the conversation of upcycling to more creative practitioners.”

「透過我們對廢物實質性的探索，我們希望向本地工匠介紹升級回收物料，並向更多創意界別的從業人員，推廣升級回收物料。」



THE HANDS FREE MOUSE



TECHSTYLE SPECIAL PRIZE TECHSTYLE 特別獎

CANDIDATE(S) Hunmin Koh
參賽者

SCHOOL
學校 Massachusetts Institute of Technology
麻省理工學院



“People with arm disabilities face challenges when they encounter the majority of computer interfaces which are developed for manual control. With a relatively simple modification to the existing wireless mouse, the Hands-free mouse presents a straightforward and affordable option for assistive computer input hardware.”

「使用手動控制的電腦儀器，對失去雙臂的殘疾人士是一個挑戰。透過對現有滑鼠進行簡單修改，為他們提供直接、實惠的輔助式電腦輸入工具。」

FINALISTS OF TECHSTYLE FOR SOCIAL GOOD INTERNATIONAL COMPETITION

TECHSTYLE FOR SOCIAL GOOD 其餘入圍隊伍

SEAM UNSEAM



SUSTAINABILITY SPECIAL PRIZE 可持續特別獎

CANDIDATE(S) Naila Al-Thani
參賽者

SCHOOL
學校 Central Saint Martins College of Art and Design
中央聖馬丁藝術與設計學院



“I am eliminating fabric waste at the inception of the garment. Instead of stitching, I will be binding the seams using an SRT protein strip, reducing construction time, and lessening the strain on natural resources and the incorporation of dyes and chemicals to create thread.”

「我從一開始盡量減少布料的浪費，借助 SRT 蛋白質條子縫合布料的接口，減短製作之間外，亦能降低自然資源的壓力及減少使用染料及化學品製作縫線。」

AESTHESIS



HONG KONG BEST DESIGN PRIZE 香港最佳設計獎

CANDIDATE(S) Wendy Law Wing Yan
參賽者

SCHOOL
學校 The Hong Kong Polytechnic University
香港理工大學



“The ultimate goal of Aesthesis is to let the thumb amputees regain their autonomy of life, be it self-care ability or recovered social and family life, as well as empowerment in confidence and appreciation towards themselves.”

「Aesthesis 的終極目標是讓拇指截肢者能夠重拾生活自主性 — 不論是自我照顧、恢復社交及家庭生活，還是讓他們重建他們對於外表的信心。」

MEETWATER

CANDIDATE(S) Juncheng Wen
參賽者

SCHOOL
學校 Imperial College London and Royal College of Art
倫敦帝國學院及皇家藝術學院



“How do we combine hand drying and care in a hygienic and sustainable way? Introducing MeetWater, the soluble paper towel - let it fully have contact with water on your hands and the paper towel will dissolve into what feels like a thin layer of hand cream.”

「我們如何利用衛生和可持續的方法，將乾手和手部護理合而為一？為您介紹可溶解紙巾 MeetWater — 把紙巾與手上的水分接觸，紙巾便會融化並成為一層像潤手霜的薄膜。」

POLYMERIC OPTICAL FIBRE

CANDIDATE(S) Miu Wong
參賽者

SCHOOL
學校 The Hong Kong Polytechnic University
香港理工大學



“POF footwear is illuminative, interactive and colour adaptive. It is designed for the elderly and provides a low level light to enable the elderly gaining clearer visibility in dim and dark environments. It lights up when it detects the movement of the elderly getting out of bed.”

「POF 是一雙能發光、互動及擁有顏色適應性的鞋履。POF 為長者而設計，提供微量光線，藉此提高他們在昏黑環境中的視野。鞋履只要感應到長者離床後的動態便會發光。」

MINTISSUE

CANDIDATE(S) Dominic Co/Wenbin Zhu/Carrie Lan Ge
參賽者

SCHOOL
學校 The University of Hong Kong
香港大學



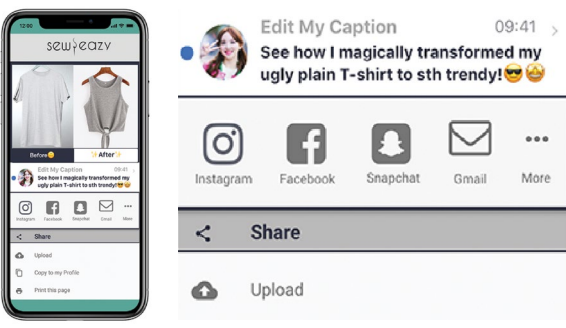
“Our design solution “MINTISSUE” provides visual feedback during usage. It tells the customers when the tissue is dirty by changing color from light blue to pink. It shows their face are clean until the tissue remains blue after wiped.”

「我們的方案 MINTISSUE 提供視覺效果，透過淺藍色變成粉紅色的過程，告訴用家紙巾已經不乾淨。如果他們擦臉後紙巾維持藍色，便代表已經擦拭乾淨。」

SEW.WE;SEW.EAZY

CANDIDATE(S) Tiffany So/Cherry Man Yee Yip
參賽者

SCHOOL
學校 The Hong Kong University of Science and Technology
香港科技大學



“Wasteful consumer behaviour and low adoption rate of upcycling clothing in Hong Kong worsens the fashion waste and pollution problem. Sew.We;Sew.Eazy alleviates the solid waste problem by prolonging clothes’ life cycle by encouraging upcycling”

「香港顧客的浪費行為，以及他們對升級再造衣服的低接受程度，惡化時裝廢棄和污染問題。Sew.We;Sew.Eazy 延長衣服生命週期，緩和固體廢物的問題。」

SENSORY BOOK

CANDIDATE(S) Heeyoung Kim/Joungmin Yoo
參賽者

SCHOOL
學校 The Hong Kong Polytechnic University
香港理工大學



“Sensory book is an interactive activity tool, designed for people with dementia who need meaningful interaction with family members or informal caregivers through the activity in domestic settings.”

「Sensory book 是一個互動式活動工具，為需要與家人或非正式護理人員互動的失智症患者，提供適合家庭環境的活動。」

THERMOCARE BLANKET

CANDIDATE(S) Li Shao/Vera Bai
參賽者

SCHOOL
學校 The Hong Kong Polytechnic University
香港理工大學



“The whole design combines technology, function and usability. The blanket can provide subjective measurement to baby’s body temperature, and give real-time feedback to all the parents and other carers. With this product, parents can have a peaceful mind.”

「整個設計包含了科技、功能及可用性。這張毛毯能夠主觀量度嬰兒的體溫，父母和其他照顧者能夠得到實時反饋。有了它，父母便可安心了。」

BEEING HUMAN

CANDIDATE(S) Jamela Law
參賽者

SCHOOL
學校 LASALLE College of the Arts
拉薩爾藝術學院



“Various 3D printing technologies are incorporated into the fabrication process. They allow parts to be 'made to order', building only what I need instead of relying on mass production methods characterized by heavy consumption of resources.”

「我應用多種 3D 打印科技到製作過程，允許我訂製生產我只需要的部件，而不需要依賴消耗大量資源的大型生產的模式。」

FINALISTS

THE MILLS FABRICA x H&M FOUNDATION GLOBAL CHANGE AWARD INCUBATING ENTREPRENEURS IN SUSTAINABLE FASHION

南豐作坊 x H&M FOUNDATION GLOBAL CHANGE AWARD
攜手培育永續時裝創業家

With a mission to connect stakeholders globally, The Mills Fabrica has been building a solid techstyle ecosystem that provides priceless support to techstyle entrepreneurs. Earlier this year, The Mills Fabrica announced its partnership with H&M Foundation Global Change Award (GCA), to join forces in helping some of the world's most promising entrepreneurs who are developing innovations for a more sustainable world.

南豐作坊致力連結全球夥伴，為 **techstyle** 生態系統奠下穩固基礎，讓有志開展 **techstyle** 事業的創業家得到寶貴的適切支援。今年，南豐作坊宣布與 **H&M Foundation** 的 **Global Change Award (GCA)** 合作，為世界締造可持續的創新事業。



H&M Foundation (HMF) is a non-profit global foundation privately funded by the Stefan Persson family, the founders and majority owners of the H&M Group. HMF's mission is to drive long lasting, positive changes and improve living conditions by investing in people, communities and innovative ideas. Through partnerships with organizations around the globe, HMF aims to accelerate the progress needed to reach the UN Sustainable Development Goals by 2030. HMF focuses on four key areas: Education, Water, Equality and Planet. Global Change Award (GCA) is an innovation challenge initiated by HMF, aiming to make fashion circular. GCA is one of the world's leading challenges for early stage innovation, and the largest initiative of its kind in the fashion industry. As a global hub for the textile industry, Hong Kong was the only Asian city chosen by GCA to participate in the Innovation Accelerator Program. Erik Bang, Innovation Lead at HMF, says "we are very excited about partnering with The Mills Fabrica to provide the Global Change Award winners with continued insights, growth and impact beyond the GCA Accelerator. A foothold in Hong Kong and Asia combined with the network, access and support from The Mills Fabrica unlocks a critical springboard for these changemakers to truly reinvent fashion."

THE MILLS FABRICA'S FULL SUPPORT FOR STARTUPS IN HONG KONG

The Mills Fabrica supports selected GCA alumni in their development in Asia through a tailored incubation and residency program. This will include access to Fabrica's coworking space at The Mills in Hong Kong, state-of-the-art prototyping lab and retail exposure at Techstyle X at The Mills Shopfloor. Moreover, through The Mills Fabrica's extensive network, startups will benefit from connections to manufacturers, brands, investors, research centers, academic institutions and be invited to showcase their innovations and stories at events and conferences across Asia and around the world. Startups also have the potential to join Fabrica's Incubation Program at the end of their residency and the chance to pitch for investment from Fabrica Fund.

The Mills Fabrica/H&M Foundation Global Change Award (GCA) Residency Program officially welcomed its first startup, Moral Fiber, whose mission is to make plastics climate-positive through chemical recycling. Founder Akshay Sethi shared that they "look forward to working with The Mills to accelerate the adoption of moral fiber technology and are excited to play a role in advancing breakthroughs in circular materials solutions for the fashion industry."

Vanessa Cheung, Managing Director of Nan Fung Development Ltd. and Founder of The Mills hopes that "through this partnership, [The Mills Fabrica] can provide H&M Foundation's Global Change Award startups with the necessary tools and equipment, access to key Asian markets and a network of world class manufacturers, brands and retailers to take their business to the next level and further their innovations to create a more sustainable techstyle industry."

H&M Foundation (HMF) 是全球性的非牟利基金，由 Stefan Persson 家族、其集團創辦人及 H&M 集團主要股東私人擁有。HMF 以改善人類的生活品質為宗旨，透過投資人才、社群及創新構想，推動具持久力的正向改變，促進聯合國訂下的「可持續發展目標 2030」，主要工作範疇包括教育、水資源、平權及地球環境。而 Global Change Award (GCA) 是 HMF 主辦的創新獎項，以推動時裝行業實踐循環經濟 (Circular Economy) 為目標，同時是世界性的早期創新獎項，也是時裝業內最大型的同類型活動，藉此保護地球環境及人類生活品質。香港作為全球紡織業樞紐，被 GCA 挑選進行「創新推進計劃」的唯一亞洲城市。H&M Foundation 創新主管 Erik Bang 表示，很高興與南豐作坊合作：「我們很高興與南豐作坊為 GCA 勝出者，提供推進計劃以外的意見及成長空間。他們的人際網絡與各種支援，讓初企有機會在香港和亞洲大展拳腳，成就這班改革者重塑時裝業的現況。」

初企來港探索亞洲機遇 南豐作坊全力支持

來港參與駐場計劃的 GCA 得獎者，將會得到靈活、特別制定的培育計劃。此外，南豐作坊會提供工作空間及配備先進器材的原型實驗室「Fabrica Lab」，讓他們能專注開發產品。他們亦有機會位於南豐店堂內體驗店「Techstyle X」展示其創新產品。南豐作坊也會帶領他們到世界各地的活動分享事業構想，並透過南豐作坊的人際網絡，認識來自全球的製造商、品牌、投資者、研發機構及優秀學府，把握開拓亞洲生產線及零售市場的機遇。完成駐場計劃後，他們更有機會得到南豐作坊投資基金的注資。

南豐作坊和 GCA 的合作已經正式展開，首家參與計劃的初企是 Moral Fiber。他們透過化學回收，將塑膠扭轉成對氣候帶來正面影響的物質。其創辦人 Akshay Sethi 表示：「我們期待南豐作坊的駐場計劃，使 Moral Fiber 開發的科技得以廣泛應用。對於 Moral Fiber 為時裝行業帶來突破性的循環物料方案，我們感到非常振奮。」

南豐發展有限公司董事總經理及南豐紗廠創辦人張添琳對合作充滿信心：「這次合作為 GCA 得獎者提供所需的設備，幫助他們開拓亞洲市場。我們遍佈全球的製造商、品牌及零售商網絡，將扶助他們的事業更上一層樓，並藉他們的創新科技，為 techstyle 行業締造更具可持續性的未來。」

H&M FOUNDATION GLOBAL CHANGE AWARD

40 million tonnes/year of polyester

Co-Founder & CEO of Moral Fiber, Akshay Sethi
Moral Fiber 共同創辦人及行政總裁 Akshay Sethi



AN INTERVIEW WITH ERIK BANG : THE PATH TO SUSTAINABLE DEVELOPMENT FOR STARTUPS

H&M Foundation's Global Change Award and The Mills Fabrica are collaborating to incubate innovative startups as well as establish a sustainable environment and society for future generations. As the Innovation Lead at H&M Foundation, Erik Bang analyzes the influences of sustainable development on the fashion industry, and how startups and innovative technology can get involved in the fashion industry.

H&M Foundation 的 Global Change Award 與南豐作坊合作栽培創新初企，為下一代建立可持續的環境與社會。H&M Foundation 的創新主管 Erik Bang，分析可持續發展對時裝行業的影響力，初企及創新科技又能如何介入時裝業。

GLOBAL CHANGE AWARD



“WE NEED TO REINVENT EVERY ASPECT OF THE INDUSTRY’S VALUE CHAIN TO FUTURE- PROOF THIS INDUSTRY”

「我們需要重塑行業價值鏈裏的每個環節來證明行業的前景。」

WHAT IS THE IMPACT OF INNOVATION ON CREATING A SUSTAINABLE FASHION INDUSTRY?

Innovation is imperative to a smarter fashion industry within the planetary boundaries. We need to reinvent every aspect of the industry's value chain to future-proof this industry: design, material sourcing, production, finishing, logistics, retail, use and recycling. The global middle class will grow by 200% between 2015 and 2030, or in numbers by a staggering 3 billion people. This is a beautiful thing as never before have so many people and such a large share of the global population had access to healthcare, education and jobs which allow them to aspire towards a better life.

The downside is that this is expected to drive fashion and other types of consumption through the roof which will put pressure on our planet that it simply cannot cope with. There is not enough land nor resources to meet this demand. Plus, the impact on our climate will be devastating leading to the worst imaginable consequences. In short, the entire system must change. Not only fashion but our entire economic model and all industries. The only way forward lies in innovation and bold ideas. Innovation and a circular economic model will be able to foster solutions that allow us to create value for people, our planet and business at the same time.

WHAT ARE THE BIGGEST CHALLENGES THAT THE FASHION AND TEXTILE INDUSTRY VALUE CHAIN ARE NOW FACING?

As mentioned, we need to reinvent every aspect of the value chain, not just materials and recycling. There are a number of key issues that this industry needs to deal with urgently; water and chemical use, waste across the entire value chain, designing better products, production versus demand and extending product use, to name a few.

Change can often scare people as we tend to be creatures of habit who feel safe with the status quo. Instead we should see this urgent need for innovation and change as the biggest opportunity ever given to this industry; we are given the opportunity to reimagine what our industry should be and create a better and smarter version, generating value for people and our planet and profit for shareholders.

ERIK BANG 專訪： 永續初企發展之道



創新科技對時裝行業的可持續發展又甚麼影響？

在「地球界限」（planetary boundaries）的層面來說，創新科技對發展智能時裝行業尤其重要。我們需要重塑行業價值鏈裏的每個環節——不論是設計、物料採購、生產、加工、物流、零售、使用以至循環再用——來證明行業的前景。預計 2030 年全球的中產階級人數，將會比 2015 年的高出 200%，相等於 30 億的人口。這是一件很美麗的事情，因為在歷史上，地球從來沒有過這麼大群體，擁有一份工作允許他們過更好的生活，讓他們能夠負擔教育及醫療服務。

但另一邊廂，這促使時裝和其他類型的消費增加，為地球帶來不能承受的壓力。土地和其他資源緊絀，加上災難性的氣候改變為地球帶來難以想像的後果。短期內，整個系統應該改變——不只是時裝行業，而是整個經濟模式和所有行業。創新科技和大膽構想是唯一改變現狀的方法。而創新和循環經濟模式能夠有效促進行業應用解決方案，為人類、地球和經濟創造價值。

時裝及紡織業現在面對最大的挑戰是甚麼？

剛才提過，我們需要重塑價值鏈裏的每一個環節，而不限於物料及循環再用。行業裏有很多議題需要急切處理，當中包括：水資源及化學物質的應用、價值鏈產生的廢物、設計更好的商品，以及以按生產及延長產品壽命，取代傳統生產模式。

「改變」兩個字嚇怕不少人，因為人類習慣生活在安舒圈內。人類知道自己的弱點，我們急需創新科技改變這情況。因為只有改變，才能為時裝行業帶來更多機遇，重新想像時裝行業能如何變得更好、更智慧，同時為人類和地球衍生價值，為企業股東創造利潤。

WHAT CAN STARTUPS CONTRIBUTE TO MITIGATING THE CHALLENGES?

Startups play a key role in deploying their fearlessness and creative minds to challenge the status quo and help solve these challenges! This industry needs a lot of help from people with the outside perspective, experience, skills and vision that normally don't work in the fashion industry. Our industry is very fragmented across value chain and national borders and lacks the tradition of investing in R&D, unlike engineering-based industries such as the automotive industry.

As a result, while there is a lot of great innovation out there, our industry doesn't have the experience on how to work with external innovators and entrepreneurs. This is why change has been slow. But things have started to change fast in recent years, people and capital are allocated more wisely and mindset is changing, the industry is opening up and the trend is looking really positive.

STARTING UP A NEW BUSINESS COULD BE RISKY - HOW DO ENTREPRENEURS FIND THE RIGHT FIT BETWEEN COMMERCIALIZATION AND SUSTAINABILITY?

This is a great question. Being an entrepreneur is always risky. But unfortunately, sustainability is very often associated with a major compromise in quality, price, performance, experience, design, etc. which makes life a bit harder for entrepreneurs in this space. One reason for this is that expectations on sustainable innovation in the past have been “nice to have” rather than business critical, so they haven't thought hard enough about competitiveness or scale.

In the Global Change Award, we coach our passionate innovators and entrepreneurs hard on developing their business case to be realistic and competitive. It can't just be a sustainable option, it needs to be both sustainable and make business sense. The beauty of the circular economy model allows for just that.

We try to live by this ourselves too in our research with HKRITA on textile recycling; our solution needs to be the same quality as and be significantly cheaper than using virgin resources. It's hard but surely it can be done.

HOW DO H&M FOUNDATION AND GLOBAL CHANGE AWARD SUPPORT STARTUPS?

Every year we pick five winners in GCA. They share a EUR 1M grant, so no investment for equity or IP but essentially free money. In addition, and perhaps even more valuable is the one-year long accelerator program these winners get. H&M Foundation provides this program together with Accenture and KTH Royal Institute of Technology, all pro bono. The program takes the teams to Stockholm, New York and Hong Kong to learn about all aspects of the industry; growing a business and transforming this industry. The teams get coaching, skills, networks, access and exposure to the industry, markets, investors and media. All designed to cut years off their development.

The cohort of winners and alumni of previous winners is also a great asset for these teams to access. There is so much value in learning and sharing with peers and together they create an ever-growing force of change in this industry. We bring the alumni together in both Stockholm and Hong Kong every year to facilitate this ecosystem and platform.

AS A TECHSTYLE STARTUP, WHAT ARE THE BENEFITS OF SETTING UP AN OFFICE IN HONG KONG?

GCA targets innovation at its earliest stages, before it's commercially ready and perhaps even scientifically proven. Our partnership with Fabrica provides a very valuable and strong platform for the teams for continued development and momentum after the 12 month long GCA accelerator ends. As GCA takes on the next cohort of winners, the previous cohort can keep up their pace with the support of Fabrica.

An incredibly valuable aspect of the support from Fabrica is its location in Hong Kong as a spring board to the key markets and industry players in Asia. To create this ecosystem of accelerated change is critical for these startups to succeed but also pivotal for all of us trying to transform the industry fast enough to make an impact on protecting our planet, resources and ecosystems.

初企可以做甚麼改變現狀？

他們擔當著無懼面對挑戰，將創意思考付諸實行的重任。行業需要外間的意見、經驗、技術及願景；而在傳統的時裝行業，你通常不會找得到這些資源。不像汽車業等工程，跨國時裝行業價值鏈碎片化，欠缺投資研發的傳統。

所以即使外間有很多很優秀的創新技術，我們卻沒有經驗跟創新者及企業家合作；因此，時裝行業的改變進程非常緩慢。但這一、兩年間，時裝行業開始急速改變，企業開始懂得分配人才和資源，思考模式也漸漸轉變，行業的前景變得非常正面。

開創一門新的事業有危有機，初企如何在商業化和可持續發展中找到平衡？

這是一個很好的問題。創業充滿危機，更可惜的是「可持續發展」常與品質、價格、性能、經驗、設計等讓創業家處境更加困難的元素掛勾。過往，可持續創新被視為「有便更好」而非事業的關鍵。因此很多人都沒有想到創業的競爭有多大、擴張有多艱難。

Global Change Awards 訓練一班有志改變世界的創新者和創業家，幫助他們建立一門可行、具競爭力的事業。它們不只是一門「可持續」事業，而是可持續及商業價值並重，展示循環經濟的美麗之處。我們與香港紡織及成衣研發中心（HKRITA）合作，研發循環再用的紡織品，嘗試體現循環經濟。我們的解決方案比傳統原材料的品質更高、價錢更便宜。這不是一個容易的項目，但我們深信終有一天會完成。

H&M FOUNDATION 和 GLOBAL CHANGE AWARDS 如何支援初創企業？

GCA 每年都會挑選 5 名勝出者，獲得總值 1 百萬歐元的獎金，當中不涉及股權或版權分享，獎金全屬勝出者所有。另外，我們為勝出者提供為期 1 年的「創新推進計劃」令獎項更加吸引。我們與諮詢公司 Accenture 及瑞典皇家理工學院共同策劃這個完全無償的計劃，帶他們到斯德哥爾摩、紐約和香港學習業內的不同知識，並為他們提供營商指導、建立他們的技術，以及開拓他們的業界、市場及投資者網絡。我們不但希望他們的事業有所增長，更期待他們有朝一日能夠改變行業。

歷屆勝出者也是初企團隊的重要資產。勝出者之間互相學習與分享的寶貴經驗，共同為行業創造一股不斷延綿的動力。我們每年都會帶過往的勝出者到斯德哥爾摩及香港，建立整個行業的生態系統及合作平台。

TECHSTYLE 初企在香港開設公司有甚麼好處？

GCA 主要支援未把產品商業化，但技術已得到認可的早期初企。我們與南豐作坊合作，為歷屆勝出者提供寶貴而強大的平台，讓他們參與 GCA 的推進計劃後，能繼續進行研發的工作。GCA 即將要支援新一屆的勝出者，南豐作坊的支援讓過往的勝出者能夠保持發展。

南豐作坊寶貴之處在於位處香港這個亞洲市場跳板，讓他們有機會認識區內的市場及行業持份者。構建生態環境和促進行業改變，不僅對支援初企的發展重要，更左右時裝行業保護地球、資源及生態環境的影響力。

“IT CAN'T
JUST BE A
SUSTAINABLE
OPTION, IT
NEEDS TO
BE BOTH
SUSTAINABLE
AND MAKE
BUSINESS
SENSE.”

「他們不只是一門
『可持續』事業，
而是可持續及商業
價值並重。」



ERIK BANG

Innovation Lead at
H&M Foundation

H&M Foundation 創新主管



Global Change Award
AN INNOVATION CHALLENGE
BY H&M FOUNDATION

THE 2030 GOAL: STARTUPS THAT TAKE ON THE RESPONSIBILITY OF SUSTAINABILITY

2030 目標： 初企擔起永續重任



GOAL
目標

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GOAL
目標

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“END POVERTY IN ALL ITS FORMS EVERYWHERE”

「消除各地一切形式的貧窮」

“ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS”

「實現性別平等，並賦予婦女權力」

Over 11% of the world population (nearly 800 million people) are living under the poverty line with a daily income of USD \$2 per person. Women are particularly affected, earning on average 12.5% less than men, as well as the additional expectation to perform household chores and provide childcare and elderly care at no compensation. On top of this, women also face threats of child marriage and sexual violence.

全球有超過 11% 人口，相等於接近 8 億人口生活在貧窮線以下，每人每天的收入少於 2 美元。而女性的貧窮情況尤其嚴重，與男性的收入差距達 12.5%，需要進行無償家務及護理工作外，更面對嚴重的童婚及性暴力威脅。

GOAL
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“ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL”

「確保健康及促進各年齡層的福祉」

All over the world, our generation is living a healthier life as healthcare becomes widely available and technology advances. However, many people still lose their lives to infectious diseases and childbirth. The average person spends one-tenth of their income on medical services throughout their lifetimes, a heavy burden especially for those living in developing countries.

雖然隨著醫療的普及和科技的進步，現代人活得越來越健康，可是，全球還有不少人口因傳染病或在生育過程中而死亡。為了對抗種種疾病，人類平均花十分之一的收入在醫療服務上，尤其對發展中國家的人口帶來沉重的負擔。

Everyone agrees that businesses bear a social responsibility to contribute to sustainable development, but what can they do exactly? In 2015, the United Nations devised the 2030 Sustainable Development Goals, providing a shared blueprint for peace and prosperity for people and the planet, now and into the future. Targeting 17 areas such as poverty, economy, health, education, human rights and environment, these goals are an urgent call for action. Here we list out 10 of the goals that are closely related to techstyle startups. These illustrate how the innovation industry can play a major role in sustainable development beyond business.

大家常聽說企業要負社會責任，為世界的可持續發展出一分力，但到底企業可以做甚麼？聯合國在 2015 年訂立「可持續發展目標」，為地球和人類的和平與繁榮訂下未來的發展藍圖。目標列明 17 項針對貧窮、環境、健康、教育、經濟、人權等範疇的急切指標。我們列出其中 10 項與 techstyle 初企有密切關係的目標，說明創新事業不僅是一門生意，也對可持續發展有重大意義。



RELATED STARTUP
相關初企

THE FABRICK LAB

The Fabrick Lab provides a safe workplace for the village women of mountainous Guizhou, saving them from poverty and reducing their risk of being exploited. During its time as an incubatee of Fabrica, The Fabrick Lab launched the “UN/FOLD” project, building batik workshops for Guizhou’s rural women to create the “UN/FOLD” collection, preserving local craftsmanship while allowing these women to earn a living using their own skills.

為貧窮女性提供安全工作場所，能減低她們被剝削的機會。南豐作坊培育計劃畢業公司 The Fabrick Lab，曾在參與計劃時於貴州進行「UN/FOLD」計劃，為當地農村婦女建立蠟染工作坊，保存當地珍貴工藝之餘，亦讓她們憑一技之長賺取收入。

THEFABRICKLAB.COM



RELATED STARTUP
相關初企

MEDEXO ROBOTICS

Humans can live healthier and for longer if affordable medical services are made accessible to everyone. Fabrica incubation program alumnus Medexo Robotics provides Parkinson’s disease patients with cost-efficient and comfortable wearable devices that help them resume a more normal life.

透過降低成本，讓每個人能夠負擔得到醫療服務，是人類能夠更健康、長壽的方法。已畢業的南豐作坊培育公司 Medexo Robotics，為帕金森患者提供經濟實惠、質感舒適的可穿戴裝置，協助他們重投正常生活。

MEDEXOROBOTICS.COM

SUSTAINABLE DEVELOPMENT GOALS

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8

“ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL”

「確保有教無類、公平以及高品質的教育，及提倡終身學習」

“PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL”

「促進包容且永續的經濟成長，達到全面且有生產力的就業，讓每一個人都有一份好工作」

About 30% of children around the world do not have access to education, impairing future employment opportunities and in turn, impacting economic development. In 2017, the global unemployment rate was 5.6%, affecting mostly young adults and women. Access to education and improvement in working conditions are crucial to effectively support and sustain national productivity.

全球有 30% 的兒童得不到教育機會，影響他們長大後的就業機會及國家長遠的經濟發展。2017 年的全球失業率是 5.6%，當中以青少年的失業情況最嚴重。要推動可持續經濟，先要改善勞工的工作環境，才能有效提升國家的生產力。

GOAL
目標

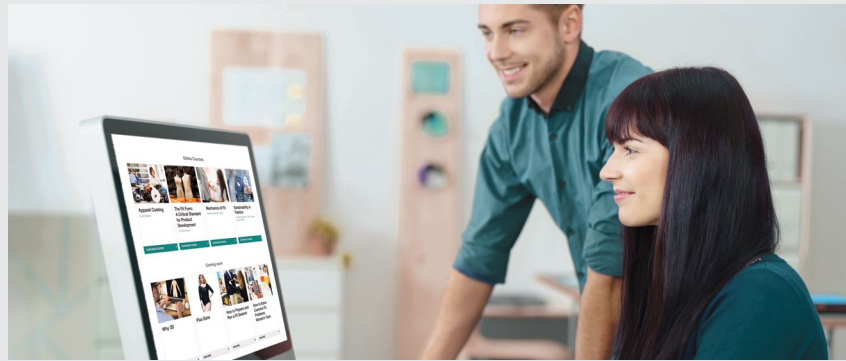
9

“BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION”

「建立具有韌性的基礎建設，促進包容且永續的工業，並加速創新」

According to UN statistics, 44.7% of the growth in manufacturing can be credited to the implementation of innovations. Innovative solutions revolutionize supply chain operations and promote information flow within the industry. These positive effects do not only promote advancements in manufacturing, but also successfully drive economic development in developing countries.

根據聯合國的數據，達 44.7% 的製造業增長，與推行創新科技有關。創新解決方案改革供應鏈運作，並促進行業內的資訊流通。這不僅推進製造業的發展，更成功帶動發展中國家的經濟發展。



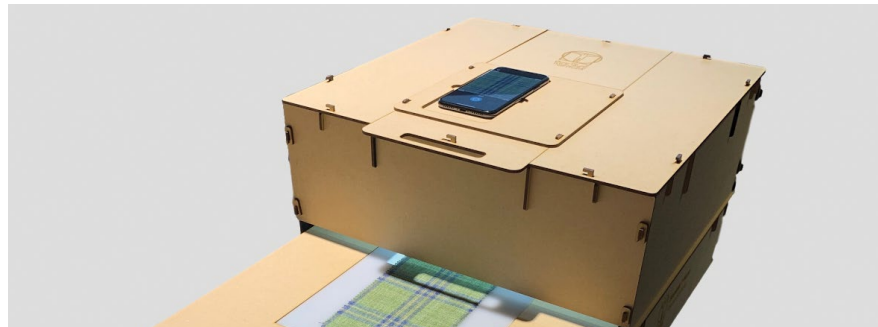
RELATED STARTUP
相關初企

MOTIF

The importance of implementing “lifelong education” is clearly outlined in the UN’s goals. The Mills Fabrica incubatee MOTIF has built a platform helping professionals in the apparel industry share knowledge, closing the skills gap faced in the industry. Please refer to page 19 for a detailed interview.

聯合國的目標清楚指出推行「終身教育」的重要性，如南豐作坊的培育公司 MOTIF 為成衣業專業人士建立知識平台，不僅幫助他們發展事業、轉移知識，並解決業內的技術斷層的問題，讓時裝及成衣業能夠持續發展。詳細訪問請閱 19 頁。

MOTIF.ORG



RELATED STARTUP
相關初企

TG3D STUDIO

By revolutionizing supply chain operations through innovative technology, we can promote advances in the manufacturing industry. Fabrica incubatee TG3D Studio enables brands to operate using digitized solutions to produce on-demand manufacturing under the Agile business model. Please refer to page 18 for a detailed interview.

透過創新科技改革供應鏈運作，有助提升製造業的發展。南豐作坊培育公司 TG3D Studio 透過數碼化解決方案，為成衣及時裝行業增值，讓品牌能夠實踐按需生產的敏捷（Agile）經營模式。詳細訪問請閱 18 頁。

TG3DS.COM

RESPONSIBILITY OF SUSTAINABILITY

GOAL
目標

11

“MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE”

「促使城市與人類居住具包容、安全、韌性及永續性」

In recent years, rapid urbanization around the world has brought enormous pressure to emerging cities in terms of traffic, environment, and housing. According to 2016 statistics, the emission of particulate matter (PM2.5) in 91% of cities worldwide have by far exceeded the World Health Organization (WHO) standards and over 4 million people have died of air pollution-related illnesses.

近年全球急速城市化，為新興城市的交通、環境、住屋等範疇帶來沉重壓力。根據 2016 年的數據，全球 91% 的城市的懸浮粒子（PM2.5）排放量，遠超世界衛生組織的標準，更有超過 400 萬人死於空氣污染相關疾病。



RELATED STARTUP
相關初企

LUMOS

With urbanization comes constant traffic congestion, pollution and rising carbon emissions. In response to this, the startup Lumos has designed a wireless remote-controlled helmets for cyclists, encouraging people to ride bikes and live a more low-carbon life, at the same time ensuring cyclists' safety on the road. Please refer to page 28 for more details.

城市化為交通網絡帶來交通擁堵、污染和碳排放等問題，更衍生出致命的交通事故。初企 Lumos 為單車駕駛者設計無線遙控頭盔，不僅鼓勵更多人駕駛單車出行、實行低碳生活，更保障單車駕駛者在路上的安全。詳情請閱 28 頁。

LUMOSHELMET.CO

GOAL
目標

12

“ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS”

「確保永續消費及生產模式」

The “material footprint”, a measure of the average waste generated by each person, grew from 5 metric tons in 2000 to 9 metric tons in 2017 among developing countries. This number is at least double in developed countries, demonstrating a causal link between economic development and resource abuse, seriously threatening our environment as more countries strive for greater economic growth.

在發展中國家，消費行為帶來的廢物由 2000 年 5 立方米噸，增加至 2017 年的 9 立方米噸。而已發展國家生產廢物的數量，更加比發展中國家高出 1 倍，揭示經濟發展與資源濫用有密切關係，為環境帶來嚴重的威脅。



RELATED STARTUP
相關初企

GREEN IS THE NEW BLACK

Many major brands and companies around the world have launched sustainable projects. However, consumer habits remain largely unchanged. As a new member of Fabrica's incubation program, Green Is The New Black uses online platforms and festivals to introduce sustainable brands to the public while promoting a “conscious” lifestyle. Please refer to page 17 for a detailed interview.

即使全球不少大型品牌和企業已推行可持續計劃，但顧客的消費習慣才是問題的源頭所在。剛加入南豐作坊培育計劃的 Green Is The New Black 借網上平台及生活節，向大眾介紹可持續品牌及推廣「有意識」生活方式。詳細訪問請閱 17 頁。

GREENISTHENEWBLACK.COM

GOAL
目標

13

“TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS”

「採取緊急措施以因應氣候變遷及其影響」

Climate change is the greatest challenge our planet faces. Nevertheless, industries continue to emit greenhouse gas and contribute to global warming, with 2017 recorded as the third warmest year in history. To solve this problem, 168 countries have signed the Paris Agreement in 2018, committing to working together toward reducing carbon emissions.

氣候變化是地球面臨的最大危機。可是，各國工業不斷排放溫室氣體，加劇全球暖化問題，2017 年更是有紀錄以來第三暖的年份。為了解決問題，全球已經有 168 個國家及地區在 2018 年簽署巴黎協定，正式落實減排目標。

GOAL
目標

15

“PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS”

「保護、維護及促進陸域生態系統的永續使用，永續的管理森林，對抗沙漠化，終止及逆轉土地劣化，並遏止生物多樣性的喪失」

Over-cultivation of farmland has decreased the total amount of forest land by over 100 million hectares over the last 15 years, causing irreparable ecological and economic damage. Conscious efforts need to be made in our consumption of not only food, but clothing, medical care, and energy, in order to slow down the damage we are doing to our environment.

除了糧食，服裝、醫療以至能源等生活中的多個環節，都關係到農作物的收成。過度耕作導致土地永久受損，土壤枯竭或土地退化更導致生產力下降。過去 15 年全球森林總數減少 1 億公頃，這不但影響到經濟發展，更危害到生態系統的多樣性。



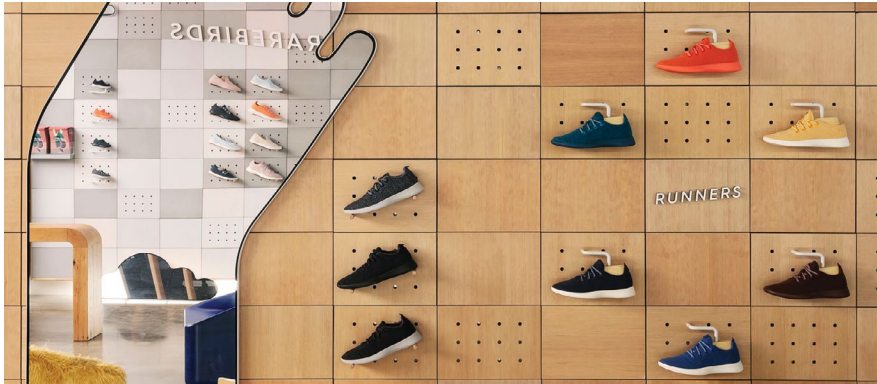
RELATED STARTUP
相關初企

UNSPUN

Accounting for 10% of global carbon emissions, the fashion industry's supply chain must be fundamentally disrupted to effectively reduce the industry's overall carbon footprint. Incubated by The Mills Fabrica, Unspun has developed a 3D weaving technology and sources sustainable materials to produce durable, customized jeans using on-demand manufacturing. The brand also has a mission to reduce the world's carbon emissions by 1%.

時裝行業佔全球 10% 的碳排放量——要改變供應鏈的運作模式，才能有效減低行業的整體碳排放量。南豐作坊培育公司 Unspun 藉 3D 編織科技及可持續採購，按需生產耐穿的客製化牛仔褲，並以減低全球 1% 碳排放量為品牌使命。

DENIMUNSPUN.COM



RELATED STARTUP
相關初企

ALLBIRDS

Starting from the source and breaking the vicious cycle of over or improper cultivation and loss of raw materials, American shoe startup Allbirds uses recyclable wood and wool to fabricate their breathable, washable shoes. Designs are also kept simple to reduce the need for accessories and stitching.

過度或不當耕作、原材料失收、產品成本上漲——要解決惡性循環，唯有從源頭做起。來自美國的鞋履初企 Allbirds，採用可再生的木材及羊毛，同時減少鞋子上的配件，希望能減輕地球的負擔。

ALLBIRDS.COM



FABRICA'S INCUBATION PROGRAM CONSTRUCTING A SUCCESSFUL PLATFORM FOR STARTUPS

南豐作坊培育計劃 為培育公司搭建成功平台

Dedicated to promoting techstyle innovation and helping startups succeed, The Mills Fabrica incubation program focuses on three main areas: materials and supply chain innovation, wearables and products merging technology and style, and new retail experiences. So far, a total of 15 companies have participated in the incubation program. Some, such as Goxip and Origami Labs, are already demonstrating outstanding performance in the market. We have recently welcomed three new startups, TG3D Studio, Green Is The New Black, and MOTIF who we have high hopes for!

南豐作坊致力推動 techstyle 創新，透過商業培育計劃締造本地初企成功故事。其中，「物料及供應鏈創新」、「揉合科技與時尚的可穿戴產品」及「新零售體驗」，是南豐作坊三大培育範疇。培育計劃共有 15 家培育公司，而 Goxip 及 Origami Labs 等公司已順利畢業，並在市場上得到驕人成績。南豐作坊將延續培育初企的使命，最近歡迎 3 家來自不同範疇的初企：TG3D Studio、Green Is The New Black 和 MOTIF，加入商業培育基地的大家庭。

A CONSCIOUS LIFE ATTITUDE: GREEN IS THE NEW BLACK

有意識生活態度：
GREEN IS THE
NEW BLACK

GITNB



WHAT DOES GREEN IS THE NEW BLACK DO?

Green Is The New Black is a lifestyle online media platform committed to achieving two goals: to help individuals live more consciously and to connect individuals to responsible brands by amplifying their sustainability initiatives. We also manage Asia's first Conscious Festivals in both Singapore and Hong Kong, gathering more than 10,000 attendees.

WHAT ATTRACTED YOU TO JOIN FABRICA'S INCUBATION PROGRAMME?

We joined The Mills Fabrica's incubation program for several reasons. Firstly, we share the same values, as we want to make sustainable fashion trendy, cool and mainstream by leveraging innovation and technology. Secondly, we love the Fabrica team and invited several of their key representatives to our Conscious Festivals in Singapore. Finally, our goal this year is to create meaningful partnerships between big corporations and smaller innovative organizations. We strongly believe that The Mills Fabrica will help us achieve that goal.

WHAT MAKES THE PROGRAM APPEALING?

The program is highly attractive. It connects us to the world of fashion all the way from big groups and corporates to startups. This will change the game in sustainability. Plus, the space offered by the program is simply amazing and so inspiring. Through Fabrica's network, we hope to connect with corporates that would like to increase media exposure through sustainability projects, as well as other "conscious" fashion brands from around the world.

HOW DO YOU MAKE AN IMPACT IN THE SOCIETY?

As a media platform, we want to make it easy for everyone to take some #littlegreensteps on a daily basis. This collective power will add up to make a huge impact. Our content is accessible, fun and engaging. We also curate a community of 120 conscious brands in fashion, beauty, lifestyle and F&B across 8 countries in Asia, which allows our readers to purchase products from brands with an environmental and/or social impact.

WHAT ARE THE STARTUPS' CURRENT CHALLENGES?

By 2020 we would like to increase our online visibility and traffic. To achieve this goal, we need to create high quality content including articles and videos. Moreover, we need to on-board hundreds of brands every month.

WHAT ARE YOUR SHORT-TERM PLANS?

We want to organize Conscious Festivals in Paris and expand our community of conscious brands to 1,000 organizations worldwide.

GREENISTHE
NEWBLACK.COM

GREEN IS THE NEW BLACK 的主要工作是甚麼？

我們是一個生活化的網上媒體平台，兩大目標分別是幫助大眾實行「有意識」的生活方式，以及為他們介紹有責任的品牌。我們也在新加坡和香港舉辦「Conscious Festivals」，並成功吸引超過 10,000 人進場參與其中。

是甚麼吸引你參加南豐作坊的培育計劃？

我們加入南豐作坊主要因為幾個原因：首先，我們擁有共同的價值，同樣希望藉著創新及科技，使可持續時裝成為時尚、有型的主流態度。另外，我們喜愛南豐作坊團隊並邀請他們的代表，參與我們在新加坡舉行的「Conscious Festivals」生活節。我們今年的目標是跟大集團及創新機構合作，相信南豐作坊將會幫助我們達成目標。

計劃的吸引之處在哪？

計劃非常吸引，連接我們到全球的時裝集團、企業及初企，共同扭轉行規，並達至可持續發展的目標。同時，計劃提供的工作空間也非常有意思，為我們帶來不少啟發。因此，我們希望借南豐作坊的網絡，認識希望藉可持續方針提升媒體曝光度的企業，以及來自全球的「有意識」時裝品牌。

你們如何在社會上導致改變？

作為媒體平台，我們希望每個人都能夠實行「#littlegreensteps」的生活習慣，集全球的力量成就具影響力的改變。我們的內容容易消化、有趣、非常吸引讀者。我們的社群裏，有來自 8 個亞洲國家的 120 個「有意識」時裝、美妝、生活時尚及食品品牌。我們希望讀者能夠透過購買他們的產品，為改善環境和社會出一分力。

你們當前的挑戰是甚麼？

在 2020 年前，我們希望增加網上的曝光度及瀏覽量。因此我們要創造具品質的文字及影片內容。此外我們希望拓展我們的品牌社群，希望每個月有過百家中新品牌上架。

你們短期的計劃是甚麼？

我們希望在巴黎等地舉辦「Conscious Festivals」，並在 2020 年前開拓「有意識」的品牌到 1,000 個品牌。



ONE-STOP FASHION TECHNOLOGY: TG3D STUDIO

一站式時裝科技：TG3D STUDIO

TG3D



ABOUT TG3D STUDIO 關於 TG3D STUDIO

TG3D Studio revolutionizes the norms in the fashion industry through digital solutions. By integrating important aspects of the apparel industry, the innovative product series Scanatic™ allows brands to achieve the business model of sustainable on-demand manufacturing.

TG3D Studio 透過數碼解決方案扭轉時裝行規，其 Scanatic™ 創新產品系列結合成衣事業的重要環節，讓品牌實踐可持續的按需生產經營模式。

WWW.TG3DS.COM

PLEASE BRIEFLY INTRODUCE TG3D STUDIO.

We are TG3D Studio, a fashion technology company on a mission to transform the fashion industry through digital solutions. The tools available through our innovative Scanatic™ product lines allow brands to combine essential components of the apparel business (body measurements, fabrics, accessories, patterns and garments) and offer more sustainable, on-demand business models.

Developed under one roof, our technology helps everyone in the value chain understand the physiques of their target consumers while offering an underlying framework for building unique and striking brand value propositions.

WHY DID YOU CHOOSE TO SET UP THE COMPANY IN HONG KONG?

Hong Kong is a top sourcing hub for many fashion brands, which provides an opportunity for us to meet all prospective customers. Also, the startup culture in Hong Kong is still growing, hence it is easy to set up a company here with a minimum level of restrictions and bureaucracy. Even though the city is highly geared towards finance, tourism, and real estate, there is a motivation to reinvigorate Hong Kong's textile heritage among groups like The Mills Fabrica, as they attempt to conciliate technology with the textile industry.

WHAT KINDS OF STAKEHOLDERS ARE YOU LOOKING FOR?

We hope to receive support in promoting the sustainable on-demand and agile business models through our end-to-end Scanatic™ solution to the industry. Also, we appreciate stakeholders that introduce us to big players and key decision makers in the industry. Likewise, we want to connect more with like-minded startups, go-getters and change-makers in the fashion industry, as well as potential customers through The Mills Fabrica's guidance.

WHAT KIND OF SUPPORTS DO YOU EXPECT TO RECEIVE FROM THE FABRICA INCUBATION PROGRAMME?

We hope to receive guidance and mentorship from Fabrica's program. We expect to become a part of an ecosystem of doers and like-minded entrepreneurs. We are one of the startups that participated in the last Global Sources Startup Launchpad and StartmeupHK Festival with The Mills Fabrica in January. These events were all very successful in terms of the exposure and connections we made. We have also settled down in the co-working space and the Lab. Furthermore, our technology is demonstrated in Fabrica Lab and Techstyle X experiential store, which allows users to better understand the product capability and how it can benefit them in the digital era.

WHAT ARE YOUR FUTURE PLANS?

We have recently launched our Xperience LAB Initiative (<https://xperiencelab.tg3ds.com>) to further connect with anyone wanting to explore the ways of streamlining their current practice with 3D digital assets. So that's something we are looking to expand to more locations. Also, we are about to commercialize our portable version of the 3D body scanner. It can be used in almost any location, as well as on motorized vehicles such as a van. We are also preparing to launch a leasing program for 3D body scanners in the Greater China region. It will make the product much more affordable and lower the bar for any customers interested in digitizing their business.

PLEASE TELL US YOUR MOST THRILLING MOMENT AS AN ENTREPRENEUR.

Besides the substantial responsibilities we bear for the company and the many hats we wear to keep the company functioning, each day is super exciting knowing that we are one step closer to making significant changes that help the world become a better place.

能簡短介紹一下 TG3D STUDIO 嗎？

TG3D Studio 是一家為借數碼化方案改寫時裝行業的科技公司，我們的 Scanatic™ 創新產品，綜合服裝行業裏多個必須的步驟（量身、面料、配件、打樣及成衣），幫助品牌實行可持續的按需生產模式。我們的科技讓價值鏈裏的從業人員了解目標顧客的體型，幫助他們建立獨一無二、具突破性的品牌價值主張。

為甚麼在香港開設公司呢？

香港是首屈一指的時裝採購中心，讓我們有機會接觸潛在顧客。香港的初創風氣在成長當中，在這裏開設公司的限制極少、制度簡便。即使香港主要集中發展金融、旅遊和地產行業，也有不少像南豐作坊的有心人，借科技重振昔日香港紡織業的風采。

你們未來想接觸甚麼持份者？

我們希望業界透過點對點的 Scanatic™ 解決方案，了解可持續按需生產模式及敏捷（Agile）經營模式的好處。我們也期望識更多業內的領袖及決策者，以及與我們擁有相同理念的時裝初企、實幹型創業家和變革者，並透過南豐作坊接觸更多潛在顧客。

你們期望南豐作坊培育計劃帶來甚麼支援？

我們希望南豐作坊給予我們具價值的建議與指導，並牽引我們成為初企生態環境裏的其中一員。我們在南豐作坊的帶領下，在今年一月參與由 Global Sources 及投資推廣署舉辦的 Startup Launchpad 和 StartmeupHK，成功拓闊了人際網絡。我們已在南豐作坊的共同工作空間裏安頓下來，並在南豐作坊 Lab 及體驗店「Techstyle X」中展示我們的科技；用家可了解產品能如何幫助他們在數碼化年代抓緊機遇。

未來有甚麼大計嗎？

我們剛發佈了「Xperience LAB」計劃，連結更多有興趣藉 3D 數碼產品精簡工序的人。我們希望開發更多推行計劃的地點。同時，我們正準備商品化便攜式 3D 人體掃描器，讓用戶可以在小型貨車等地方用到掃描器。我們即將在中國內地發佈 3D 人體掃描器的租用計劃，為更多有興趣實行數碼化的顧客提供實惠價格，從而降低使用我們產品的門檻。

作為創業家最鼓舞的一刻？

除了承擔公司內的多重責任，我們還得維持著公司正常運作，面對「十個鍋子九個蓋，蓋來蓋去不穿幫」的挑戰。可我們每天都過的非常興奮，因為你知道自己每天所做的決定，讓世界變得更美好又近了一步。



PROFESSIONAL KNOWLEDGE PLATFORM FOR CLOTHING: MOTIF

專業成衣知識平台：MOTIF

MOTIF



ABOUT MOTIF 關於 MOTIF

Powered by Alvanon, MOTIF is the apparel knowledge hub that connects professionals around the world with the skills and industry expertise they need to transform their businesses, lives and careers.

MOTIF 由 Alvanon 全力策動，為全球成衣業內專業人士搭建知識平台，透過提供專門技術及知識，幫助他們建立事業、生活方式及職業生涯。

MOTIF.ORG

WHEN WAS MOTIF ESTABLISHED?

Founded in February 2017 by its parent company Alvanon, MOTIF meets the urgent needs of fashion brands and retailers in employee training and professional development. In an industry with consistently changing consumer demands, the need for a heightened awareness in sustainability, changing technologies, and industry skills gap is becoming increasingly evident.

We launched our website motif.org in October 2018, with a mission to bridge this gap by providing online training that helps fashion industry professionals future-proof their careers and businesses. Our courses target both individuals in the industry as well as corporate HRs or business teams that need to make sure employees have sound fundamentals and cross-functional understanding. Currently, we offer 4 online training programs, with a plan to expand to 12 programs by the end of 2019. These courses cover technical skills as well as commercial and soft skills.

WHY DID YOU CHOOSE TO SET UP THE COMPANY IN HONG KONG?

We see two advantages in setting up a business in Hong Kong. The first is the ease of doing business here, with transparent, efficient business registration and a great infrastructure that supports small businesses. The second advantage is its geographic location – HK remains a hub for everything going on in Asia and it maintains strong connections with all global markets both physically and commercially. In the apparel industry, we are at China's doorstep while we enjoy easy access and proximity to all other emerging manufacturing markets in Asia. It is also an exciting time to be in Hong Kong as the city reinvents itself at the forefront of innovation and design in the fashion industry.

WHAT ARE YOUR CURRENT CHALLENGES?

As a new company, our biggest challenge lies in building an image to attract users and content collaborators from across the industry. We need to scale up our content library as well as continually add a “WOW” factor to the customer experience on our platform. We cannot seem to do everything fast enough! This is why we need resources, especially time and funding for digital marketing and B2B sales, as well as for attracting and creating more content. Our team is small with five full time members and we are planning to expand this year by adding more staff in development, digital marketing and sales support.

HOW CAN THE FABRICA INCUBATION PROGRAMME PROVIDE ASSISTANCE TO YOU?

The Mills Fabrica program is extremely attractive to us because it represents a future industry in Hong Kong. The Mills initiative is a magnate in the traditional textile industry. It blends innovation and technology with apparel. At MOTIF, we want to provide a platform to showcase and disseminate knowledge, innovation, and expertise. In addition, the incubation program is attractive as it provides access to a beautiful co-working and event space at The Mills and gives us the opportunity to interact with Fabrica's network of professionals in Hong Kong, neighbouring regions, and beyond.

PLEASE TELL US ABOUT YOUR MOST EXCITING EXPERIENCE SINCE THE LAUNCH OF MOTIF.ORG

The most thrilling experience is getting our first customers! After our launch last October, we had our first corporate team signing up to train their product development teams with MOTIF in early December. This was a huge win for us because we started to see market validation for what we wanted to do. Likewise, we were thrilled to find our first outside partners to work on program development together. TaF.tc of Singapore and BF+DA from New York were our first two content partners outside of Alvanon. Again, that validates our work and vision in creating products that the industry truly needs.

MOTIF 是甚麼時候成立的？

MOTIF 在 2017 年 2 月由母公司 Alvanon 成立，解決時裝品牌和零售商的迫切需要，為他們的員工提供專業發展訓練。時裝及成衣行業面對顧客需求改變、對可持續發展的關注提升，以及日新月異的科技，業內的技術斷層越來越明顯。因此我們在 2018 年 10 月發佈 motif.org，為專業人士提供網上課程，填補業內的不足，以及建立他們的職業生涯及事業。我們的課程為業內人士、企業人事部門及業務發展團隊而設，提供基礎及跨部門的知識。我們現有 4 個網上課程，希望在 2019 年底前增加至 12 個，內容涵蓋專業技術、商業及軟技能等範疇。

為甚麼選擇在香港開設公司？

在香港開設公司有兩大優點：第一，在香港開展事業的便利度很高，公司註冊的過程快捷、具透明度，而且擁有完善的配套支援事業發展。其次是地理位置：香港仍然是亞洲各行各業的樞紐，不論是人際關係還是在營商的層面上，都擁有全球性的強大網絡。在成衣行業裏，我們鄰近中國，方便我們走訪區內的新興製造業基地。在香港創業令人振奮，因為這個城市自我重疊成為時裝業的創新及設計先鋒。

你們當前的挑戰是甚麼？

作為一家新公司，最大的挑戰在於建立市場關注度，吸引更多業內人士及課程內容的合作機構。我們要擴大我們的內容庫，不斷為我們的顧客提供令人驚喜的體驗。我們需要走的更快！因此我們需要資源，特別是時間與資金，用作發展數碼行銷和 B2B 銷售，並吸引更多優秀的課程加入我們的平台。現在，我們的團隊只有 5 名全職員工，正計劃招聘更多人手，拓展業務、數碼行銷和支援銷售服務。

南豐作坊培育計劃能怎樣幫助到你們？

南豐作坊的培育計劃非常吸引，象徵著未來香港的未來產業。南豐紗廠揉合科技及成衣工業，把傳統的紡織知識和創新發展共冶一爐：就如 MOTIF 提供平台散播知識、提供專業技能、展示創新科技。此外，培育計劃為我們提供完善的工作空間及活動場地，同時給予我們機會與本地、區內以至全球業內人士的接觸。

MOTIF.ORG 推出以來最振奮的經歷？

最振奮的莫過於吸引到首個客戶！我們在去年 10 月正式推出市場，在 12 月初便有企業選用我們的產品開發課程。這對我們來說是一個勝利，因為我們看見市場對我們的認可。另外，我們很高興找到開發教程的夥伴，他們是分別新加坡的 TaF.tc 及來自紐約的 BF+DA — 同樣地，他們的參與肯定了我們的工作，也為行業創造所需的產品。



TECHSTYLE FUTURES: ENVISAGING TOMORROW'S INNOVATIONS AND DESIGNS

TECHSTYLE FUTURES
想像創新設計未來可能

TECHSTYLE FUTURES: THE FUTURE OF DESIGN

設計的未來



The Techstyle Futures symposium in May was held in collaboration with “Great British Design” by the UK’s Department for International Trade. The event began with the welcoming speech by Vanessa Cheung, Managing Director of Nan Fung Development Limited and Founder of The Mills. Ray Zee, Chief Designer of Nan Fung Development Limited, shared the anecdote of the revitalization process of The Mills, followed by Paul McComb, the Director General Trade & Investment of the UK Department for International Trade, who illustrated the legendary British design with the audience and drew on the close partnership between the UK and Hong Kong. Especially as for the first time, Great Britain is the official partner country of Business of Design Week (BODW) 2019. Organized by Hong Kong Design Centre (HKDC), this December, BODW will bring together some of the world’s most outstanding design masters and influential business figures to Hong Kong.

The event saw techstyle startup founders from Hong Kong, Taiwan and Singapore share the impact of design on entrepreneurship: Unspun’s co-founder Walden Lam gave insight into ‘organizing design in a chaotic startup environment’, while Quinn Lai, co-founder of EONIQ shared his story of designing a great brand here in Hong Kong. The afternoon session explored how technology is empowering

Following the success of its first Techstyle Futures symposium held in November last year, Fabrica hosted the second edition in Hong Kong in May and made its debut in London in June. The symposium convened speakers from startups, corporates, academic and research institutes to foster conversations between stakeholders and envision the future of techstyle innovation and design. It also acted as an opening event for the road to Business of Design Week (BODW), organized by Hong Kong Design Centre (HKDC) with Great Britain as its official partner country, which will be held in Hong Kong this December.

自去年 11 月首次舉辦 Techstyle Futures 研討會，南豐作坊再次在 5 及 6 月，於香港和倫敦兩地舉辦兩場 Techstyle Futures 研討會，邀請初企、大型企業、學術及研發機構等多個界別的演講嘉賓，希望鼓勵不同持份者的對話，並共同構想 techstyle 創新和設計的前景與未來發展。而這也是香港設計中心於 12 月在香港舉辦、以英國為合作國家的設計營商周（BODW）的頭炮活動。



HONG KONG

design with talks from Browzwear’s CEO, Sharon Lim discussing the application of digital design, and Miniwiz Founder Arthur Huang speaking about the great potential of creating the resource for the future using the items we discard, Origami Labs CEO Kevin Wong dove into the details of the design of its ORII ring; the future of screen-free interactions, which was followed by a presentation from Lumos CEO Eu-wen Ding about their Lumos Helmet – when tech meets design to save lives. Hervé Haubursin, Marketing Manager of TG3D Studio also highlighted the use of digital technology to empower the fashion industry through their innovative technology.

Several speakers mentioned the impact of innovative design on supply chain management such as Dr. Edmund Lee, the Director of Hong Kong Design Centre and Garrett Winther, the partner of HAX. While Marcus Lui, Executive Director of Design Thinking in Action and Bosco Leung, Senior Corporate Strategy Manager at MTR Corporation Limited shared the power of design thinking to the audience. The academic sector also took part in the event: Professor Coral Puig, the Adjunct Assistant Professor at HKUST, emphasized the importance of design in engaging with consumers’ psychological behaviors and said, “Innovation does not only happen through utility, but it happens through experience. So, design has the main role to play when it comes to consumers’ experience.”

南豐作坊與英國國際貿易部的「Great British Design」，於 5 月合辦的 Techstyle Futures 研討會。活動先由南豐發展有限公司董事總經理及南豐紗廠創辦人張添琳作歡迎致辭；隨後，南豐發展有限公司設計總經理徐莊德分享活化南豐紗廠的點滴。活動也邀請到英國駐香港總領事館副總領事（貿易投資推廣總裁）Paul McComb，向來賓分享英國的傳奇設計，以及港、英兩地的合作。香港設計中心在 12 月舉辦設計營商周（BODW），英國將首次成為活動的合作國家，屆時將會有具影響力的設計大師及商界領袖來港參與活動。

這次活動邀請了一班來自香港、台灣和新加坡的 techstyle 初企創辦人，到場分享設計對創業的影響：Unspun 共同創辦人林凱銘分享在混亂中經營初企的經歷；EONIQ 創辦人黎鈞國講述其開展香港品牌的經過。活動的下午部分，初企繼續分享科技如何推動設計。Browzwear 行政總裁 Sharon Lim 分享數碼化設計的應用；Minwiz 創辦人黃謙智提到廢物資源的極大潛力；至於 Origami Labs 行政總裁黃家恆，則深入分享其智能戒指 ORII 提供的無屏幕體驗。另外，Lumos 行政總裁陳有運則講述科技如何保障生命安全，而 TG3D Studio 市場經理 Hervé Haubursin，分享了他們的數碼創新如何推動時裝業發展。活動上有多個講者提到創新設計對供應鏈管理的影響，當中包括香港設計中心行政總裁利德裕博士和 HAX 合夥人 Garrett Winther。而 Design Thinking in Action 行政總監雷永泰和港鐵高級企業策略經理梁行健，更向在場觀眾分享設計思考的威力。活動也邀請了學術界的代表出席，香港科技大學商學院市場學系兼任助理教授 Coral Puig，強調利用設計緊扣顧客心理行為的重要性：「創新不是為效益而生，而是因體驗而出現。因此，顧客體驗是設計的首要任務。」

TECHSTYLE FUTURES: INNOVATIONS FOR GLOBAL CHANGE

改變全球的創新



Fabrica announced its expansion to the UK with the launch of a pilot cross-border incubation program and community events. “Techstyle Futures: Innovations for Global Change” marked the first of a series of events to be hosted outside its home city of Hong Kong. The symposium was focused on innovations and sustainability within the fashion and techstyle industry, gathering key ecosystem players and startups from Europe and Asia who shared their initiatives and vision.

Michael Charlton, Director of Investment at the Department for International Trade set the scene by highlighting the “critical spotlight” that the fashion industry is under and how many of the sustainable solutions will lie in technology. The founder of The Mills, Vanessa Cheung, shared her inspiration behind the revitalization project in Hong Kong and how now with its UK expansion, the bridging of the east and west will help build a global techstyle community. The Design Council’s CEO, Sarah Weir, then presented about “Hong Kong and Great Britain: a partnership to celebrate great design”, while Helen Palmer, Director of Materials, Textiles and Knitwear at WGSN gave insight into the shift in consumer priorities surrounding sustainability and how brands can engage with and act upon this responsibly.



LONDON

Two of the world’s leading luxury brands took to the stage to share how they are incorporating sustainable innovations within their business practices. Claire Bergkamp, Worldwide Sustainability and Innovation Director at Stella McCartney spoke about the brand pioneering new alternative materials, while Kering’s Sustainable Innovation Senior Manager, Christine Goulay, touched upon perspective – and how we, as an industry, should start to look at sustainability in a more positive light with endless possibilities, innovation and creativity. This then paved the way for the next speaker, Rogier Van Mazijk, Investment Manager for Fashion For Good, to present about their startups who are innovating across the value chain. The audience also heard from some of the world’s largest textile manufacturers and research institutions. Edwin Keh, CEO of HKRITA, stated that the planet has just 2,600 days left to turn climate change around. The solution? Innovation and experimentation. Crystal Group’s General Manager of Corporate Quality and Sustainability, Catherine Chiu, shared their sustainability framework and how it could reshape the industry and Jeffrey Hsu, Manager of R&D Center, Innovations, Marketing & Partnerships Office at Far Eastern New Century, discussed about their ethos of sustainability as a way of life, which is evident through their textile recycling solutions for the industry.

In addition, techstyle startups with a core sustainability focus presented and showcased their innovations, including a few of Fabrica’s incubatees such as Unspun and MOTIF. H&M Foundation Global Change Award alumni Algalife - turning algae into bio-fiber and eco-friendly dye and Resortecs - a dissolvable stitching thread for easy repair and recycling also shared with the guests. Followed by Renewcell, who recycles clothes by turning used cotton and viscose into new garments, and Petit Pli whose innovation has created clothes that grow with your child. Finally, Fabrica took the opportunity to welcome their first pilot incubatees in the UK: Reflaunt, a technology that promotes circular economy by connecting brands/retailers with the second hand market, and Smartzer - a platform that makes videos interactive and shoppable by adding an overlay with clickable hotspots.

南豐作坊宣布擴展到英國，開展其跨地域的培育計劃和社群活動。「Techstyle Futures: Innovations for Global Change」研討會是南豐作坊在香港以外舉辦的首個活動，聚焦時裝及 techstyle 行業內的創新及可持續發展。活動邀請了生態環境裏來自歐洲與亞洲、具代表性的公司、機構和初企分享他們的見解及願景。

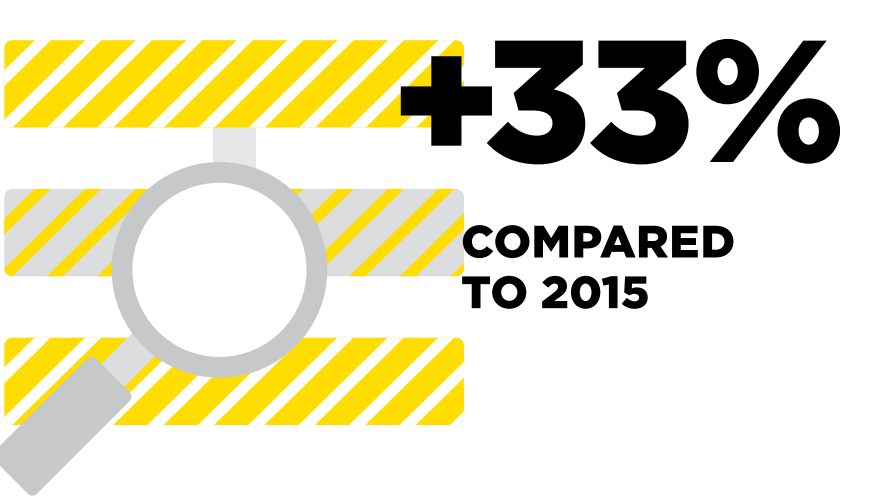
英國國際貿易部首席投資官 Michael Charlton 特別提到時裝行業正面臨關鍵時刻，強調可持續解決方案將依靠科技發展。南豐紗廠創辦人張添琳則分享了開展活化計畫背後的故事，以及南豐作坊進軍英國能如何打通歐、亞兩地，藉此建立全球 techstyle 社群。英國 Design Council 的行政總裁 Sarah Weir 隨後以「Hong Kong and Great Britain: a partnership to celebrate great design」為題，向觀眾分享她對與跨國合作的見解。至於 WGSN 的物料、紡織品及針織品主管 Helen Palmer，則講解消費者在可持續發展下偏好的變遷，品牌又如何負責任地回應消費者的需要。

兩大高級服裝品牌也在席間分享他們如何把可持續創新融入商業活動。Stella McCartney 的全球可持續及創新總監 Claire Bergkamp 提到品牌是研發新興物料的先鋒，至於開雲集團的可持續創新高級經理 Christine Goulay，認為時裝行業應正面看待可持續發展，以及其帶來的可能性、創新及創造力。之後，Fashion For Good 的投資經理 Rogier Van Mazijk 展示了他們的初企如何在整個價值鏈進行創新。活動同時邀請了全球大型紡織製造商及研發機構的參與，HKRITA 行政總裁葛儀文提到地球只剩 2,600 天扭轉氣候變化的困局。緊接著晶苑集團的集團品質及可持續發展部主管趙玉，分享他們的可持續工作框架，而台灣遠東新世紀研究發展中心經理許嘉夫，則討論到他們的可持續發展作為生活方式，在他們為行業研發的紡織物循環再造方案中貫徹體現。

活動也邀請了以可持續發展為核心的 techstyle 初企參與，向在場人士展示他們的創新發展，當中包括南豐作坊的培育公司 Unspun 及 MOTIF。而 H&M Foundation Global Change Award 的往屆勝出者 Algalife、Resortecs、Renewcell、Petit Pli 及 Reflaunt，亦分別展示其有機環保藻類染料、可溶解的環保縫線、循環再造棉花及人造絲的服裝和隨著小孩長大的童裝服飾。研討會也介紹了南豐作坊於英國的首批先導培育公司 Reflaunt 及 Smartzer，他們分別是連結品牌、零售商、二手服裝市場的循環經濟平台，以及透過添加標籤讓視頻變得互動、可購化。

INDUSTRY 4.0 IN THE INTELLIGENCE ERA A DIGITAL REVOLUTION IN SUPPLY CHAIN

One of the key focus areas for The Mills Fabrica is materials and supply chain innovation, which is becoming increasingly relevant as the traditional supply chain model is gradually being replaced by innovative solutions. In the era of Industry 4.0, how will technologies such as artificial intelligence, augmented reality and robotics affect the techstyle industry? How will they revolutionize supply chain operations? Here we present some insights from entrepreneurs in the field.



It is estimated that by 2020, as much as 83% of decisions within corporates will be data-based, a 33% increase from 2015.

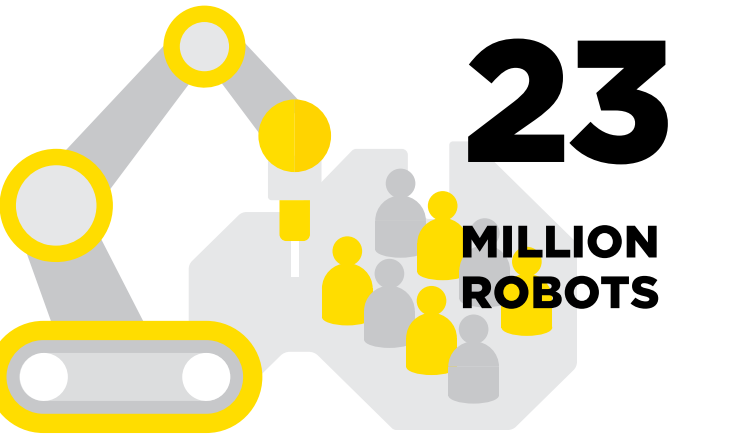
預計在 2020 年，將會由高達 83% 的企業決策將基於數據，比 2015 年高出 33%。

(PwC 羅兵咸永道)

工業 4.0 智能年代 供應鏈數碼化革命



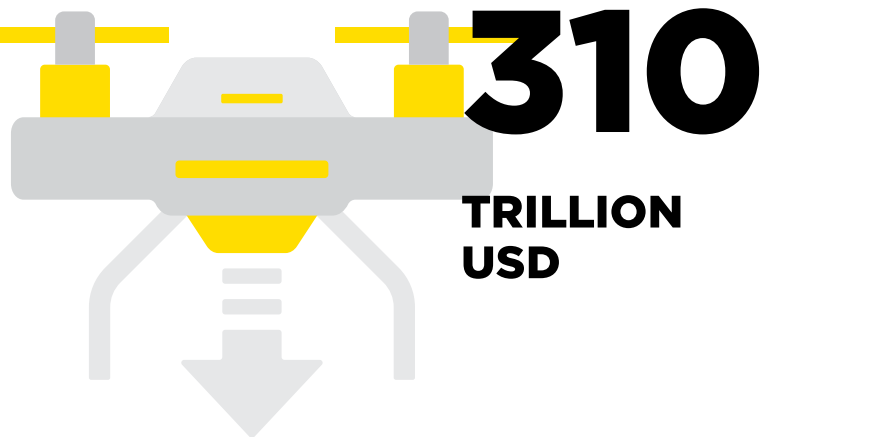
傳統供應鏈模式逐漸被創新解決方案取代，而「物料及供應鏈創新」正是南豐作坊大力推動的其中一個領域。踏入工業 4.0 年代，人工智能、擴張實景、機械人等科技，對 techstyle 行業帶來甚麼影響？又如何改革供應鏈的運作？我們為有意發展相關範疇的創業家，帶來一些啟示。



Over 23 million robots are currently in operation around the world, a number equal to the total population of Australia.

至今超過 2,300 萬台機械人在全球運作，數量相等於澳洲的總人口。

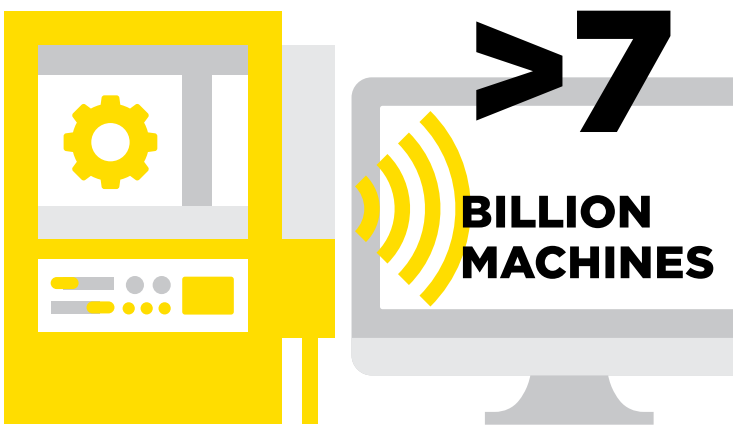
(OECD)



Drones will contribute a total of USD 310 trillion to the US economy by 2026.

無人機將會在 2026 年為美國經濟帶來總值 310 萬億美元的貢獻。

(McKinsey & Company 麥肯錫)



Over 7 billion machines are currently connected to an Internet of Things (IoT) platform.

至今全球有超過 70 億台機器連結到物聯網平台。

(IoT Analytics)

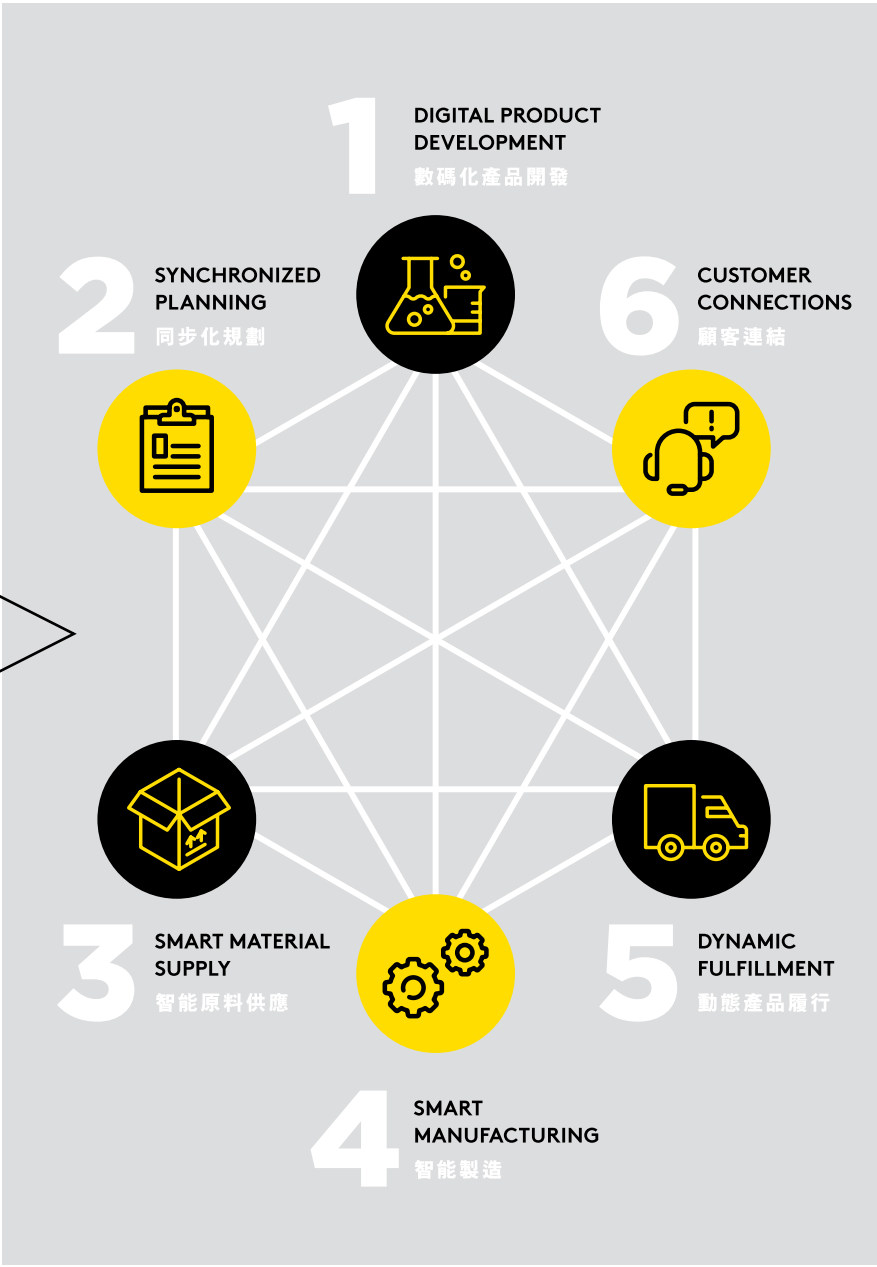
TRADITIONAL SUPPLY CHAIN

傳統供應鏈



INNOVATIVE SUPPLY CHAIN

創新供應鏈



INCREASED EFFICIENCY WITH DIGITIZED SUPPLY CHAIN

The first Industrial Revolution of the 18th and 19th centuries was propelled by hydroelectric and steam power. The second and third industrial revolutions of the 20th century emerged from accessibility to electric power and information technology. Industry 4.0, a 21st century equivalent, is fueled by the widespread application of innovative technology in digitizing the supply chain and manufacturing process.

The traditional supply chain develops in a fixed linear fashion: from product development to project planning, material procurement, product manufacturing, product delivery, and finally, customer service. While each segment of the process is closely linked to the next, the lack of flexibility prevents information from flowing directly between

different departments, affecting the company's efficiency. As technology helps businesses digitalize their supply chains, especially at the dawn of the 5G era, users and service providers can deliver more complex data to more machines thanks to faster and more stable internet speeds. The digitalization of data also allows different components of the supply chain to be integrated such as manufacturing, customer service, product R&D, and order fulfillment, resulting in greater operational efficiency, better decision-making, planning and resource allocation. Supply chain synchronization also provides real time information to product managers, allowing them to monitor the progress of each segment of the supply chain for timely risk management.

數碼化供應鏈 提升效率

18 及 19 世紀工業革命，藉水力和蒸氣發電推進當時的工業發展。隨著電力和資訊科技普及，形成上世紀的第二和第三次工業革命。至於我們現在說的工業 4.0，則是指利用創新科技數碼化供應鏈及製造過程。

傳統供應鏈以固定的線性發展：由產品開發、項目規劃、採購原料、生產成品、遞送產品到客戶服務，雖環環緊扣，卻欠缺彈性，部門間的資訊也未能即時流通，影響企業的執行效率。現今完善的網絡基建，幫助企業數碼化供應鏈。特別是 5G 年代來臨，在更快、更穩定的網速下，用戶和服務提供者能傳送更多、更複雜的數據，也能連結到更多的機器，將生產、顧客服務、產品研發、訂單履行等供應鏈內多個範疇打通。這不僅為企業發展物聯網平台奠下契機，也有效促進企業的運作效率、決策能力及資源調配。管理人員能借更精準的數據，規劃及調配人手和資源：

而同步化的供應鏈，也為產品經理提供即時資訊，讓他們了解供應鏈內各個範疇的進度，進行及時的風險管理。

OPPORTUNITIES FOR INNOVATIVE STARTUPS IN THE VAST MARKET

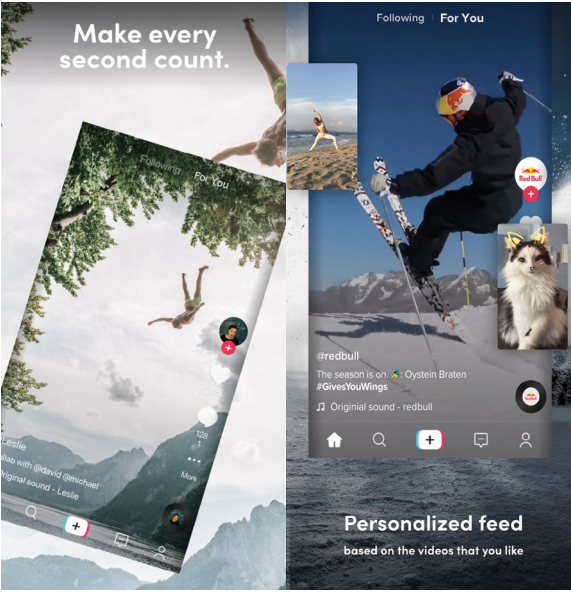
市場龐大
覓創新初企填補缺口

With the original goal to provide accurate data in on-demand manufacturing of apparel, Fabrica’s incubatee TG3D Studio developed 3D body scanning technology and smart cloud-based data analysis that has proven useful in the healthcare industry, opening the company up to many more possibilities and applications. Similarly, TikTok, a popular live streaming app developed for people to share their daily lives employed technologies such as AR and machine learning. It has changed the digital consumption habits of younger people, with many spending more time on the app than on watching television. As a result, TikTok has altered the marketing and promotion strategies of many brands, propelling its market value to reach USD75 billion.

Nevertheless, reports by Deloitte show that only 16% of the world’s companies are pioneers in supply chain innovation, while 50% of companies closely follow in their footsteps in promoting business digitization. In contrast, 23% of surveyed companies are lagging behind in establishing a long-term digital strategy. Information technology, electronics, and automotive industries have relatively more advanced digital developments while techstyle-related industries like manufacturing, retail, and consumer products are comparatively less advanced. The gap may be an opportunity for those looking to pioneer supply chain innovations.

像南豐作坊的培育公司 TG3D Studio，利用 3D 人體掃描機及智能雲端數據分析，為企業客戶提供準確的三維人體數據。其解決方案不但適合成衣及時裝行業推行按需生產模式，所得數據也能用於醫療、保健等範疇。給大家一個生活化的例子：直播軟件「抖音」興起，也是受惠於工業 4.0 下虛擬實境、機械學習等科技的發展。年輕人寧願看抖音直播也不看偶像劇的熱潮，成功吸引品牌利用抖音作為推銷商品的渠道，造就其公司高達美金 750 億的市值。

可是，根據德勤的報告指出，全球只有 16% 的公司是推行供應鏈創新的先導者，而 50% 的公司正緊隨著他們的步伐，在企業內推行數碼化。但是，仍然有 23% 的公司在工業 4.0 的年代落後於其他公司，未能建立長遠的數碼化策略。其中，資訊科技、電子和汽車是相對發展成熟的行業；反觀，製造、零售、消費者商品等與 techstyle 相關的行業，則相對處於落後的位置——正在尋找創業機會的創業家，或許這正是你大展拳腳的機會。大家不妨細心觀察這些市場內的缺口，成為推動供應鏈創新的先鋒。



INNOVATIVE STARTUPS

AREAS OF SUPPLY CHAIN INNOVATION
供應鏈創新範疇



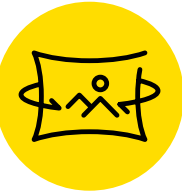
**IOT PLATFORM:
CONNECTING CUSTOMERS
AND STABILIZING
INVENTORIES**

物聯網平台：
連結顧客，穩定庫存



**NETWORK SECURITY:
PRIVACY PROTECTION
AND RISK
REDUCTION**

網絡安全：
保障隱私，減低風險



**VIRTUAL AND AUGMENTED
REALITY: SIMULATED SCENES
ENRICHES CUSTOMER
EXPERIENCES**

虛擬及擴張實景：
模擬場景，豐富體驗



**DATA ANALYSIS:
PRELIMINARY ANALYSIS
ENABLES REAL
TIME DECISIONS**

數據分析：
預先分析，實時決策



**MACHINE LEARNING:
ENHANCED PROCESSES
ACCELERATES
DECISION-MAKING**

機器學習：
推進流程，加快決策



**ROBOTICS:
QUALITY CONTROL AND
COST REDUCTION**

機械人科技：
控制品質，減低成本



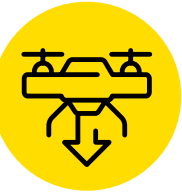
**SMART CHIP:
HANDLING
COMPLEX DATA
WITH EASE**

智能晶片：
複雜數據，輕易處理



**ADDITIVE MANUFACTURING:
FACILITATING ON-DEMAND
MANUFACTURING WITH
MULTIPLE MATERIALS**

增材製造：
多元材質，按需生產



**DRONES AND AUTONOMOUS
CAR: AUTOMATIC OPERATION
REDUCES MANPOWER**

無人機及無人駕駛：
自動操作，節省人手

THE PREDICTION OF FUTURE TRENDS IN THE TECHSTYLE INDUSTRY FROM WGSN EXPERTS

WGSN 專家 預測
TECHSTYLE 行業趨勢



“SUSTAINABILITY IS AN IMPERATIVE THAT FASHION, TEXTILES AND DESIGN COMPANIES SIMPLY CANNOT AFFORD TO IGNORE ANYMORE.”

HOW DO NEW TECHNOLOGIES FUEL THE AGE OF INDUSTRY 4.0?

At WGSN, we pay close attention to the rise of automation and data exchange in manufacturing, which we call the 4th Industrial Revolution. As modern computerized and automated systems start to become smarter, super-connected autonomous systems fully utilize data and machine learning to aggregate and analyze massive amounts of data. The systems not only perform analyses faster than the speed of humans, but also share results across a factory system. This will allow different parts of the factory to be completely connected, which maximizes efficiency and capacity while troubleshooting issues and potentially streamlining waste.

The manufacturing industry could benefit from many new technological advancements. Robots will become more autonomous as they work in tandem with operators. This “cobotic” relationship allows robots to learn from humans. The 3D simulation of materials and apparel will allow virtual images to mirror reality, allowing us to render ideas more quickly and cost-efficiently. Augmented reality tools allow operators to work with “real-time” information, improving timescale and workflow. Finally, additive manufacturing will allow companies to prototype products and create small product runs that can be made on demand, avoiding big inventory costs.

WHAT INDUSTRIES USE INNOVATIVE MATERIALS OTHER THAN THE FASHION INDUSTRY?

Smart materials fall into two different categories: those that enhance performance, and those that create responsive aesthetics. Fabrics that are visually interactive, such as the ones that change colour or glow, have been of particular interest to active industries. A few examples that come to mind include Vollebaks’ recent “The Black Squid” jacket, made from an adaptive, colour changing fabric that is able to both reflect back and scatter light to create mesmerizing effects.

Another example is the National Graphene Institute of the University of Manchester’s collaboration with the wearable tech company Cute Circuit. They co-created a graphene dress that responds to the user’s breathing patterns by changing its colour. On the other hand, Project Jacquard, which is run by Google’s Advanced Technologies and Projects unit, weaves conductive technology into fabric. In collaboration with Levi’s, they created a smart Commuter jacket that enables cyclists to activate playlists, navigate their journey, and tell the time by simply touching the material. (Editor’s note: It is currently on display at The Mills “Wearable Wall” exhibition until the end of October 2019.)

In terms of performance, smart textiles are boosting the fitness, sports, wellness and beauty industries. We have garments and fabrics that can now monitor our health, check our exposure to sunlight, and even release medication to us in micro-doses. There are materials that can cool down, moisturize, or even improve the skin’s appearance.

Technology is advancing at a tremendous speed. As a result, techstyle startup founders must be aware of current market trends to develop a promising business. For this reason, we invited Helen Palmer, the Head of Materials, Textiles and Knitwear at WGSN to predict trends in Industry 4.0 and smart materials for readers, and to discuss the relationship between innovation and sustainability development.

科技發展一日千里，techstyle 初企創辦人必須掌握當前的市場趨勢，才能發展一門有前景的事業。因此，我們邀請了 WGSN 的物料、紡織品及針織品主管 Helen Palmer，為讀者預測工業 4.0 及智能物料的趨勢，以及探討創新和可持續發展的關係。

「時裝、紡織及設計
公司再不可以忽視
可持續發展。」

新科技如何為工業 4.0 年代關注動力？

WGSN 緊貼關注自動化及數據交流在製造業的興起，我們將這稱為「第四次工業革命」(the 4th Industrial Revolution)。今天，電腦化及自動化系統開始變得越來越智能。超級連結 (super-connected) 的自主化系統，充分利用數據及機械學習合成及分析大量數據。不僅速度比人類更快，也能夠將結果分享到整個工廠的系統，有助打通工廠內的各個範疇，提升工作效率及潛力，也有助解決問題及減少廢棄。

製造業受惠於多種新興科技：機械人將會變得更自主，與系統操作者共同工作；而這「合作機械」(cobotic) 的關係，允許機械人在人類身上學習。至於 3D 模擬物料和服裝，則讓虛擬影像成真，讓我們能以更快、成本更低的方法構想點子。而擴張實景 (augmented reality) 讓系統操作者能與資訊實時工作，縮短生產時間、改善工作流程。最後，增材製造 (additive manufacturing) 將允許企業製作產品原型 (prototype)，或者製造小批量的產品，讓他們能夠實行按需生產，避免堆積庫存導致的損失。

智能物料分為兩個範疇：提升性能和創造迴響美學 (responsive aesthetics)。布料提供視覺上的互動，譬如顏色改變或會發光的布料已經提起相關行業的興趣。例如 Vollebaks 最近發布的「The Black Squid」外套，利用自適應 (adaptive) 的顏色改變物料，能夠反射背光和散射光，衍生出迷人的效果。

此外，曼徹斯特大學的國家石墨烯研究所 (National Graphene Institute) 與可穿戴科技公司 Cute Circuit，合作創造了一條利用石墨烯製成的裙子，能夠回應穿著者的呼吸節奏，並從而改變不同的顏色。而 Google 旗下的「Advanced Technologies and Projects」所研發的 Project Jacquard，把傳導科技與布料互相交織，並於 Levi’s 合作製造為單車出行者而設的外套，讓他們能透過觸碰外套啟動播放音樂、導航或報時等功能。(編按：外套正在南豐紗廠「Wearable Wall」展覽展出直到 2019 年 10 月。)

在性能的層面，智能物料提升了健身、體育、保健和美妆行業的發展。現在的布料和服裝能夠檢測我們健康情況、檢查我們的暴曬程度、釋放輕微劑量的藥物治療，也有降溫、保濕，甚至改善皮膚狀況的功能。

WGSN EXPERTS

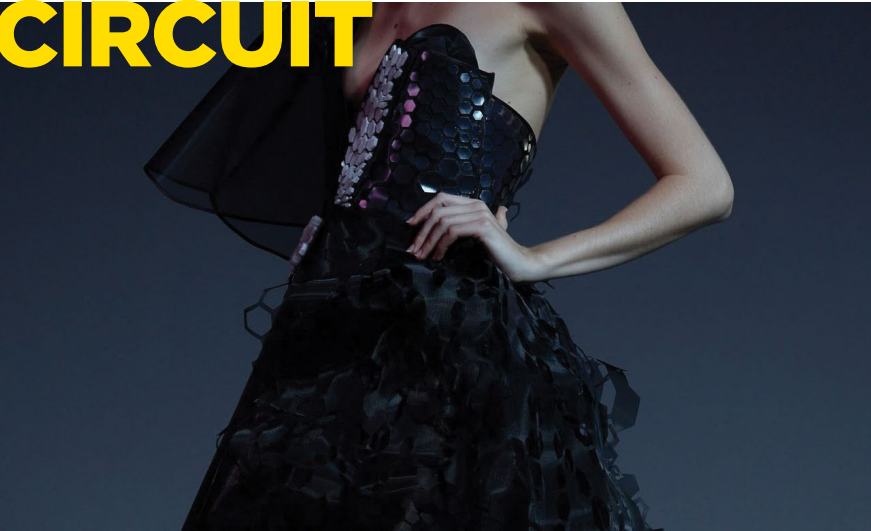
THE NORTH FACE X CHRISTOPHER RÆBURN



Designer Christopher Raeburn has developed an outdoor bag collection using recycled tents from The North Face.

Courtesy: The North Face

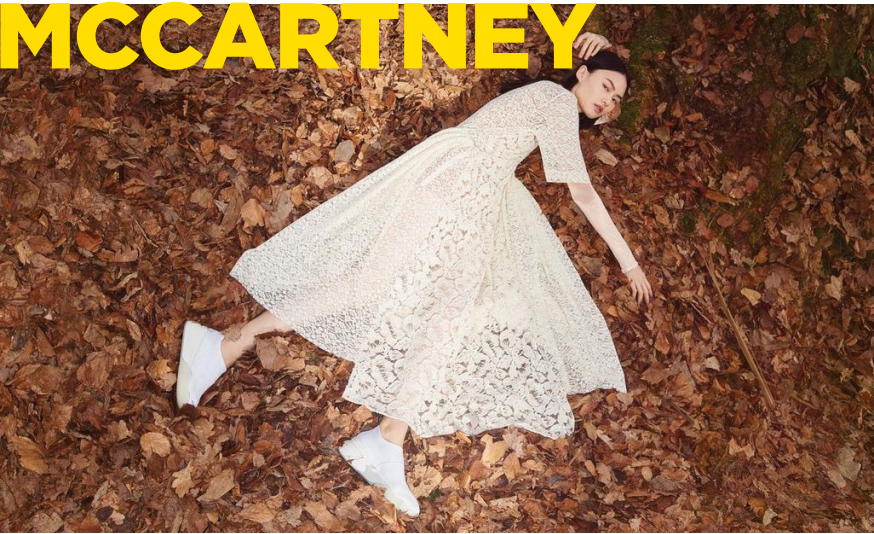
CUTE CIRCUIT



The dress developed by Cute Circuit and Manchester National Graphene Institute responds to users' breathing pattern.

Courtesy: Cute Circuit

STELLA MCCARTNEY



Stella McCartney is dedicated to developing and using vegan and cruelty-free materials.

Courtesy: Stella McCartney

THE BLACK SQUID



"The Black Squid" jacket developed by Vollebak can reflect back and scatter light.

Courtesy: Vollebak

“CSR CAN REALLY BENEFIT SOCIETY AS A WHOLE, AS COMPANIES THAT ARE SEEN TO “GIVE BACK TO SOCIETY” CAN IMPROVE THEIR PERFORMANCE, PROFIT, AND BRAND IMAGE, AS WELL AS FOSTER CUSTOMER LOYALTY.”

HOW DO INNOVATIVE SOLUTIONS ENABLE CORPORATIONS TO IMPLEMENT CSR PROGRAMS?

Corporate Social Responsibility (CSR) is becoming more visible as companies start to up the ante and make more investments in philanthropic, ethical, sustainable strategies and activities. CSR can really benefit society as a whole, as companies that are seen to “give back to society” can improve their performance, profit, and brand image, as well as foster customer loyalty.

Stella McCartney has made CSR a key mission through sustainable practices across all their business operations. With a commitment to refraining from using animal products like fur and leather, the brand is dedicated to developing new innovative cruelty-free and vegan materials. For example, they pioneered Bolt Threads' spider silk into a one-of-a-kind gold shift dress and have created a bag using Mylo's new leather-like biomaterial grown from mycelium, the underground root structure of mushrooms. Patagonia is another brand which values the importance of CSR. They have not only created some of the eco-friendliest outdoor products in the market, but also regularly communicates the brand's environmental missions across their media platforms to customers in a transparent and inclusive way. Furthermore, TOMS shoes were one of the first retailers to pledge to give back, donating one pair of shoes to a person in need for every pair sold.

IN THE FUTURE, WILL SUSTAINABLE PRODUCTS PLAY A MORE IMPORTANT ROLE IN THE FASHION/INDUSTRIAL DESIGN INDUSTRY?

Sustainability is an imperative that fashion, textiles and design companies simply cannot afford to ignore anymore. Though the industry has been very slow in implementing sustainable strategies and processes, we have recently been witnessing a rapid increase in brands of all sizes trying to transform their businesses into more sustainable models. Global retail brands such as H&M are ramping up their eco-efforts, such as their Conscious Collection made from sustainably sourced materials. E-commerce players are trying to scale up in this area too by focusing not only on products, but also the packaging. Collaboration is the key to sustainability at scale, and the industry needs to come together to make this a reality. At WGSN, we are tracking all of the latest collaborations and projects on the market to share with our clients. A great example of designing out waste is The North Face's collaboration with designer Christopher Raeburn, who has developed a range of unique bags from pre-used North Face tents. Each bag is composed of unique details, colours and fabrication.

The next generation of independent brands and startups are really leading the way in terms of creative thinking. As a result of their smaller scales, they are able to put sustainable practices into place. Current challenges include accessing available sustainable materials, finding the right suppliers for partnership, meeting minimum order quantities, and facing tight margins. However, a new breed of designers who “design out waste” rather than “design new stuff” are emerging. These designers are set to create startups and build their brands on sustainability from scratch. This new attitude will change the industry on a fundamental level.



HELEN PALMER

Director of Materials, Textiles & Knitwear at WGSN

WGSN 物料、紡織品及針織品主管

「企業社會責任能造福整個社會，而公司也視回饋社會為提升企業表現及盈利、品牌形象，以及鞏固顧客忠誠度的妙宗。」

在未來日子，可持續產品會在時裝行業扮演更重要的角色嗎？

時裝、紡織及設計公司，再不可以忽視可持續發展。過去，這些行業推進可持續方針及策略的速度非常緩慢，但最近我們看見不少品牌都加大力度，將企業轉型為可持續的模式。H&M 等國際零售品牌都不斷提升他們保護地球的力度，其「Conscious」系列便是利用可持續採購的物料所製造。此外，電子商貿推行可持續發展的工作不只是在產品上，他們同樣關注產品的包裝。合作是可持續發展的關鍵，行業需要共同努力才能有所成果。WGSN 不斷跟進最新的合作項目，並與我們的客戶分享市場上的最新發展。戶外品牌 The North Face 與設計師 Christopher Raeburn 的合作項目，是排除廢物的好例子：他們利用回收得來的 North Face 帳篷，製造多款背包，而且每一款都有獨特的細節、顏色和製作方式。

未來的獨立品牌及初創企業規模較少，有能力透過創意思考實踐可持續發展。而可持續發展充滿挑戰，不僅是可持續物料的選擇不多，要尋找合適的供應商、迎合最低的生產數量，以及微薄的利潤都反映了當前的挑戰。可是，不少新生代的設計師採取「排除廢棄」(designing out waste) 理念而非「設計新產品」(designing new stuff) 的傳統方式。這些設計師設立自己的公司，重新構建可持續品牌的定義；他們的態度是行業的先鋒，並帶來根本性的改變。

INNOVATION & SUSTAINABILITY DEVELOPMENT

12 RISING TECHSTYLE STARTUPS AROUND THE WORLD

全球 12 家備受矚目的
TECHSTYLE 初企



The techstyle industry is flourishing worldwide. In addition to the startups in Fabrica’s incubation programme, there are many other innovative businesses in the global techstyle ecosystem worthy of attention. These companies break from industry norms to introduce entirely new experiences to business partners and customers.

全球 techstyle 行業正不斷發展，除了南豐作坊培育計劃裏的初創企業，全球 techstyle 生態環境裏還有不少創新事業值得大家關注。他們突破行業常規，為企業夥伴及顧客帶來全新的體驗。

NORM 1

BASE 基地 Cologne, Germany
德國科隆

PRODUCT 範疇 Smart clothing
智能服裝



Norm is a cross-disciplinary design firm from Cologne, Germany. It specializes in blending innovative technology with textile products. In their most recent “Project MJ1,” the company produced pliable electronic modules using weaving technology. The custom-developed “magnetic plug” attaches a conductor system to the garment, forming a smart module with functions including heat generation.

Norm 是一家來自德國科隆的跨範疇設計事務所，擅長把創新科技融合在紡織產品之中。他們的最新企劃「Project MJ1」，利用紡織科技製造出可折疊的電子組件，並透過獨家研發的「磁性插頭」扣緊在衣服上的傳導系統，組成提供發熱等功能的智能模組。

SNOWCOOKIE 2

BASE 基地 Zurich, Switzerland
瑞士蘇黎世

PRODUCT 範疇 Sport devices
運動裝置



Snowcookie developed a mobile app to track and improve ski performance. It also provides 3 trackers to be worn and installed on the snowboard. The app will analyze user data such as speed, distance, and posture in real time, in addition to offering suggestions for improvement. Snowcookie won Intel’s “Make It Wearable Challenge.”

Snowcookie 開發了追蹤及改善滑雪表演的手機軟件，並提供 3 個分別配戴在身體和安裝在滑雪板上的追蹤器，軟件會實時分析用家的速度、距離及姿態等數據，並提供改善建議。Snowcookie 曾經贏得英特爾舉辦的「Make It Wearable Challenge」。

LUMOS 3

BASE 基地 Hong Kong
香港

PRODUCT 範疇 Lifestyle
生活時尚



Lumos has designed a smart bicycle helmet that allows users to wirelessly and remotely control the direction and stop indicators on the rear of the helmet, ensuring cyclists’ safety on the road. The product can be connected to Apple Watch to control helmet indicators using gestures while its mobile app can analyze distance, time, and speed. The company’s innovation has received media coverage worldwide and even made it onto TIME Magazine’s list of best inventions of 2018.

Lumos 設計的智能單車頭盔，讓用家無線遙控頭盔後的轉向和停車燈號，提升駕駛者在路上的安全。產品亦可連結至 Apple Watch，透過發出手勢控制頭盔訊號。此外，他們開發了手機軟件，分析用家每天的出行距離、時間與速度。其產品的到全球媒體青睞，並被《時代雜誌》評為 2018 年最佳發明之一。

SLEEP.AI BY SLEEPSCORE LABS 4

BASE 基地 Nijmegen, the Netherlands
荷蘭尼美根

PRODUCT 範疇 Medical device
醫療裝置



Sleep.ai is a medical device for users to wear while sleeping. The device picks up poor sleep habits such as snoring and teeth grinding, vibrating to alert the user. Data can also be downloaded for doctors to analyze the quality of sleep.

研發團隊開發了可穿戴裝置及手機軟件，用家睡覺時將裝置配戴在手臂上，並透過藍芽連結到手機軟件。軟件會記錄和分析用家鼻鼾和磨牙狀況，並借裝置的震動改善相關情況。用家亦可下載睡眠數據，轉交醫生分析睡眠品質。

VOIR 5

BASE 基地 Lake Worth, USA
美國萊克沃思

PRODUCT 範疇 Virtual reality solutions
虛擬實境解決方案



Capturing high-fidelity 3D images with the help from technologies such as computer vision and machine learning, Voir has created an application that allows users to try on a range of makeup looks by simply uploading their profile picture. By saving customers a trip to the mall, this helps cosmetic brands promote customer experience and grow their e-commerce market.

團隊借助電腦視覺及機械學習等科技，衍生出像真度極高的立體圖像。用家只需上載頭像相片，便能模擬使用不同化妝品後的樣貌，幫助美妝品牌提升顧客體驗，不用到實體店亦能試用化妝品，幫助他們開發電質市場。

BY REVEAL 6

BASE 基地 New York, USA
美國紐約

PRODUCT 範疇 Big data solutions
大數據解決方案



While e-commerce becomes more and more prevalent, startup founder Megan Berry sees value in the irreplaceable physical experience of shopping. By Reveal designs pop up stores equipped with data collection technology for growing brands to build awareness, generate sales, and test new markets. By Reveal has been used in events including New York Fashion Week.

人人朝向發展電子商貿，初企創辦人 Megan Berry 反其道而行，深信顧客的實體經驗影響品牌表現。她協助品牌舉辦只有 60 分鐘的期間商店，測試產品的市場反應，並借數據分析科技改善品牌的線上表現。解決方案已得到紐約時裝周等機構採用。



12 RISING TECHSTYLE STARTUPS

DIMPORA

7

BASE
基地

Zurich, Switzerland
瑞士蘇黎世

PRODUCT
範疇

Innovative Materials
創新物料



Dimpora stands for the combination of dimension and pore. By developing the seamless breathable membrane formed directly on any 3D surface, the startup wants to take a step forward in the established industry and innovate the next generation of sustainable and high-performance membranes for outdoor enthusiasts.

「Dimpora」代表「維度」(Dimension)和「Pore」(細孔)，致力研發於立體表面上組成的透氣、無縫薄膜層。Dimpora 希望突破發展成熟的行業，為戶外運動愛好者，研發新一代的可持續高性能薄膜。

PETIT PLI

8

BASE
基地

London, UK
英國倫敦

PRODUCT
範疇

Children's clothing
童裝



Petit Pli produces children's clothes that can stretch into 7 different sizes by using renewable ductile materials. In addition to reducing the amount of wastage, this also reduces carbon emission from the manufacturing and transportation processes. Petit Pli's manufacturer in Portugal uses solar energy as the source for 30% of its power, which effectively promotes the brand's commitment to sustainability.

小孩子長得快，童裝的壽命特別短。Petit Pli 利用可再生的延展物料製作童裝，能伸縮成 7 個不同尺寸，減少衣物廢棄外，亦減低生產及運輸過程中的碳排放量。他們位於葡萄牙的製造商，30% 的電力來源來自太陽能，有效推展品牌可持續理念。

LE QARA

9

BASE
基地

Lima, Peru
秘魯利馬

PRODUCT
範疇

Renewable materials
再生物料



Every year, the fashion industry slaughters 1 billion animals for leather. With this in mind, Le Qara's R&D team uses microorganisms in Peruvian flowers and fruits to create soft, breathable, degradable plant leather. No waste is generated during the production process, and colors, rigidity, and thickness can all be customized.

時裝業每年屠宰 10 億隻動物用作生產皮革，有見及此，Le Qara 的研發團隊利用來自秘魯的鮮花及水果中的微生物，創造出柔軟、高透氣度的可降解植物皮革，生產過程中不會排放任何廢物，亦可按需求生產訂製不同的顏色、柔韌度及厚度。

RENEWCELL

10

BASE
基地

Stockholm, Sweden
瑞典斯德哥爾摩

PRODUCT
範疇

Sustainable Materials
可持續物料



Renewcell's recycling technology dissolves used cotton and other natural fibers into a new, biodegradable raw material, re:newcell pulp. It can be turned into textile fiber, be fed into the textile production cycle and meet industry specifications. The way fashion is produced and consumed can finally be transformed into a never-ending loop.

Renewcell 的循環再造科技，分解使用過的棉花和天然物料，並製造成全新的可降解物料「re:newcell」。這不僅可以生產紡織物料，還可以滲透進整個生產週期，迎合行業需求。用這樣的方法生產出來的消費品，能夠轉化成為一個沒有缺口的循環。

SMARTZER

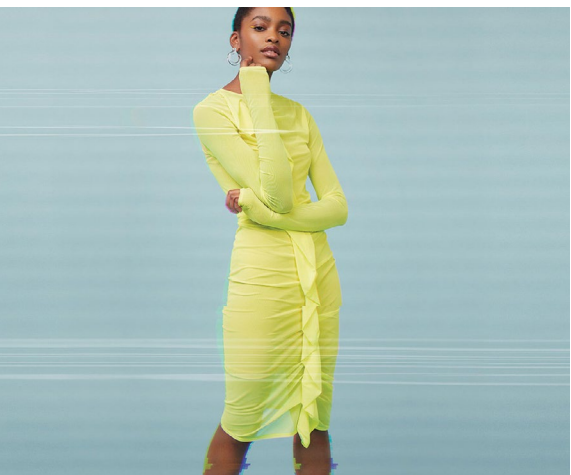
11

BASE
基地

London, the UK
英國倫敦

PRODUCT
範疇

New retail experience
新零售體驗



The Smartzer video tagging platform adds hotspots to your videos. Users can make anything in their videos clickable through its beautiful customizable interactive overlay. The interactive overlay is automatically optimized for all distribution channels including websites, social media, video ads and touch screen experiences.

Smartzer 是一個視頻標籤平台，商戶可在視頻裏添加美觀、客製化的標籤，讓視頻裏的任何東西都能點擊。經自動改良後的覆蓋式標籤，可連結到網站、社交媒體、視頻廣告和觸碰式屏幕體驗。

KNO

12

BASE
基地

Hong Kong
香港

PRODUCT
範疇

Supply chain innovation
供應鏈創新



KnoMore is the world's first real-time transparency platform - connecting brands, factories, workers and consumers. With KnoMore, the world's biggest brands with 1000s of factories can understand how ethical their suppliers are and mitigate potential risks that could cost millions. Factories see that happier workers make their business more profitable, and workers are protected 24/7.

其產品 KnoMore 是全球首個實時連結品牌、工廠、工人和消費者的高透明度平台。即使是擁有過千家工廠的品牌，只要使用 KnoMore，便可即時了解供應商的流程是否符合道德，減低損失數以百萬計的風險。產品全天候保障工人的安全，而工廠也會知道越快樂的工人，能為他們帶來更多的收入。



ABOUT THE MILLS

The Mills is a landmark revitalization project from Nan Fung Group, a celebration of shared industrial legacy with Hong Kong, and a step towards a future of applied creativity and innovation.

The Mills is composed of 3 main pillars: Fabrica, Shopfloor and the Centre for Heritage, Arts and Textile (CHAT). Building on a foundation of legacy and heritage, visitors can explore the continuity of an authentic Hong Kong story, where themes of textile and industry are woven into experiences of innovation, culture, and learning.

關於南豐紗廠

南豐紗廠是南豐集團策劃的地標式保育項目，見證香港紡織工業的承傳，並帶領本地應用創意及創新產業邁進新里程。

南豐紗廠由南豐作坊、南豐店堂及六廠紡織文化藝術館三大支柱組成。建基於集團的承傳與歷史，並以紡織和工業為根基，交織出創新、文化及學習體驗，讓訪客從中探索不斷延續而真實的香港故事。



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