

2023

APEC Digital Innovation to Facilitate SMEs' Green Transformation

APEC數位創新加速中小企業綠色轉型論壇



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Foreword

Dear Distinguished Guests,

The COVID-19 pandemic and net zero emissions objectives have brought about rapid changes in global trends; micro, small, and medium-sized enterprises (MSMEs) are at the forefront of the accompanying challenges. The pandemic accelerated the digital transformation of industries, and digital innovation has brought both opportunities and difficulties. Implementation of consensus on carbon reduction will require adjustment not only to policy measures, but also to industries' various development strategies. The most obvious emergent changes necessitate carbon reduction in the supply chain and the development of circular economy models among enterprises. Companies at all stages in the supply chain, whether large corporations or MSMEs, feel the pressure to undertake green transformation.

Accordingly, we have dedicated ourselves to promoting carbon reduction awareness among enterprises and helping MSMEs develop green transformation models. In light of the importance of green transformation for MSMEs, and their continuous engagement in the global supply chain, we launched the initiative "APEC Digital Innovation to Facilitate SMEs' Green Transformation." This initiative focuses on best practices in digital innovation solutions which support MSME development, in fields such as the circular economy and green transformation, with an aim to guide MSMEs toward effective and efficient responses to the aforementioned trends. This initiative will strengthen the MSMEs' green competitiveness and facilitate our shared goal of decarbonization and green transformation.

To carry out the project objectives, this forum has invited APEC regional experts from various industries, the public sector, and academia to share notable policy measures and best practices. This forum will examine multiple aspects of green transformation, including international trends, policy tools, awareness enrichment, digital-green solutions, and collaborative models, offering participants a more comprehensive and actionable understanding.

In addition, our on-site exhibition, "Digital Innovation Accelerating SMEs Green Transformation," showcases best practices from APEC member economies. Further, the exhibition expands participants' international exposure and shares their outstanding achievements through the APEC platform.

We are grateful to walk with APEC region MSMEs on the road of innovation and inclusive growth toward digital innovation, green transformation, and global supply chain success. We wish you all a fruitful event.

Pre-Forum Research Notes for APEC Digital Innovation to Facilitate SMEs' Green Transformation Forum

1. Green Transformation Trends in the World and the APEC Region

In the past decade, with increasing attention on carbon reduction and the escalating stress on sustainability, green initiatives and their corresponding goals have become the focus of many international fora. In 2021, the United Nations Framework Convention on Climate Change (UNFCCC) confirmed the goal of net-zero emission by 2050. Many economies thereby began incorporating carbon reduction projects into their development plans. Implementation of consensus on carbon reduction requires adjustments not only to policy measures, but also to overall industrial development strategies. This trend is particularly evident in the carbon reduction efforts of supply chains and the development of the circular economy model. Companies at all stages in the supply chain, whether large corporations or MSMEs, feel the pressure to undertake green transformation.

In 2020, APEC members endorsed the Putrajaya Vision 2040 as a means of promoting Asia-Pacific regional policies and initiatives, establishing a vision of an "open, dynamic, resilient, and peaceful Asia-Pacific community." The following year, APEC set out an agenda to implement the Putrajaya Vision 2040, the Aotearoa Plan of Action (APA), which promotes balanced sustainability and inclusive growth. In 2022, APEC leaders endorsed the Bangkok Goals on Bio-Circular-Green (BCG) Economy. Working on a premise of inclusivity, MSMEs are empowered through ESG (Environmental, Social, and Governance) programs, BCG measures, and other approaches to build the capacity that will lead to sustainability and, ultimately, to the green global supply chain.

Since 2016, Chinese Taipei has proposed a series of initiatives, such as O2O, Local Innovation Ecosystem, Cross-Domain Innovation Ecosystem, and SMEs New Paradigm of Digital Resilience, compiling successful cases from member economy SMEs to bridge the exchanges and communications between APEC members. As green transformation has become a critical issue for MSMEs in joining global supply chains, Chinese Taipei has accordingly proposed the initiative of "APEC Digital Innovation to Facilitate SMEs' Green Transformation," with the hope of driving MSMEs' green transformation through both policy exchanges and the promotion of digital application best practices in the circular economy, energy saving, and carbon reduction, so as to achieve sustainability and inclusive growth.

2. Bilateral and Multilateral Cooperation Frameworks for MSMEs' Transformation Between Member Economies

Ministerial statements and leaders' declarations have clearly manifested APEC members' attention to and effort toward both digital and green transformation. APEC members have further launched bilateral and multilateral frameworks toward the same aims. The following is a summary of key cooperation frameworks in recent years:

(1) ASEAN Comprehensive Recovery Framework

In acknowledgment of the impact of the COVID-19 pandemic on its members at all levels, the Association of Southeast Asian Nations (ASEAN) adopted the ASEAN Comprehensive Recovery Framework (ACFR) in the ASEAN Economic Community Council meeting in 2020. As a collective long-term socioeconomic recovery strategy, the framework set out five broad strategies as the keys to overseeing ASEAN in post-pandemic recovery, including:

- A.Strengthening public health systems;
- B.Reinforcing human security;
- C.Expanding the potential of the ASEAN internal market and broader economic integration;
- D.Accelerating inclusive digital transformations; and
- E.Promoting a future of sustainability and resilience.

Among them, the key strategy of "accelerating inclusive digital transformation" consists of "the promotion of e-commerce and digital economies" along with the digital transformation in governments and for MSMEs. To implement the digital transformation strategies in the recovery framework, the focus is specifically on MSMEs' digital skills and market entry. The associated Go Digital ASEAN program aims to build and train MSMEs' digital capacity.

(2) Singapore-Australia Green Economy Agreement

In October 2022, Australia and Singapore signed the world's first Green Economy Agreement (GEA) to formulate common rules and standards and develop interoperable policy frameworks that can benefit trade and investment in environmental goods and services as a means to develop green industry. Both parties intend to support MSMEs in joint development and innovation of green goods, services, and technologies by providing financial assistance or conducting business matching, enabling business activity expansion.

(3) Frameworks on Cooperation in Digital Economy and Green Economy Between Singapore and Malaysia

In January 2023, Singapore and Malaysia signed Frameworks on Cooperation in Digital Economy and Green Economy, laying a foundation for both parties' cooperation and initiatives. The focus of cooperation is on the digitalization of trade process, cross-border data flow, and digital payment, as well as on measures to enhance the competitiveness of MSMEs; further, cooperative promotion of digital tools and technologies will increase MSMEs' digital market share. Additionally, parties intend to fortify collaborations on decarbonization among businesses in the fields of next-generation mobility and low-carbon solutions, allowing enterprises to ride the wave of business opportunities in the green economy.

These three collaborations exemplify the advancement of bilateral and multilateral cooperation among APEC economies wherein MSMEs' digital and green transformations are the focus, and where the established cooperation offers assisted responses to post-pandemic economic recovery, global trends, and supply chain changes.

3. Challenges of Green Transformation Faced by MSMEs

Although different economies are trying to facilitate MSMEs' transformation through policies, measures, initiatives, and other means, MSMEs still face numerous challenges in their pursuit of green transformation.

(1) Lack of Transformation Knowledge and Awareness

SMEs are often concerned with their business operations and overall viability rather than transformation. Due to a lack of information regarding the costs and benefits of green practices, awareness about the advantages of green transformation is still relatively weak.

Moreover, MSMEs rarely have dedicated personnel responsible for tracking international trends and regulatory changes; maintaining an updated, actionable understanding of the latest green

compliance and transformation measures is an obstacle for many small- and medium-sized firms. As they are unable to identify suitable or applicable green transformation technologies and have limited access to professional transformation knowledge, it is difficult to include green practices in their core business.

(2)Lack of Transformation Guidance

MSMEs often cannot contend with the variety, complexity, and volatility of sustainability standards in the global green supply chain, particularly without guidance. According to a survey by the International Trade Center (ITC), only 5% of micro enterprises and 13% of small enterprises possess sustainability standard certification.

MSMEs need clear and explicit green transformation directives provided by the market or the public sector. The public sector must also deliver comprehensible and actionable transformation policies and plans to prevent misdirection and resource misutilization by MSMEs.

(3) Insufficient Transformation Capabilities

Due to limited resources, finance, and capabilities, MSMEs often lack the ability to plan and implement transformation. According to the ITC report, 60% of large enterprises have adopted measures to cope with climate change, such as digitization and green manufacturing, while the proportion is less than 40% among small enterprises.

4. Facilitating MSMEs' Green Transformation Through Digital Innovations

Digital innovations and technologies are fundamental in supporting MSMEs in green transformation. The United Nations (2020) pointed out that the digital revolution along with the proper utilization of such technologies can combat climate change, promote global sustainability, support environmental protection, and foster human well-being.

According to a World Economic Forum (WEF) 2019 estimate, the adoption of 5G, cloud storage, IoT, big data, and other digital technologies and solutions can reduce global carbon emissions by at least 15% by 2030, underscoring that the deployment of digital innovations contributes to the reduction of global emissions.

More specifically, digital innovations and technologies can be deployed in green transformation. For instance, IoT systems can monitor pollutants, waste, and carbon emissions from factories in real time. Big data and AI analysis can enhance enterprise automation and operational efficiency to achieve carbon reduction. The use of cloud computing and virtual storage devices can reduce the energy consumption and carbon emissions of traditional data centers.

Despite the benefits of digital innovations in green transformation, the lack of awareness, knowledge, and ability is still an impediment in MSME adoption of digital innovations and cutting-edge technologies. Therefore, to facilitate MSMEs' green transformation through adoption of digital innovations, there are some relevant measures which the public sector can reference and adopt for further advancement.

(1) Encouraging Experience and Information Sharing Among the Private Sector

Public associations and chambers of commerce can facilitate industrial exchanges and information sharing so that MSMEs can access relevant transformation knowledge and raise

awareness around sustainability and transformation. Additionally, governments can work with MSMEs to successfully communicate transformation-related policies and understand the resources needed and the challenges faced by MSMEs throughout the transformation. In this way, adequate assistance and coaching can be expediently offered.

(2) Developing Business Collaborations of Different Scales that Advance Digital Innovation As MSMEs are often more flexible than larger enterprises, they can easily redesign an existing framework to introduce applicative modes with digital innovations. Thus, MSMEs and other enterprises can realize digital innovative solutions and overcome transformation hurdles through both the development of digital technologies as well as green business models that use new technologies and products of joint research and development. Indeed, the public sector is crucial in providing support and resources to foster such collaborations.

(3) Promoting Global Policy Exchanges that Support Green Transformation with Digital Innovation

In addition to policy and regulatory support, MSMEs' green transformation also relies on policy exchanges and best practice sharing among global economies and within supply chains. Discussions must focus on the digital and green transformation approaches that best suit MSMEs.

5. Conclusion

There is no turning back for SMEs' adoption of green transformation, and digital innovations and technological transformations contribute crucially to some of the best practices. This year's forum, "APEC Digital Innovation to Facilitate SMEs' Green Transformation," consists of three major sections — the keynote speech, a policy dialogue, and three panel discussions. The forum is also integrated with physical exhibitions and best-practice showcases. Representatives from academia, industry, and the public sector of APEC economies are invited to share their experiences and exchange best practices. The aim is to raise MSMEs' awareness of green transformation to encourage adoption of digital innovations and implementation of best practices for carbon reduction and circular economy. Such action can enhance APEC MSMEs' green competitiveness and empower them to face the challenges of net zero emissions in the global supply chain.

APEC Digital Innovation to Facilitate SMEs' Green Transformation Forum

Date: 13-14 June, 2023

Venue: NTHCC International Convention Center, Taipei City

13 June (GMT+8)

09:20-09:25	Welcome
09:25-09:30	Opening ceremony
09:30-09:40	Opening remarks • Chern-Chyi "C.C." Chen, Deputy Minister, Ministry of Economic Affairs (Chinese Taipei) • Hattori Takashi, Deputy Representative, JTEA • Nicholas Dwyer, Economic Officer, AIT
09:40-09:45	Group photo
09:45-10:25	Keynote speech- SME Twin Transformation toward Low carbon Future • Dan Stevenson, Senior Director, Microsoft Teams Engineering for Asia (U.S.)
09.45-10.25	Kung-Yueh Camyale Chao, Executive Director, International Climate Development Institute (Chinese Taipei)
10:25-10:40	Break
	Policy Dialogue Moderator • Dr. Jack C. Chang, Senior Strategy Executive Director, Suctainability Industrial Technology Research Institute
10:40-11:55	 Sustainability, Industrial Technology Research Institute Panelists Ming Chih Chuang, Counselor and Executive Secretary, Committee of Research and Development, MOEA (Chinese Taipei) Dr. Jae Won Kang, Research fellow, Office of Startups, Ventures & Innovation Policy, Korea SMEs & Startups Institute Joanna Redelbach, Counsel, Van Bael & Bellis (E.U.) Kei Takahashi, Director, Small & Medium Enterprises and Regional Innovation, Japan
11:55-12:00	Closing of morning session
12:00-13:35	Lunch & Exhibition Visit

13 June (GMT+8)

13:35-13:40 **Opening of afternoon session**

Panel Discussion 1-Increase the Awareness of SMEs about the Net Zero Emission Trend

Moderator

 Dr. Yau-Jr Liu, Vice President, Taipei University of Marine Technology (Chinese Taipei)

13:40-14:55 **Panelists**

- Dora Yen, COO, YC Holdings Inc. (Chinese Taipei)
- Aleksandra Kozłowska, Head of Trade Section, European Economic and Trade Office (E.U.)
- Emilie Jones, Senior Sustainability Consultant, Codo Advisory (Japan)
- · Zakiah Mat Esa, Chief Sustainability Officer, SME Bank, Malaysia

14:55-15:10 **Break**

Panel Discussion 2-Activate SMEs' Green Transformation through Digital Platforms

Moderator

 Cathy Lee, Director, Deloitte & Touche Risk Management Advisory Co. (Chinese Taipei)

15:10-16:10

Panelists

- Pei Tong Huang, President, TransAct Technology (Chinese Taipei)
- Kim Lê, Managing Director, CL2B (Viet Nam)
- Pathom Chaiyapruksaton, Senior Manager,
 Thailand Greenhouse Gas Management Organization

16·10-16·25 **Break**

Panel Discussion 3-Promote Green Business Models through Corporate Startup Partnership

Moderator

• Hua C. Wang, Executive Director, Global Innovation Forum (U.S.)

16:25-17:40

Panelists

- Eddy Huang, Consultant, 5Cloud Corp. (Chinese Taipei)
- Yi Fan Chen, GTM Lead, Business Applications, Marketing & Operations, Microsoft (Chinese Taipei)
- Dr. Deral Chen, Co-Founder, Blutech. Inc. (Chinese Taipei)
- May Kao, President, Evercomm (Singapore)

17:40-17:45 *Closing of first day*

APEC Digital Innovation to Facilitate SMEs' Green Transformation Forum

Date: 13-14 June, 2023

Venue: NTHCC International Convention Center, Taipei City

14 June (GMT+8)

	Best Practice Showcase
09:00-09:05	Instructions
09:05-10:25	Order of showcasing • MacroHI • Aromate Industries • BANANA & Partners • Turing Certs • JGB Smart Property • IMPRESSIVE.CARE • Qaya Cuero de Pescado Peruano • Ecoplus Technologies
	 Evaluators Hua C. Wang, Executive Director, Global Innovation Forum James Lu, Vice President, Deloitte & Touche Risk Management Advisory Co. Vince Hu, President, Cathay Private Equity Co.
10:25-10:35	Break
10:35-12:05	Order of showcasing • BIOCROWN • Global Green Material • VIETNAM FOOD JOINT STOCK COMPANY • Eco Shift • All Good Energy • Singularity&Infinity • FineTech • Mad Travel and Green Antz • Verdastro Sdn. Bhd.
	 Evaluators Hua C. Wang, Executive Director, Global Innovation Forum James Lu, Vice President, Deloitte & Touche Risk Management Advisory Co. Vince Hu, President, Cathay Private Equity
12:05-12:10	Break
12:10-12:20	Award ceremony
12:20-12:25	Closing remarks

Survey of the Forum



Please help us evaluate the forum by completing this short survey.

Thank you!

Keynote Speech



Kung-Yueh Camyale Chao

Executive Director

International Climate Development Institute (Chinese Taipei)

Experiences

- Reviewer and Chair of Sustainable Environment Group, Ministry of Digital Affairs
- Executive Committee Member, CityNet
- Member, Sustainable Finance Technical Working Group, Financial Supervisory Commission **Education**
- PhD Candidate in Politics, University of York, UK
- PhD Candidate in Educational Policy and Management, Taipei University of Education

Policy Dialogue

SMEs cannot be exempted from the climate change impact and the net zero trend, and play a crucial role in green supply chains. As a result, SMEs' green transformation is as necessary as digital transformation. Because of SMEs' scarce in resources, the public and private partnership can be a feasible model to facilitate SME green transformation. The policy dialogue will commence with the point of views of the public sector, and elaborate on specific policies and regulations related to digital innovation and green transformation.



Dr. Jack C. Chang
Senior Strategy Executive Director, Sustainability
Industrial Technology Research Institute(ITRI)

Experiences

- Adjunct professor at Graduate Institute of Intellectual Property, NTUST
- Deputy Director of Industrial Technology International Strategic Development Institute, ITRI
- Deputy Director of Industrial Economy and Trend Research Center (IEK), ITRI **Education**

Ph.D. Chemical Engineering, Louisiana State University



Dr. Ming Chih Chuang
Counselor and Executive Secretary
Committee of Research and Development, MOEA

Experiences

- Director of the Planning Division, BOE, MOEA
- Deputy Director of the Planning Division, BOE, MOEA **Education**

Ph.D in Electronics Engineering, NTU

Policy Dialogue



Dr. Jae Won Kang

Research fellow

Office of Startups, Ventures & Innovation Policy, Korea SMEs & Startups Institute

Experiences

- Korea SMEs & Startups Institute, Research Fellow
- Korea Advanced Institute of Science & Technology, Senior Researcher
- Korea Evaluation Institute of Industrial Technology, Researcher

Education

- Ph.D. in Economics, University of Pittsburgh
- M.A. in Technology Management, Eonomics & Policy Program, Seoul National University



Joanna Redelbach

Counsel

Van Bael & Bellis (E.U.)

Experiences

- Co-heads Van Bael & Bellis CBAM task force
- Prepared a comprehensive analysis of the EU CBAM proposal and its consistency with the EU's obligations under WTO law and its free trade agreements

Education

- University of Geneva, Master of International and European Law
- Adam Mickiewicz University Poznań, Master of European Studies (European Law)



Kei Takahashi

Director

Organization for Small & Medium Enterprises and Regional Innovation, JAPAN (SMRJ)

Experiences

- Deputy Director, Kyushu Head Office SME Support, JAPAN
- Section Chief, International Business Support Division SME Support, JAPAN

Increase the Awareness of SMEs about the Net Zero Emission Trend

While corporates have facilitated their pace to adopt ESG concept to improve their business operations and supply chain management, SMEs, playing important roles in supply chains, need to implement green transformation to enhance competitiveness in global value chains.



Dr. Yau-Jr Liu
Vice President
Taipei University of Marine Technology

Experiences

During the last decade of his career, Dr. Liu was in charge of the APEC SME Crisis Management Center, SME Research Center and helped drafting the initiative for Hidden Champing Development, Social Enterprise Development, and the New Orientations for Industrial Competitiveness.

Education

Ph.D. Department of Economics, University of Missouri-Columbia



Dora Yen
Chief Operating Officer
YC Holdings Inc.

Experiences

- Co-founder & COO, YC Holdings Inc.
- Develop innovative business model, service, technology and day-to-day business operation **Education**

Master in Human Relations University of Oklahoma USA

Increase the Awareness of SMEs about the Net Zero Emission Trend



Aleksandra Kozlowska

Head of Trade Section

European Economic and Trade Office

Experiences

- Counsellor , Permanent Representation of Poland to the EU
- Senior expert, Ministry of Economy Legal Officer (NEPT), European Commission, DG Environment, Enforcement Unit, PL Desk

Education

Master of Laws (LLM), Oxford Brookes University



Emilie Jones
Senior Sustainability Consultant
Codo Advisory

Experiences

Corporate sustainability consulting covering topics including the circular economy, sustainable supply chains, the hydrogen economy, and carbon capture utilization and storage.

Education

Master of Science in Sustainability Studies, University of Tokyo



Zakiah Mat Esa
Chief Sustainability Officer
SME Bank, Malaysia

Experiences

Under Zakiah's guidance, SME Bank has made significant strides in its sustainability journey. Recognised for her expertise being more than 20 years in banking industry, Zakiah shared insights on the topic of "ESG Data" at the Ethical Finance ASEAN 2022 Summit. Participated during the Global DFI Forum 2022 and addressed the audience on "Youth Unite For Safe & Secure Environment For All".

Education

Bachelor of Accountancy from Universiti Utara Malaysia

Activate SMEs' Green Transformation through Digital Platforms

In order to implement twin green and digital transformation, SMEs are encouraged to adopt innovative digital measures or digital platforms to effectively manage power as well as energy consumption so as to reduce carbon emission.



Cathy Lee

Director

Deloitte & Touche Risk Management Advisory Co.

Experiences

Cathy joined Deloitte in 2005 as a risk advisory consultant. She is leading the sustainability & climate change advisory service, which focuses on the sustainability strategy design, decarbonization and sustainability supply chain area.

Education

Bachelor in Management Information System, NCCU



Pei Tong Huang
President
TransAct Technology

Experiences

- Global tax law, corporate social responsibility (CSR) reporting, and global audits for over 25 years.
- Chief Strategic Advisor and Director of Audit for third-party organizations.
- Patented Invention of cloud platforms for CSR and sustainability.

Education

EMBA

Activate SMEs' Green Transformation through Digital Platforms



Kim Lê

Managing Director

CL2B

Experiences

- 2020 Carbon Policy and Sustainable Management of Natural Resources Certificate of the World Forestry Center, USA
- Top up-front entrepreneur in adapting circular economy in private sector in Vietnam **Education**
- Circular Economy And sustainability strategies Cambridge Judge University of UK
- Bachelor degree in Business Management Sunderland University of London



Pathom Chaiyapruksaton

Senior Manager

Thailand Greenhouse Gas Management Organization

Experiences

Research and expertise on Sustainable Consumption and Production, Eco-labelling, Green public procurement, Corporate Carbon footprint, Corporate GHG Measurement

Education

Master of Science in environmental technology, King Mongkut's University of Technology

Promote Green Business Models through Corporate Startup Partnership

Corporates lead the way to supply chains' green transformation, and need SMEs and startups' creativity to drive the process. The corporate-startup partnership not only fosters green and digital innovation, but also facilitates relevant knowledge dissemination and practices' popularity.



Hua C. Wang
Executive Director
Global Innovation Forum

Experiences

- Director, gener8tor
- Founder and CEO, SmartBridge Health

Education

Northwestern University School of Law



Eddy Huang
Consultant
5Cloud Corp.

Experiences

- Tranwo Technology Corp.
- Holux Technology Corp.
- Microtek International Inc

Education

Yang Ming Chiao Tung University

Promote Green Business Models through Corporate Startup Partnership



Yi Fan Chen

GTM Lead, Business Applications, Marketing & Operations

Microsoft

Experiences
GCR Event & Digital Lead Microsoft
Education
MBA, ESADE Business School



Dr. Deral Chen
Co-Founder
Blutech Inc.

Experiences

- PSC Retronix
- NECEL
- Intel

Education

Ph.D Univerisity of Leeds UK



May Kao
President
Evercomm Singapore

Experiences

- Assist Evercomm in its global net-zero collaborations with the Industrial Technology Research Institute (ITRI), including supporting the carbon reduction planning for KTIS, the third-largest sugar factory in Thailand.
- Assist Evercomm and Acbel to establish a joint venture overseas.

Education

Kaiping culinary school

Evaluators



Hua C. Wang
Executive Director
Global Innovation Forum

Experiences

- Director, gener8tor
- Founder and CEO, SmartBridge Health

Education

Northwestern University School of Law



James Lu
Vice President
Deloitte & Touche Risk Management Advisory Co.



With more than 10 years experiences in sustainability services, James now serves as team leader of Deloitte sustainability team.

Education

MBA, Carnegie Mellon University



Vince Hu
President
Cathay Private Equity

ExperiencesPresident, Cathay Capital **Education**

- University of Wisconsin-Madison, USA, MBA in Finance and Information Systems
- University of Wisconsin-Madison, USA, MS in Environmental Engineering

MacroHI



Introduction

Founded in 2003, MacroHI has more than 80 employees and its founder- Mr. Eric Chen is the 3rd generation of professional hair products manufacturer.

Based on more 60+ years experience in hair product research and development, MacroHI determined to focus on "brand" and "R&D" when it was founded. In 2004, MacroHI invested in scalp research, creating scalp hair products, patented scalp examination software apps, publish scalp education textbooks, and establishing scalp care academy, dedicating to the scalp ecosystem

Aromate Industries



Introduction

Aromate established in 1995, has its own Lab and R&D team, and now is the 1st leading innovator and manufacturer in Air Care in Asia.

Aromate successfully creates and brings the series brands into the worldwide markets, ex. AIRE, NEO, Laguna, Staroma.. etc.. To meet up-to-date request, Aromate develops the air purifying diffuser QURE. Aromate is marketing in more 30 economies today.

BANANA & Partners



Introduction

We provide waste-to-energy and waste-to-material solutions through a circular economy ecosystem. We support the transformation to accelerate zero-emission through waste management services, renewable energy products, community development, and environmental consultants.

Turing Certs



Introduction

Turing Certs is building a global digital trust network. We assist individuals in establishing a lifelong cross-border digital identity and credential wallet, while binding identification documents with verifiable sources and proof of quality.

By leveraging blockchain technology, including fraud prevention | real-time verification | paperless transactions | full traceability, we enhance the security of confidential documents and simplify the verification process for identities and credentials. We have been adopted by 150+ governments and institutions in 9 countries and regions.

JGB Smart Property



Introduction

JGB Smart Property is a cloud-based software-as-a-service (SaaS) solution with real-time performance analytics and mobility to provide property managers of various sizes, tools and services designed to streamline their property management businesses.

JGB aims to help small to medium-sized (SMEs) property management firms to grow their business rapidly.

IMPRESSIVE.CARE

Introduction

Impressive Care is a social innovation enterprise that specializes in green health promotion services. It provides users with precise healthcare, green environmental practices, and contributes to the promotion of the health industry. It is registered on the Social Innovation Platform of the Small and Medium Enterprise Administration of MOEA (Registration No. 883) and advocates for United Nations SDG 3: Good Health and Well-being. It has been selected as an exemplary social innovation enterprise by the Taipei City Government in 2023.

Qaya Cuero de Pescado Peruano



Introduction

We are a company that is dedicated to the elaboration of leather based on fish skin, creating raw materials and products with a lower impact than other leathers.

The base with which we govern ourselves is based on the circular economy, always seeking to minimize our carbon footprint, reusing every possible waste that we generate, in turn seeking to support our community.

We have made alliances with different designers worldwide, in countries such as France, Mexico, the United States, Spain, and Switzerland, thus managing to export our raw material to achieve top quality products.

Ecoplus Technologies



Introduction

ECOPLUS was founded in 2010, and is used to incorporate environmentally friendly elements and popular economic materials with our products at the beginning of design.

ECOPLUS continues leading the industry to keep up on the trend of circular economy nowadays. Through the core value of "Love the Earth and Care for the People" as our management standard, ECOPLUS continues committing to environmental protection and energy saving.





Introduction

At BIOCROWN, we have produced and manufactured cosmetics for over 47 years with a professional approach. Our commitment to excellence continuously drives us to search for the best natural and organic ingredients. We incorporate the latest technology to ensure our customers receive the highest-quality skincare products. In addition, we have a dedicated Research and Development team that innovates customized formulations to meet our client's needs. We also have an experienced Quality Control Team and System that ensures the quality of our products at every stage of production, from raw materials to semi-finished products and finally to finished goods.

Global Green Material



Introduction

Global Green Materials is a company specializing in the production of post-consumer recycled pellets and ocean waste recycled pellets, and provides material compounding and color matching services. We started as a plastic container recycling factory, through professional sorting, cleaning and color sorting technologies, we produce high-quality, low-odor, light-colored recycled plastic pellets. The company's vision is to create a renewable material supply platform that increases customer stickiness, and invite like-minded partners to join the recycled material supply alliance to provide a variety of recycled plastic materials on the platform to meet the material needs of brand customers.

VIETNAM FOOD JOINT STOCK COMPANY



Introduction

Based in Vietnam, Vietnam Food Joint Stock Company (VNF) is a leading global shrimp coproducts processor. Since 2014, VNF has successfully developed a unique biotechnological production model with a Zero-Waste production mindset. The company specializes in processing shrimp co-products to create value-added ingredients for various industries whilst alleviating environmental burden.

VNF is currently both the pioneer and leading shrimp co-products processor in Vietnam, providing comprehensive eco-friendly solutions from both shrimp heads and shrimp shells.

Eco Shift

The Eco Shift Plastic Free Essentials

Introduction

The Eco Shift is the flagship brand of Three Women OPC. The brand launched in December 2018 by Irene M. Villaespin, a solo parent of two young girls with the mission to influence people to shift to plastic free products. It aims to provide plastic-free essentials that is effective and affordable to assist people to seamlessly shift to a new kind of lifestyle.

All Good Energy



Introduction

All Good Energy is a leading energy solution provider. We provide complete energy solutions for the public sectors as well as in many industries. We understand the importance of reliable and sustainable energy storage, and our team of experts build a wide range of innovative products and services to meet our clients' unique needs, including: solar batteries, IOT batteries, power control units, and total energy management solutions.

Singularity&Infinity



Introduction

Singularity&Infinity is a SaaS provider that uses mathematics, statistics, and software technology to solve Smart Mobility problems. Calculation of delivery routes has been a pain point in computer science for nearly a century. In 2022, Singularity&Infinity won the Vehicle Routing Problem Challenge held by the Discrete Mathematics and Theoretical Computer Science Center in the United States, defeating global giants and top universities such as Google AI, Yamato, Walmart, Cornell University, and Carnegie Mellon University, verifying our technology's position on the global spectrum.

FineTech



Introduction

FineTech Inc. focuses primarily on AI, IoT, and ESG applications as our core technologies, with a major emphasis on the development and operation of Intelligent parking management. Our main products include AI Intelligent parking poles and related parking applications, as well as AI Intelligent parking poles with geomagnetic sensors and AI smart patrol vehicles for cars and motorcycles. The company plans to gradually expand its services to worldwide.

Mad Travel & Green Antz





Introduction

Mad is a regenerative travel and education company that uses digital and nature technologies to provide access to real, impactful, restoration projects (forest, mangrove, reef) in the Philippines, working with community to build the carbon sink economy.

Green Antz is a circular economy company that develops & deploys technology solutions to reduce the amount of plastic waste thrown into the environment, and transforms it into valuable products such as construction materials (eco bricks, eco pavers) and coming soon, energy (fuel).

Verdastro Sdn. Bhd.



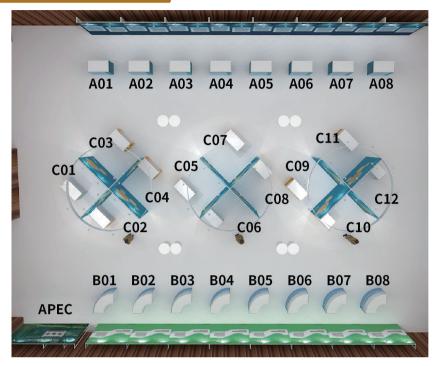
Introduction

Verdastro is a biomaterial company focusing on converting agricultural waste into valuable consumer and industrial products.

Currently, our main focus is utilising oil palm (sawit) empty fruit bunch (EFB) fibres to produce tablewares such as drinking straws, forks, and spoons, and alternative fuel pellets to replace coal for industries.

We are also innovating with current technology to produce paper, plywood, fabric, and bioplastic from EFB fibres.

Exhibition



When you visit the exhibition booths, you can collect points. Once you have collected 12 points, you can visit the special booths (Guantian Black Gold or CHANG COFFEE CO.) to exchange them for handmade DIY experiences and gifts.

No.	Low Carbon Lifestyle
A01	HamaStar Technology
A02	eTreego
A03	DATAYOO
A04	Darwintec Solutions
A05	VIETNAM FOOD JOINT STOCK COMPANY
A06	Eco Shift
A07	Mad Travel & Green Antz
A08	Qaya Cuero de Pescado Peruano

No.	Low Carbon Lifestyle
B01	JGB Smart Property
B02	All Good Energy
B03	IMPRESSIVE.CARE
B04	Turing Certs
B05	JIA KENG International
B06	FineTech
B07	Blutech
B08	Singularity&Infinity

No.	Circular Innovation
C01	Global Green Material
C02	Evershine Creations
C03	Ecoplus Technologies
C04	Aromate Industries
C05	MacroHI
C06	Junmay Label & Textile
C07	Feebees
C08	BIOCROWN
C09	Foremost Champion
C10	Verdastro Sdn. Bhd.
C11	Somnics
C12	BANANA & Partners

Low Carbon Lifestyle _



HamaStar Technology



































B04 Turing Certs











Low Carbon Lifestyle .



FineTech







Blutech







Singularity&Infinity





Circular Innovation



Global Green Material







Evershine Creations







Ecoplus Technologies







Aromate Industries





Circular Innovation _



MacroHI







Junmay Label & Textile







Feebees







BIOCROWN







Foremost Champion







Somnics





APEC Economies



Darwintec Solutions







VIETNAM FOOD JOINT STOCK COMPANY





APEC Economies _____



Eco Shift







Mad Travel







Green Antz







Qaya Cuero de Pescado Peruano







Verdastro Sdn. Bhd.







BANANA & Partners





Special Booths _____

Guantian Black Gold





CHANG COFFEE CO.





APEC PUTRAJAYA VISION 2040

Our vision is an open, dynamic, resilient and peaceful Asia-Pacific community by 2040, for the prosperity of all our people and future generations.

Remaining committed to APEC's mission and its voluntary, non-binding and consensus-building principles, we will achieve this vision by pursuing the following three economic drivers:

Trade and Investment: To ensure that the Asia-Pacific remains the world's most dynamic and interconnected regional economy, we acknowledge the importance of, and will continue to work together to deliver, a free, open, fair, non-discriminatory, transparent and predictable trade and investment environment. We reaffirm our support for agreed upon rules of the WTO in delivering a well-functioning multilateral trading system and promoting the stability and predictability of international trade flows. We will further advance the Bogor Goals and economic integration in the region in a manner that is market-driven, including through the work on the Free Trade Area of the Asia-Pacific (FTAAP) agenda which contributes to high standard and comprehensive regional undertakings. We will promote seamless connectivity, resilient supply chains and responsible business conduct.

Innovation and Digitalisation: To empower all our people and businesses to participate and grow in an interconnected global economy, we will foster an enabling environment that is, among others, market-driven and supported by digital economy and innovation. We will pursue structural reforms and sound economic policies to promote innovation as well as improve productivity and dynamism. We will strengthen digital infrastructure, accelerate digital transformation, narrow the digital divide, as well as cooperate on facilitating the flow of data and strengthening consumer and business trust in digital transactions.

Strong, Balanced, Secure, Sustainable and Inclusive Growth: To ensure that the Asia-Pacific region is resilient to shocks, crises, pandemics and other emergencies, we will foster quality growth that brings palpable benefits and greater health and wellbeing to all, including MSMEs, women and others with untapped economic potential. We will intensify inclusive human resource development as well as economic and technical cooperation to better equip our people with the skills and knowledge for the future. We will promote economic policies, cooperation and growth which support global efforts to comprehensively address all environmental challenges, including climate change, extreme weather and natural disasters, for a sustainable planet.

To maintain APEC's unique position as the premier forum for regional econom ic cooperation as well as a modern, efficient and effective incubator of ideas, we will embrace continuous improvement of APEC as an institution through good governance and stakeholder engagements. We will advance the APEC Putrajaya Vision 2040 with a spirit of equal partnership, shared responsibility, mutual respect, common interest, and common benefit. We will achieve the vision by 2040, with an appropriate implementation plan and review of its progress.





Asia-Pacific Economic Cooperation



