

# Editorial Statement

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Asia-Pacific Perspectives is a key publication of CTPECC and an open forum welcoming submissions of analyses, perspectives, and commentaries on the Asia-Pacific region. The periodical focuses on political, economic, business and social issues.

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# Asia-Pacific Perspectives

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# Promoting New South Bound Policy through APEC

*Wayne Chen*

September 5, 2016, the New Southbound Policy (NSP) was officially launched by the Taiwanese government to strengthen ties with countries in South Asia, Southeast Asia, and the South Pacific through promoting cooperation across fields including agriculture, business, culture, education, new energy and technology. 18 countries were centered in NSP as potential strategic partners, namely the 10 Association of Southeast Asian Nations member states, 6 nations in South Asia, Australia and New Zealand.

The proposal of NSP reflects not only the fear of the increasing marginalization of Taiwan in regional economic integration of Asia-Pacific, but a profound diplomatic strategy of the newly elected administration in response to a more challenging cross-strait relations. Considering the objectives, proposed actions and desired outcomes of NSP, I argue that APEC can be a very useful platform where Taiwan has been actively participating since 1991 for achieving NSP.

## **A wide range of common issues attended by APEC and NSP**

NSP will be realized, as illustrated by the NSP Promotion Plan, through advancing the 4 main tasks, including economic collaboration, talent exchange, resources sharing, and regional links, which will contribute

**Table 1: Focus areas in common between NSP and APEC**

NSP Main Tasks	Focus Areas	APEC Initiatives	APEC (sub) Fora
Promote Economic Collaboration	Supply Chains	Supply Chain Connectivity Action Plan	Committee on Trade and Investment
		Supply Chain Connectivity Alliance	Committee on Trade and Investment
		APEC Strategic Blueprint for promoting Global Value Chain Development and Cooperation	Committee on Trade and Investment
		Promoting SME's Integration into Environmental Goods and Services (EGS) Global and Regional Markets	Committee on Trade and Investment
		APEC Services Competitiveness Roadmap (2016-2025)	Committee on Trade and Investment
	Infrastructure Projects	APEC Connectivity Blueprint (2015-2025)	Senior Official Meeting/Finance Ministers' Process
		APEC Multi Year Plan on Infrastructure Development and Investment	Senior Official Meeting/Finance Ministers' Process
		Cebu Action Plan	Finance Ministers' Process
		Energy Smart Community Initiative	Energy Working Group
	Market Access	Bogor Goals	Committee on Trade and Investment
		Renewed APEC Agenda for Structural Reform 2016-2020	Economic Committee



NSP Main Tasks	Focus Areas	APEC Initiatives	APEC (sub) Fora
		List of Environmental Goods	Committee on Trade and Investment
	Start-ups	Boracay Action Agenda to Globalize MSMEs	Senior Official Meeting
		Renewed APEC Agenda for Structural Reform 2016-2020	Economic Committee
		The Innovation for Women and Economic. Development Multi-year Plan	Policy Partnership of Women and the Economy
		APEC Women in STEM	Policy Partnership of Women and the Economy
		APEC Internet and Digital Economy Roadmap	Ad Hoc Steering Group on the Internet Economy
		Digital Trade	Committee on Trade and Investment
		Cross Border Privacy Rules System	Committee on Trade and Investment
Conduct Talent Exchange	Education Ties	Develop 21st Century Knowledge and Skills For All	Human Resource Development Working Group
		APEC Women in STEM	Policy Partnership of Women and the Economy
		APEC Scholarship	Senior Official Meeting
	Industry Talent	APEC Skills Development Capacity Building Alliance	Human Resource Development Working Group
		APEC Engineer	

NSP Main Tasks	Focus Areas	APEC Initiatives	APEC (sub) Fora
		Youth Sustainable Water Resources Education and Development Hub in the APEC Region	
	New Immigrants	Enhance the Protection of Migrant Workers' Rights	
		Disaster Risk Reduction Strategy for Migrant Workforce in the APEC Region	Emergency Preparedness Working Group
Share Resources	Health Care	Healthy Asia Pacific 2020	Health Working Group
	Culture	Social Responsibility and Common Development on Mining	Mining Task Force
		APEC Sustainable Forest Management	Forestry Ministerial Meeting/Expert Group on Illegal Logging and Associated Trade
	Tourism	Travel Facilitation Initiative	Tourism Working Group/USA/Peru
		Sustainable Tourism	Tourism Working Group
	Technology	APEC PPSTI Strategic Plan 2016-2025	Policy Partnership on Science, Technology and Innovation
	Agriculture	APEC Food Security Roadmap 2020	Agricultural Technical Cooperation Working Group/Policy Partnership on Food Security



NSP Main Tasks	Focus Areas	APEC Initiatives	APEC (sub) Fora
	Small and Medium Enterprises	Boracay Action Agenda to Globalize MSMEs	ME Working Group
		New Era of Growth for APEC SMEs through Online-to-Offline (O2O) Business Models	SME Working Group
		SME Crisis Management Center	SME Working Group
Forge Regional Links	Regional Integration, Negotiations and Dialogue, Strategic Alliances, Overseas Taiwanese Networks	Free Trade Area of the Asia-Pacific	Committee on Trade and Investment
		APEC Typhoon Center	Policy Partnership on Science, Technology and Innovation
		APEC Emergency Preparedness Capacity Building Center	Emergency Preparedness Working Group

collectively to the achievement of a new sense of community and mutually beneficial bilateral relations. The wide range of areas for cooperation are not limited to conventional economic issues but extended to a broader horizon that crystalizes one of ambitious objectives of NSP that is to forge strategic partnership with target countries. Similarly, by following the 3 pillars of the APEC's agenda: Trade and Investment Liberalization; Business Facilitation; and, Economic and Technical Cooperation, APEC has developed initiatives across of the spectrum of works including the promotion of trade and investment as well as capacity building activities. The 4 main tasks of NSP are highly related to some overarching issues of APEC as identified in Table 1.

NSP underscores the significance of cooperation on infrastructure, human resource development and welfare-related issues, such as health care,

tourism, agriculture and SMEs. Furthermore, given that migrant workers and foreign spouses from NSP target countries are increasing rapidly, enhancing culture exchange and mutual understanding as well as engaging new immigrants in local communities are highlighted throughout NSP and APEC could be complement to aforementioned areas from a regional cooperation perspective.

One very example is the APEC Connectivity Blueprint (2015-2025) which was launched in 2014. The Blueprint identifies three pillars, including physical connectivity which refers to infrastructure, people-to-people connectivity which emphasizes cross-border education collaboration and institutional connectivity which involves supply chains related issues, and APEC economies can review and advance regional connectivity accordingly. The Blueprint not only reflects NSP's work on economic collaboration, talent exchange, culture and tourism, but the consensus and active participation of APEC economies in these areas demonstrates great opportunities for Taiwan to build partnership for future actions.

## **Leverage Taiwan's Success in APEC for NSP Cooperation**

Most of the NSP target counties are developing economies and therefore capacity building are intensively attended in building strategic partnership compared to trade facilitation negotiations. In this light, Taiwan's signature initiatives developed within the APEC discourse can serve as convenient start points for future NSP cooperation. APEC Digital Opportunity Centers, for example, which aims to narrow digital divide have developed strong and far-reaching reputation of assisting youth, women and people in remote areas engage in business. Moreover, 9 of 18 NSP target countries are APEC members. As a result, Taiwan government may consider ways to leverage



achievement and recourses of APEC to maximize the outcome of NSP.

*(Wayne Chen is an Associate Research Fellow, TIER)*

# The ASEAN Economic Cooperation (AEC) and its New Opportunities

*Jack Huang*

AEC, also known as ASEAN Economic Cooperation, was adopted to enhance trade development, economic growth and the concept of free market within the region. By integrating into a more closely community, it is believed that the stability and fundamental prosperity can be achieved in the future years. Indeed, according to the ASEAN Vision 2020<sup>1</sup>, ASEAN nations would like have comprehensively free movement of goods, services, investment, skilled labour and capital by 2020. By doing so, the 600 millions population and 4.5 millions square kilometers area will be considered as a single market with increasing supply and demand. Thus, it is essential to understand both opportunities and challenges in this regional partnership<sup>2</sup>.

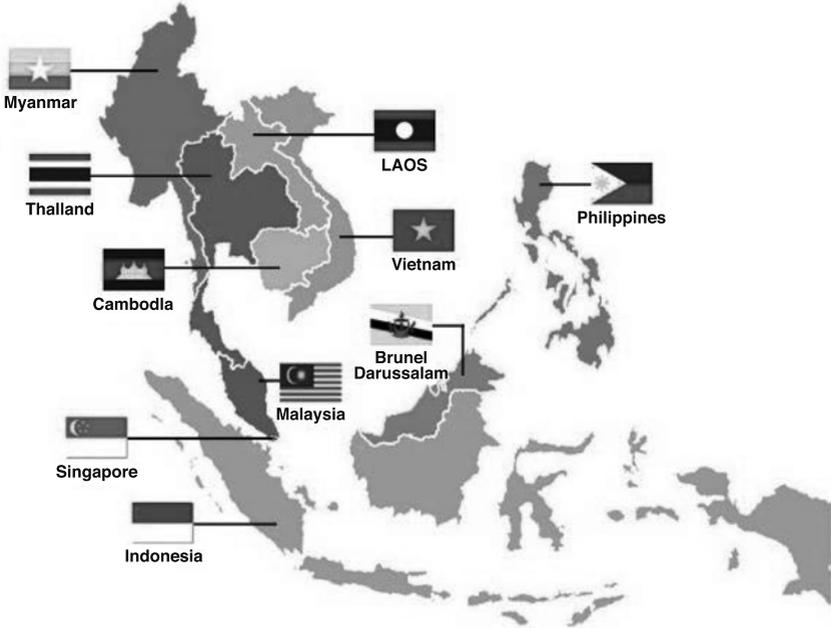
Since the lack of progress of WTO negotiation, more and more bilateral / multilateral free trade agreements have been approved between economics. The recent trend targets a new era that the global economic integration has been shifted from world-level participation to the regional integration. Such as TPP, RECP or 'one-belt-one-road' program have implemented their own ambitions and tried to reshape regional trade rules, in particularly,

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<sup>1</sup> See: <http://asean.org/asean/about-asean/>

<sup>2</sup> There has 10 member states in AEC, which includes: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.

**Figure 1: The member states of AEC.**



Source: The World Economic Forum.

the Southeast Asia becomes a place that everyone would like to join the competition.

As a region, ASEAN has implemented its export-oriented policy for a long time. By leveraging its competitive advantages (cheap workforce and raw materials), ASEAN countries play an important role in Asian/global supply chain. Furthermore, the region also provides relatively cheap labours and abundant resources attracting foreign investment. In early stage, such as automobile, manufacturing, textile or machinery, etc. can be found as major industries in many countries. The export processing zones (EPZ) have been designed to service and engage these factories producing in the region and

selling to the foreign markets. Thereafter, the export-led growth contributes a lot in GDP per capita and many other tangible benefits to ASEAN people.

Although the export revenue is still important for most ASEAN countries, the establishment of AEC symbolizes a new era that the region is going to transfer its economic form export-led growth to demand-driven market. The raising middle-class, dynamic young population and changes of consuming behaviors stimulate new domestic market, innovation and intra-ASEAN trade. Indeed, the increasing purchasing power in ASEAN provides many opportunities for investment that haven't be considered before. For example, the 'ASEAN 4.0' plan, which initiated by Thai government in 2014, is going to build region a produce-based center with technology-and-innovation-led growth. Moreover, the investment in advanced industries, such as high-end medical service, renewable energy, smart grid system, health and education services, can also foster sustainable growth, creating a virtuous cycle among development, job creation and labour productivity.

It can be seen that the domestic and regional factors play a larger role in driving growth in ASEAN region. In the past, member states were vulnerable to external shocks due to their excessive reliance on export<sup>3</sup>. However, as mentioned above, the goals of AEC aim at enhancing its competitiveness and labour productivity by utilizing its growing population and transforming economic power. In order to strengthen its productivity and higher living standards for its citizen, ASEAN put lots of efforts on encouraging high value-added activities, in both service-related industry and technology-driven innovation. Such as e-commerce, fintech, intelligent manufacturing and virtual reality, etc. have been prioritized in the development agenda. For

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<sup>3</sup> See United Nations (2016). Economic and Social Survey of Asia and The Pacific 2016. p.96



instance, in Thailand, internet banking, mobile users, and E-payment have been observed increasing and become more acceptable in the society. It is important to understand that the knowledge-intensive development strategies allow ASEAN countries to catch up existing capabilities from advanced ones.

Also, in the AEC agenda, the ideas of liberalization, sustainability and inclusiveness have been adopted by most of ASEAN governments. In terms of cross-border trade, the advanced technology, reduced transport costs and closer connection have enlarged the scale and increased growth for the regional economics. The openness and inter-governmental cooperation have also speeded up tariff liberalization and created welfare for trading partners. As we can see in the recent ASEAN Summit in 2015, the ASEAN country leaders affirmed their strong commitment to stimulating the establishment of free trade area and accelerating the deregulation of goods, services and finally, the totally free movement of capital and labour. Although it still needs more negotiations and compromise to achieve these goals, the progress with respect to the removal of trade and investment barriers is optimistically predictable.

In sum, the formation of AEC signals a new economic integration in Southeast Asia. It provides opportunities for investment and doing business, not only in traditional manufacturing areas and export-oriented industries, but also the demand-driven services and technology-led innovation. While the increasing labour productivity, transforming economy and more open trading environment have formed a borderless domestic market, both public and private sectors should shift their focus on the industries that create higher value-added and customer-oriented benefits.

In the 2015 World Economic Forum, participating academics argued that AEC will boost the region's economies by at least 7.1 % in the next decade,

**Figure 2: The goals of AEC**



Source: Investment in ASEAN<sup>5</sup>

and it can also generate 1 million jobs in those innovative workplaces<sup>4</sup>. The application of technology, for example, using big data as a management tool for business, can flourish new sectors and allow more small and medium-sized enterprises (SMEs) enter the AEC market. In addition, it also requires related policies to support this structural change, which can generate shared prosperity for all members within the region.

A highly integrated, dynamic and cohesive economy might unleash significant potential in different industries and new opportunities will bring the tremendous advantages to all participants in ASEAN. In line

<sup>4</sup> ILO (2014). Can the AEC 2015 deliver for ASEAN's people? ASEAN Economic Community.

<sup>5</sup> See: <http://investasean.asean.org/index.php/page/view/asean-economic-community/view/670/newsid/755/about-aec.html>



with the endeavors conducted by all sides, a more concrete cooperation can be anticipated and both companies and policy makers should have new development strategies to maximize their welfare and profits.

*(Jack Huang is a consultant at UN Office of Information and Communication Technology, OICT)*

# **Summary Report: 2017 APEC Workshop “Linking Education and Start-ups: Youth, Women, and Athletes”**

*Gary Chen*

The Linking Education and Start-up: Youth, Women, and Athletes, a workshop jointly organized by the Sports Administration, Ministry of Education and the Vietnam Sports Administration, was held in Hanoi on May 13. The workshop was attended by 14 government sports officials, senior sports scholars and experts, athletes, and young entrepreneurs from 8 economies namely: Mr. Sean Wroe, Director of Sakura Finance, Australia; Dr. Mehander Singh, Director of Ministry of Education, Malaysia; Ms. Sharon Wee, Director of Sports Warrior Global, Malaysia; Ms. Peggy Tng, Deputy Director of Singapore Sports Institute, Singapore; Atty. Carlo Abarquez, Executive Director of the Philippine Sports Commission, the Philippines; Mr. Richard Shih, Representative of Taipei Economic and Cultural Office in Viet Nam; Ms. Maggie Hsu, Director of Sports Administration; Mr. Cheng Ho, Funder of Choxue; Mr. Jeff Hsu, Founder of Hope Tennis Academy; Mr. Nitikorn Rochanavibhata, Director of Sports Authority of Thailand, Thailand; Dr. Rungchai Chaunchaiyakul, Associate Professor of Mahidol University, Thailand; Mr. Volker Heistermann, Managing Director of Yushan Venture, United States; Ms. Le Thi Hoang Yen, Deputy Director General of Vietnam Sports Administration, Viet Nam; and Dr. Ha Viet Dang, Director of Ho Chi Minh National Sport Training Center, Viet Nam, highlighting the sports and education policies and paradigms focusing on education for female athletes



and youth entrepreneurship.

One fundamental issue seriously concerns athletes, who devote all their times preparing for domestic and international competitions, maintaining the best condition through relentless training, and competing for the highest honors against athletes of other economies, is their career path after retiring from sports competition. After exchanges and discussions on policies concerning education and entrepreneurship for youth and female athletes, delegates from different economies at the workshop proposed three key points: career path planning, youth entrepreneurship, and female participation in sports. Each of the key points is elaborated in below.

## **Career Path Planning**

Most of the athletes have to deal with the time allocation pressure of attending school while keeping up with training. This is the exact situation when a student athlete losses balance between competition-driven training and school education. Concerning about this, the governments draw up better policies that allow student athletes to meet the flexibility of training and study.

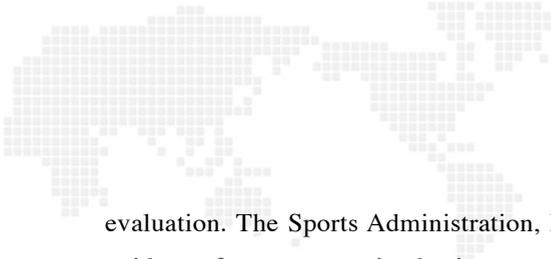
We have supportive policies included in school education already for student athletes, such as study counselling and preferential school advancement option are available for outstanding students during their schooling years. In addition, Thailand and Singapore in recent years have entered into cooperative memorandums with education institutes, where athletes may receive education and flexible curriculum at schools near their training sites. Similarly, the Vietnamese government also offers free education at sports schools, where student athletes of 12 to 18 years of age may take professional sports training at sports schools and regular education

at nearby schools, saving considerable commuting time for study.

The Philippines, however, has no specific sports college because the Philippines wants their young athletes to keep good school grades while developing their athletic potentials. As a result, many state-run universities offer tuition discount/exemption for athletes with good school grades. They believe this juxtaposing study-sports policy may facilitate young athletes' future career path. Other than the policies hereto, Malaysia, where more attention is paid to early development of athletes, adopts the policy of "One Student, One Sport", stipulating that all full-time students of 11 years of age must participate at least one sport activity, so that every student participating in sports may experience the benefits of sports. While students participate in sports, schools may scout out the talented and the potential ones for further development. In addition, the Singapore Sports Institute sponsors career path planning events throughout Asia every year targeting on athletes to promote athletes' career path planning.

## **Youth Entrepreneurship**

When facing career transition, most retiring athletes would consider developing their own businesses. Entrepreneurship counselling provided in advance can greatly help athletes to prepare themselves in the early stage. According to the Global Entrepreneurship Index, we are ranked number one in Asia, right after Australia in Asia Pacific; our people and entrepreneurs have highly developed entrepreneurship spirit. Currently the Ministry of Education is running the U-Start Program, which is an entrepreneur service specifically designed for college graduates. The program not only encourages college graduates to participate in start-ups, but also provides subsidy and operational assistance for potential start-ups that have passed the Program's



evaluation. The Sports Administration, Ministry of Education, also provide guidance for sports service business, such as "I'm an Athlete Entrepreneur" project; through incubation, financing, and operation guidance, these projects encourage young students to put their innovative ideas into new businesses.

Both Singapore and Malaysia have policies to encourage youth and athlete entrepreneurs. The SpexEntrepreneurship project in Singapore aims to cultivate entrepreneur spirit and quality among athletes and help athletes to realize their entrepreneur dream in the future without compromising the quality of their routine training. The Malaysian Global Innovation & creativity Center, MaGIC, is a Malaysian initiative that strengthens capacity of entrepreneurship among young students who are keen to start their own business by providing a professional platform that connects to entrepreneurs worldwide for sharing and exchanging, offering business development, production management courses, and global accelerator project. As of now, the initiative has successfully helped more than seven thousand young entrepreneurs to start up their own businesses.

## **Promoting Female Participation in Sports**

The Southeast Asian economies participating in this Workshop have stronger female competitiveness in sports than male athletes. Female athletes contribute no less than male athletes in general competitions. In this regard, Vietnam and Philippine delegates revealed that female athletes face harsher challenges both at homes and in training. Therefore, the Philippine Sports Commission and Vietnam Sports Administration shall continue to apply policies that inspire female athletes to consider and plan for their retirement life in advance. In Singapore and Malaysia, where gender equality is advocated, no policy or plan specifically designed for female participation in

sports or female athlete education is provided.

This year we have released its first female sports white paper that announces three major visions: health female, friendly environment, and sports empowerment, which aim to increase female population of habitual exercise, develop tolerant and supportive sports culture and environment, improve female status and value in their sports participation, encourage more female to adopt habitual exercises that benefit their health and stamina, give more opportunities for female of all social classes to participate in sports, integrate resource, and propose directions for future development of female participation in sports.

There are plenty of policies addressing to career path planning, youth entrepreneur, and female participation in sports in all economies. Regarding to sports and education policies adopted in all economies, in a general view, a partnership among government, enterprise, and school can be of great help for the youth, female, and athletes in all economies. In this partnership, government play an important role of bridge and resource integrator that provides opportunities for enterprises and schools to work together, allowing the youth and athletes to fully utilize resources. At the same time, government should sponsor more symposiums concerning Woman Ambassador with successful young entrepreneurs as speakers. Successful career transition experiences provided by female athletes and young entrepreneurs themselves, promotion and awareness of leadership enhancement through sports, and encouraging more young students at basic level to adopt habitual exercise since childhood are the only ways to effectively cultivate spirit of entrepreneurship among the youth, female, and athletes during their participation in sports.

*(Gary Chen is an Assistant Research Fellow, TIER)*



# FinTech Goes Green, Unlocking the Power of Renewable Energy

*Steve Huang & Julia Yang*

Current energy system, the electric grid, relied almost exclusively on a massive centralized infrastructure, with large power plants and long-distance transmission lines distribute energy to your house. Nowadays, with more and more renewable energy installations, distributed energy has become an unstoppable trend. More and more customers can easily install PV on their rooftop, and to buy and sell excess energy resources, communities can sell their excess power to each other. And now they need a new tool to make those transactions. New possibilities for green and finance are meant to change the economic landscape of the power sector.

In 2016, G20 heads of state for the first time recognized the need to scale up green finance, they set out a series of steps to make this happen. Key countries like China issued strategies for greening their financial systems. Policy moves were closely connected with the rapid growth of green finance in the marketplace. Insurance regulators decided to work together on how to respond to sustainability challenges. UN estimates that the number of policy measures to green the financial system has more than doubled to over 200 measures across 60 countries.

Among all, green bond market is taking the lead on the wave of green finance. With over US\$81 billion in issuance, almost double the 2015 totally.

Financial centers from London to Hong Kong, set out their plans to seize the green finance opportunity, no one wants to lag behind for the next big thing.

Green bond is just one of the tools in green finance. The transformational potential of Green Fintech for sustainable development gets everyone excited, from crowd-funding platform, new energy sharing economy marketplace, and mobile payments to artificial intelligence or even leveraging the latest blockchain technology for solar token ETH, Ethereum ICO offering. Investors are hungry to learn more. But, is it feasible in the near future?

### **Green Energy + FinTech + Blockchain + Sharing Economy + AI = ?**

Where there is regulation, there is opportunity. No one knows exactly how FinTech plus green finance would work, it is still too early to say - but if you look at digitization now are changing the way that financial services are delivered, it perhaps has even greater potential than you could imagine. ANT Financial Services Group partners with UN Environment to launch a new international partnership during World Economic Forum's Annual Meeting in Davos. The Green Digital Finance Alliance will bring together financial institutions committed to using digital technology to advance green finance in lending, investment and insurance. These new financial services can change consumers' behavior in ways that positively impact the environment. ANT's first case is to develop an app, link financial transaction and carbon footprint data, and then to provide carbon offset incentives to encourage eco life via social media. It provides users with a carbon account alongside their credit and saving accounts. ANT's 450 million users in China are now able to benchmark their carbon footprint, generated through algorithms of their financial transaction history, and to earn "green energy" credits for reducing their footprint. ANT's app makes it fun to use, by integrating this into a social



media experience as well as committing to a complementary, tree-planting carbon offset program, it generates strong feedback. As of today, 72 million users are participating in the app.

## **The Next Very Big Thing: Local Peer-to-Peer Energy Sharing Marketplace**

You might wonder, how does this impact the energy sector?

It starts from renewable energy. More than 200,000 solar households in Australia lost their premium feed-in-tariffs at the end of 2016, feed-in-tariffs was considered a critical factor to support solar, and so what happened now? The same problem is being posed by big utilities, who are facing a scale and pace of disruption that could never have been anticipated - the impact of the plunging cost of solar systems and the arrival of battery storage. The disruption offered by these technologies will be accelerated strongly by the introduction of new software, such as blockchain technology, which was first used in bitcoin transactions.

The new technologies will allow for participants to buy and sell energy in the retail or wholesale markets, through peer-to-peer rating and community-focused energy systems, such as microgrids. Microgrid users can choose where they want to get their energy from.

A new platform in the Netherlands, Vandebroon Energy connects those with excess renewable energy with those who want to purchase renewable energy directly from the site. On the Vandebroon website, producers and consumers meet in the marketplace, consumers get to choose the length of their contract and who they want to receive their power from. Without the utility company stepping on, producers make more money and consumers pay less. Today, there are 12 producers on Vandebroon who collectively

generate enough excess energy to power an estimated 20,000 households.

Let's look at another example in the U.S. There are numerous states, including New York, Texas, Maine and Pennsylvania that have deregulated electric and/or gas markets. This suggests great business opportunities. In Brooklyn, New York, a microgrid peer-to-peer energy transactions market was launched. The utility grid connects people who have solar panels on their rooftops in the Boerum Hill, Gowanus, and Park Slope neighborhoods in Brooklyn with neighbors who want to buy locally generated green energy. Like other microgrids, it operates alongside, but separate from, the traditional energy grid.

The project is sponsored by LO3 Energy, which funds the Brooklyn Microgrid project. LO3 Energy created a system that uses blockchain technology, and let people buy and sell locally generated solar energy within their communities. The blockchain, a digital ledger technology that underpins the digital currency bitcoin, to count up every unit of energy generated by the distributed energy systems. Then those energy units are available to trade on the open market, where they are bought and sold in the local community. Participants will also install smart meters equipped with the technology, which track the energy they generate and consume.

Around the world, similar market experiments are popping up. The UK's first peer-to-peer renewable energy trading platform just launched. It is called Piclo, a collaboration between a cleantech company Open Utility and a renewable supplier Good Energy. Piclo is designed to create a marketplace for energy generators and buyers. And many solar, hydro, and wind generation sites from across England, Scotland, and Wales come to join them. Good Energy says it will also buy up any surplus power generated by its customers, and provide energy from its own network when supply is low.

This peer-to-peer service is possible because those countries share one



thing in common - a deregulated energy market. In a deregulated market, companies can compete for customers, energy prices are not regulated and consumers aren't forced to purchase electricity from their local utility. In a regulated market like Taiwan, a regulatory or government body governs all energy providing processes and consumers can only purchase energy through the local utility. In our case, it is Taipower.

It is very clear that we have a long way to develop Fintech applications in renewable energy sector, given the market is not mature. There is a lot to be done, especially in regulation. It is challenging to change human behaviors and pairing the old with the new. It is challenging to integrate the collaborative economy into the existing economy. But one thing is clear - the shift to green and, ultimately, more sustainable way of business is now unstoppable, whether we join it or not.

*(Steve HUANG is the founder of KiWi Energy, he is devoted to developing a peer-to-peer renewable energy trading platform in Taiwan.*

*Julia YANG is the Founder of Green Impact Academy. Green Impact Academy acts as a Meet Market aggregator in green industries, providing talent development, marketing, and financial plumbing services to accelerate the growth of the green economy.)*

# Memo

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