

Regional Agenda

World Economic Forum on ASEAN

ASEAN 4.0: Entrepreneurship and the Fourth Industrial Revolution

Ha Noi, Viet Nam 11-13 September 2018



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Preface



Justin Wood

Head of Asia-Pacific and Member of the Executive Committee, World Economic Forum

World Economic Forum on ASEAN

ASEAN 4.0: Entrepreneurship
and the Fourth Industrial
Revolution

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REF 151018

This year's World Economic Forum on ASEAN was the second time that we have staged our regional meeting in Viet Nam. The first was in 2010, in Ho Chi Minh City.

During those eight intervening years, the economic story in Viet Nam has been particularly impressive. The country's GDP has nearly doubled in US\$ terms, while the value of exports has nearly tripled. But this story is not unique to Viet Nam. Strong and robust economic growth has been evident right across the 10 countries of ASEAN, and continues at around 5% a year in real terms.

Today, however, we face the age of the Fourth Industrial Revolution. New technologies such as artificial intelligence, advanced robotics, blockchain, autonomous vehicles, the internet of things and many others are collectively causing massive transformations around the world.

Technological change is delivering exciting solutions to persistent problems, and empowering new business models and new forms of social and economic inclusion, especially for lower-income countries. But it is also throwing up important questions that business, government and policy-makers must address. In ASEAN, these transformations

have the potential to generate a highly positive future. But equally, they could cause the strong story currently unfolding to weaken.

Consider the future of jobs. In ASEAN, the labour force is forecast to expand by 11,000 workers every day for the next 15 years. And yet, industrial robots now out-compete low-skilled manufacturing labour. Artificial intelligence threatens ASEAN's service jobs. Self-driving vehicles are already at work in South-East Asia. How will the region's growing workforce find jobs?

Addressing these issues will call for entrepreneurship. At one level, the region must unleash the entrepreneurial spirit of individuals and small and medium-sized enterprises (SMEs) to build new companies and new industries. But just as important, ASEAN must embrace entrepreneurship in the crafting of policy, governance models, geopolitical relationships and new approaches to inclusive growth. In short, there must be entrepreneurship not only in the business interest, but in the public interest too.

This was the key question on the agenda at our meeting in Ha Noi: How to steer the transformations of the Fourth Industrial Revolution in a positive direction for the region?

Some 1,000 participants from 45 countries gathered to debate these issues, and many others. And, for the first time, the meeting featured 80 of the region's most exciting and dynamic start-ups to help enrich the understanding of what the future will look like. The discussions and workshops were both frank and constructive, generating a wealth of ideas for the future.

The World Economic Forum is grateful to all who joined the meeting for their commitment and dynamic participation. We look forward to welcoming you to next year's gathering.

Meeting highlights

The meeting in numbers



More than **1,000** participants from **45** countries



80 of the region's most dynamic start-ups



More than **90** public figures, representing all **10** ASEAN nations, including **8** heads of state/government



More than **70** young leaders, including Global Shapers, Social Entrepreneurs and Young Global Leaders



Over **650** business participants



More than **50** participants are leaders in media, civil society and academia

TopLink

For session highlights, blogs, videos and meeting-related documents, plus Forum insights, visit <https://toplink.weforum.org/>

Meeting Co-Chairs



“As education has become more and more inclusive ... the economies are still not taking full advantage of that really fantastic resource: well-educated young women in their workforce.”

”
Anne-Birgitte Albrechtsen, Chief Executive Officer, Plan International, United Kingdom



“ASEAN does recognize the 4.0 challenge and I am optimistic about what the ASEAN secretariat will do now going forward.”

”
Nazir Razak, Chairman, CIMB Group Holdings, Malaysia



“We can still be making more progress [towards integration] but be extremely mindful about the consequence for those who ... are left behind.”

”
Sri Mulyani Indrawati, Minister of Finance of Indonesia



“On US-China relations, if you look at just the trade side it does look tense, but I think these are two big players on the global stage with strategic calculations that sometimes diverge, but also at times converge. And I think on the North Korea nuclear issue, they have converged.”

”
Kang Kyung-Wha, Minister of Foreign Affairs of the Republic of Korea



“For all the talk of trade conflict ... the underlying fundamentals of this part of the world remain solid. And therefore while there may be turbulence in the near term, we should expect and can believe in a very positive future for ASEAN and beyond.”

”
Kevin Sneader, Global Managing Partner, McKinsey & Company, Hong Kong SAR, China



“We have to train people so they are adept at change, not only technological training, but soft skills too. I think the Fourth Industrial Revolution is more about a mindset revolution.”

”
Nguyen Manh Hung, Acting Minister of Information and Communications of Viet Nam

The view from the top

In the Opening Plenary of the World Economic Forum on ASEAN, leaders gave impassioned speeches on some of the priorities they see for the region in the era of the Fourth Industrial Revolution

On trade

“

We are moving from a unipolar to a multipolar world, and from a uniconceptual to a multiconceptual world. This is leading to increased fragility of our global system, while also enhancing the potential for global conflicts, as we see now with the potential of trade wars. Despite our differences, we should never forget that we have common global interests and a common global responsibility. Just think of preserving our natural resources. The ASEAN way of striving for consensus among diverse countries can serve, particularly during difficult times, as a good role model for our world.

”

Klaus Schwab, Founder and Executive Chairman, World Economic Forum

“

In the world economy today, we are heading towards ‘Infinity Wars’. Not since the Great Depression of the 1930s have trade wars erupted with the intensity of today. But, rest assured, I and my fellow Avengers stand ready to prevent Thanos ... We must prevent the trade wars from becoming the ‘Infinity Wars’. You might be wondering who is Thanos? Thanos is not any individual person. Thanos is inside all of us. Thanos is the misguided belief that, in order for us to succeed, others must surrender.

”

Joko Widodo, President of Indonesia

“

The world economy is picking up, but uncertainties and destabilizing factors are on the rise, particularly as some countries’ protectionist and unilateral measures are gravely undermining the rules-based multilateral trading regime, posing a significant hazard to the world economy ... We must uphold openness and mutual benefits. We can learn from history that self-isolation will lead nowhere and only openness for all represents the right way forward.

”

Hu Chunhua, Vice-Premier of the People's Republic of China



Borge Brende, President, World Economic Forum; Daw Aung San Suu Kyi, State Counsellor of Myanmar; Lee Hsien Loong, Prime Minister of Singapore; Samdech Techo Hun Sen, Prime Minister of the Kingdom of Cambodia; Joko Widodo, President of Indonesia; Nguyen Phu Trong, General Secretary of the Communist Party of Viet Nam; Nguyen Xuan Phuc, Prime Minister of Viet Nam; Klaus Schwab, Founder and Executive Chairman, World Economic Forum; Thongloun Sisoulith, Prime Minister of the Lao People's Democratic Republic; Hu Chunhua, Vice-Premier of the People's Republic of China; Ranil Wickremesinghe, Prime Minister of Sri Lanka; and Prajin Juntong, Deputy Prime Minister and Minister of Justice of Thailand

On the Fourth Industrial Revolution

“

I believe this that this Fourth Industrial Revolution will create more jobs than it destroys, not only in the long-term but even in the short-term ... I believe that the Fourth Industrial Revolution will not increase inequality, but will reduce it, because we see dramatic cost reductions for many products and services, which will make them cheaper and more accessible to lower-income people ... As our economies develop they are being driven increasingly not by natural resources that are limited, but by human talent, which is unlimited.

”

Joko Widodo, President of Indonesia

“

[As well as opportunities] the Fourth Industrial Revolution will also cause anxiety... the need for higher education and skills ... the unequal access to knowledge and the unequal distribution of benefits ... the potential for IT-related crimes that could affect national and regional security ... the lack of proper regulations for the governance of data and privacy.

”

Samdech Techo Hun Sen, Prime Minister of the Kingdom of Cambodia

“

The Fourth Industrial Revolution will change business models, economies and societies in fundamental and disruptive ways. Global competition will be determined by innovative capabilities and capacities, and less by cost factors ... the countries that succeed in the era of the Fourth Industrial Revolution will be characterized by innovative and entrepreneurial ecosystems ... [We must] provide the necessary conditions for start-ups and SMEs to thrive and flourish and provide the necessary jobs.

”

Klaus Schwab, Founder and Executive Chairman, World Economic Forum

“

When we think of ASEAN, many think of diverse and abundant natural resources to be harnessed, as well as the factory of the world. But with the Fourth Industrial Revolution ... advanced technologies and the digital economy are the new areas of big potential ... The opportunities brought about by the Fourth Industrial Revolution for ASEAN are indeed enormous.

”

Nguyen Xuan Phuc, Prime Minister of Viet Nam

On ASEAN economic integration

“

ASEAN is committed to further economic integration. This is an important condition for the Fourth Industrial Revolution because it's about building new networks, creating new synergies, and staying connected ... The Fourth Industrial Revolution is a dynamic and continuing process. We can't predict exactly how it will unfold, but I am optimistic about our future, because ASEAN has its own competitive strengths. And, by pooling our ideas and resources and integrating our economies, we will be in a strong position to ride on this fourth wave.

”

Lee Hsien Loong, Prime Minister of Singapore

“

For Thailand, the Fourth Industrial Revolution represents a big turning point in how we live and do business ... At the national level, the Royal Thai government came up with the Thailand 4.0 policy ... But, the government also recognizes that digital technology connects all of us together. Thailand cannot go forward alone ... As chair of ACMECS this year, we place emphasis on the linking of the five Mekong countries together to create a seamless regional value chain and lead our region forward into the era of the Fourth Industrial Revolution.

”

Prajin Juntong, Deputy Prime Minister and Minister of Justice of Thailand

“

ASEAN must respond to the Fourth Industrial Revolution as a region ... Data is the foundation of the Fourth Industrial Revolution. We need to establish the ground rules for an ASEAN code on data-sharing cooperation to standardize the effective use and sharing of data ... [In addition] Viet Nam wants to propose cross-ASEAN single rate mobile coverage.

”

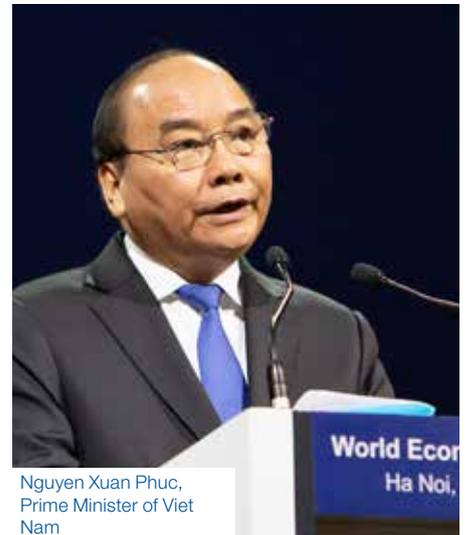
Nguyen Xuan Phuc, Prime Minister of Viet Nam



Lee Hsien Loong, Prime Minister of Singapore



Prajin Juntong, Deputy Prime Minister and Minister of Justice of Thailand



Nguyen Xuan Phuc, Prime Minister of Viet Nam

On ASEAN's demographic dividend

“

One of the most important aspects of the Fourth Industrial Revolution is the human factor ... We have to teach our people new skills and give them the confidence to take the new learning experience bravely and with the resolve to succeed ... Our approach to the Fourth Industrial Revolution is based on our belief in the creativity, the empathy and the stewardship qualities of our people, especially our large young population.

”

Aung San Suu Kyi, State Counsellor of Myanmar

“

I believe Cambodia is well-placed to weather the Fourth Industrial Revolution ... Our demographic dividend means increasing numbers of young people who are much faster in absorbing new technologies ... There is clear evidence that digitalization is spreading quickly to all sectors of the economy, such as through fintech and e-commerce ... Our young consumers are rapidly accustoming themselves to the use of these technologies.

”

Samdech Techo Hun Sen, Prime Minister of the Kingdom of Cambodia

“

In Indonesia, our large young population is driving a transformation in e-commerce and a digital economic boom. I believe that ASEAN will be at the forefront of this Fourth Industrial Revolution.

”

Joko Widodo, President of Indonesia



On closing ASEAN's development gaps

“

Myanmar is one of those countries that has been practically bypassed by the Third Industrial Revolution, and we have been forced to plunge straight into the fourth one. The activity usually associated with latecomers like us is leapfrogging. But my colleagues tell me that what we have been engaged in is not mere amphibian hops, but quantum leaps. Because quantum leaps are absolutely necessary for countries that have been left behind by events of the past few decades.

Let me give you a concrete example. Five years ago, the price of cellphones was about \$1,500. Today you can buy one for \$1.50. Access to broadband has leapt from less than 1% to 105%. That is in five years. Because of our access to cellphones, we have been able to progress in unexpected directions. For example, Myanmar has not had a banking culture. People think their money is most secure under their mattress rather than in a bank. But now, we can forge ahead and make the unbanked bankable through cellphones.

”

Aung San Suu Kyi, State Counsellor of Myanmar

“

The Fourth Industrial Revolution will allow SMEs to plug more effectively into regional and global value chains and allow less-developed countries to leapfrog traditional industry into modern industry.

”

Samdech Techo Hun Sen, Prime Minister of the Kingdom of Cambodia

“

We need to think about some of the challenges that may arise from the Fourth Industrial Revolution, such as ... disparities in benefits from advances in science between countries. Development gaps ... will become social problems if we do not have appropriate measures to address them ... I believe that for ASEAN, even though we have made efforts to advance together, we still see the challenges of having gaps in many areas ... Because Lao PDR still has a basic industrial structure, tools and production facilities, we need to increase the exchange of lessons and increase cooperation at regional and international levels with a view to enable us to integrate into regional and international economies in this era of the Fourth Industrial Revolution.

”

Thongloun Sisoulith, Prime Minister of the Lao People's Democratic Republic

“

The Fourth Industrial Revolution means taking shortcuts in industrial development. ASEAN can speed past traditional phases of industrial development by boldly adopting artificial intelligence, utilizing automation, unmanned aerial vehicles, satellites and sensor systems to improve productivity and the efficiency of resource use ...

However the challenges that ASEAN will face are likewise enormous ... The Fourth Industrial Revolution has the capacity to rapidly boost the incomes of citizens equipped with skills and knowledge, thus further widening the income gap and creating risks of social instability.

”

Nguyen Xuan Phuc, Prime Minister of Viet Nam



A discussion table in the “Governing Tech Transformations in Real Time” workshop



Dinh Thi Quynh Van, Senior Partner, PwC, Viet Nam

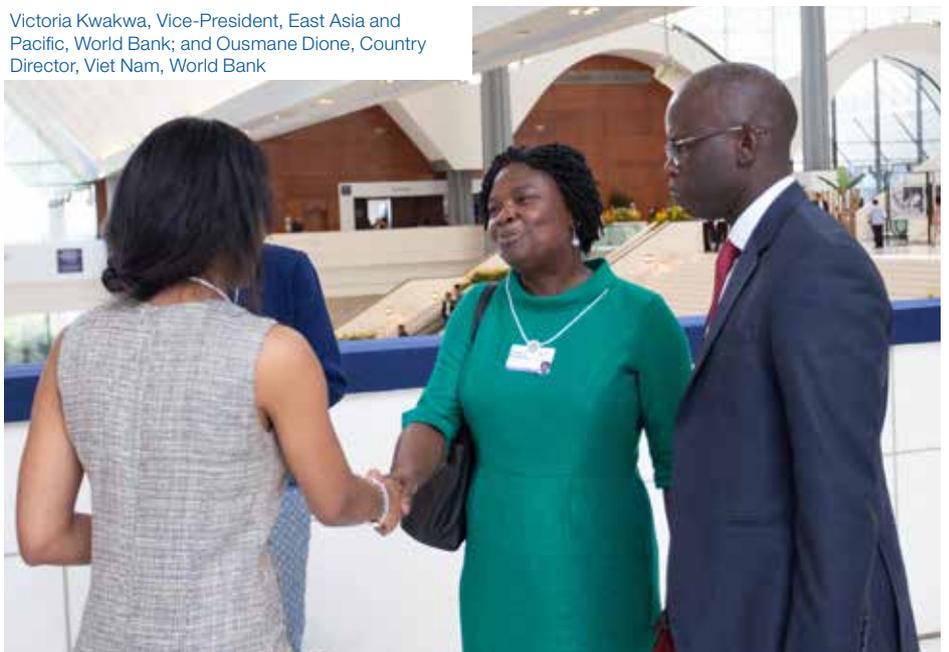


Dancers during the Cultural Soiree



Airlangga Hartarto, Minister of Industry of Indonesia

Victoria Kwakwa, Vice-President, East Asia and Pacific, World Bank; and Ousmane Dione, Country Director, Viet Nam, World Bank



Project Progress

Results, announcements and updates from the meeting on projects being run in ASEAN on the World Economic Forum platform



Digital ASEAN accelerates

Digital ASEAN, one of the World Economic Forum's flagship initiatives in South-East Asia, held two workshops during the meeting, convening 90 government ministers, business leaders and policy-makers to set concrete goals for the year ahead.

Launched in April 2018, the initiative has five task forces focused on: harmonizing data policy and governance rules in ASEAN; upgrading broadband access, quality and speed; developing digital skills; improving cooperation for cybersecurity; and building a pan-regional e-payments ecosystem. Following the workshops, each task force now has a clear roadmap for the coming 12 months.

Several parties made strong announcements during the summit that are linked to the work. Under the Digital Access task force, Nguyen Xuan Phuc, Prime Minister of Viet Nam, together with Nguyen Manh Hung, Acting Minister of Information and Communications of Viet Nam, set out a bold vision to build a "Flat ASEAN", including the goal of abolishing international roaming charges imposed on ASEAN citizens when travelling across the region. Separately, under the Digital Skills task force, Google, the US-based tech giant, pledged to train 3 million SME workers in digital skills across all 10 countries in South-East Asia by 2020.



New partnerships against malaria in Asia-Pacific

The Asia Pacific Leaders Malaria Alliance (APLMA) announced support for two new initiatives during the meeting to accelerate the elimination of malaria and improve health outcomes in the Asia Pacific region. The two initiatives are Blended Finance for Impact and M2030.

Blended Finance for Impact is a partnership of the Asian Development Bank (ADB), the Global Fund to Fight AIDS, Tuberculosis and Malaria, and APLMA to enable and increase long-term integrated financing for health, including malaria. M2030 aims to bring together some of the most influential businesses in Asia to raise funds, engage consumers as agents of change and sustain political support for malaria elimination (See page 50 for full story).



Getting drastic with plastic

The World Economic Forum's circular economy team introduced the Global Plastics Action Partnership (GPAP) to key stakeholders at the meeting, and secured strong support to launch a regional initiative in the months ahead. Indonesia, represented by Luhut Pandjaitan, the Coordinating Minister for Maritime Affairs, agreed to be the first collaborating country for GPAP in the ASEAN region.

Like the rest of the world, the ASEAN region has experienced a rapid growth in plastic production and use over the past few decades. Though per capita plastic consumption is lower than in other regions, in most ASEAN countries there is a severe lack of adequate waste management that amplifies its negative impact. Five of the top 10 countries ranked by size of mismanaged plastic waste are ASEAN member states.

GPAP is a global public-private delivery mechanism that aims to tackle plastics pollution, in particular the plastic pollution of rivers, deltas and the ocean. By engaging with governments, regional bodies, international organizations and business, as well as innovators and civil society groups, the GPAP seeks to avert the growth in global plastic pollution by 2025.

The Forum has catalysed the GPAP through its Platform for Accelerating the Circular Economy (PACE) and in collaboration with the Friends of Ocean Action, whose secretariat is jointly managed by the World Economic Forum and the World Resources Institute (See page 27 for full story).



New ideas for agriculture take root

More than 170 senior leaders and decision-makers in the agriculture industry gathered on the sidelines of the meeting at the Grow Asia Forum 2018, co-hosted by the Grow Asia Partnership and the Ministry of Agriculture and Rural Development of Viet Nam in collaboration with the World Economic Forum. Leaders defined strategies for transforming agriculture and food systems in the region anchored in public-private policy dialogue and Fourth Industrial Revolution technologies, with smallholder farmers at the core of profitable, sustainable and inclusive supply chains.

Leaders committed to working in partnership with other stakeholders through the Grow Asia platform to scale the impact of their work and ensure South-East Asia's smallholder farmers are equipped with the right technologies, knowledge and skills to meet the increasing global demand for sustainable food. A Knowledge Marketplace was launched for the first time at the event and offered participants case studies in agricultural innovations, creative solutions and resources (See page 32 for full story).



Klaus Schwab, Founder and Executive Chairman of the World Economic Forum, released the Vietnamese translation of his book "The Fourth Industrial Revolution" on the eve of the meeting



New energy dynamics

Leaders in the oil and gas and electricity sectors met during the meeting to agree on a process for crafting a new vision for the region's energy transition.

The energy sector in ASEAN needs a coordinated and comprehensive vision for how the region can balance competing priorities for meeting rising energy demand, promoting environmental sustainability, and ensuring universal access to modern forms of energy. Given the region's rising energy demand, all sources of energy, including conventional and renewable, will need to be developed.

Stakeholders from industry, government and regulators agreed on the importance of a shared regional vision for the energy transition, and the need for more coordination in policy-making across ASEAN member states in areas such as harmonized standards, regional integration of energy markets, improved interconnectivity and eliminating barriers to investment.

With the support of regional stakeholders, the World Economic Forum will facilitate a multistakeholder platform in ASEAN to create a common vision for ASEAN's energy transition, and to catalyse public-private collaboration.



Production assembly

The World Economic Forum released a white paper at the meeting assessing critical policy ideas for how the manufacturing sector in ASEAN can navigate the disruptions of the Fourth Industrial Revolution.

The paper, Shaping ASEAN's Future Readiness: Collaborations to Advance Manufacturing and Production, examines the impact of new technologies on ASEAN's manufacturing landscape and proposes a set of 28 ideas for how to respond. The central theme of the 28 ideas is building multilateral collaboration as a way to strengthen the region's economic resilience.

On the back of the report, regional leaders involved in the Forum's Shaping the Future of Production in ASEAN initiative took part in a workshop and identified six ideas to be carried forward for further development. The six ideas are: setting up 3D printing & prototyping centres of excellence; jumpstarting development of smart packaging capabilities; supporting the development of digital logistics providers & solutions; establishing a 4IR learning & competency academy for SMEs; launching an education and adoption platform for sustainable manufacturing; and creating seamless data exchanges for faster goods flows.



Driving the demographic dividend

With a large young population in ASEAN, the World Economic Forum has a programme of activities designed to help unlock the region's demographic dividend. This workstream has two key elements: young people and young companies, and both were featured during the meeting.

In line with the meeting theme of entrepreneurship, the Forum brought 80 of the most dynamic and exciting early-stage start-ups from across ASEAN to join the programme and engage in key discussions on technological transformation and how to upgrade innovation ecosystems (See page 21). On young people, the Forum released the results of a survey of 64,000 ASEAN youths designed to understand their perspectives and concerns on the Future of Work (See page 34).



Mobilizing money

The World Economic Forum's Sustainable Development Investment Partnership (SDIP), a coalition of 41 public, private and philanthropic institutions, convened during the meeting to shape the group's work in ASEAN.

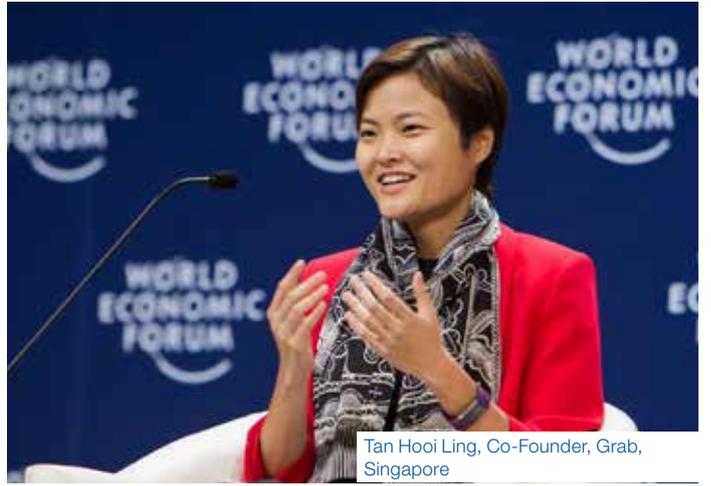
The primary focus for the group is about developing innovative ways to mobilize private capital to address financing gaps for critical development projects such as infrastructure and education that governments alone cannot fund.

During the workshop, participants acknowledged that private capital remains plentiful in the region, but that investors struggle to find projects with the right risk profile or financial returns. In the year ahead, it was agreed that the SDIP team will focus on assisting countries to pivot from public and donor-funded projects to public-private financing approaches. At present, some projects that are attractive to the private sector are funded by public money, while many unattractive projects are offered to private investors.

Another key idea to be developed is the idea of asset recycling, whereby governments fund the construction of new infrastructure – often the most risky part of a project – by selling brownfield assets with lower perceived risk to the private sector, thereby releasing capital for new greenfield investments.



Yutaka Sanada, Regional Senior Vice- President; Head, Operations Committee, Asia and Oceania, Nissan Motor Co.



Tan Hooi Ling, Co-Founder, Grab, Singapore



Truong Hoa Binh, Deputy Prime Minister of Viet Nam



Edward Thai, Partner, 500 Startups



Denis Brunetti, President, Viet Nam and Myanmar, Ericsson

The session on Digital Markets in ASEAN in the Arena Room



Kaushik Das, Managing Partner, South-East Asia, McKinsey & Company



Woman playing the Dan Bau at the Welcome reception



Lynn Kuok, Associate Fellow, International Institute for Strategic Studies

Cultural connection

Art, music, and literature play an important role in enriching the discussions at the meeting



Participants examining the photography exhibition "Removed"



Removed – ASEAN edition

The meeting featured a special photography exhibition from artist Eric Pickersgill called "Removed" that was commissioned by the World Economic Forum especially for the meeting.

The series of photographs, which were shot in Ha Noi, Jakarta, Singapore and Yangon, created a South-East Asian version of similar work that Pickersgill has produced in his native US. The photos depict the human relationship with technology by showing people using smartphones in their everyday life, but with the subjects of the pictures posing without their devices.

ASEAN is one of the fastest-growing smartphone markets, with people spending on average 3.6 hours on the mobile internet every day. Technology has tremendously benefited society but has also altered lifestyles and behaviours. While smartphones provide access to almost everything, they decrease the human connection to the here and now.

The princess and the pauper

Le Cat Trong Ly, a Vietnamese folk singer and one of the country's leading musicians, not only spoke about the evolving role of music and culture in contemporary ASEAN, but also performed during the closing plenary session.

One of the songs she performed, Chenh Venh, was inspired by Vietnamese mythology, and glorifies the love story of Princess Tien Dung and Chu Dong Tu, the poorest man in the country. Even though the king disapproved of their love, they married. Le Cat Trong Ly chose the song for its message of overcoming differences and embracing diversity, which is a central aim of ASEAN's community building efforts.



Eighty South-East Asian start-ups feature in the meeting

With the Fourth Industrial Revolution causing widespread technological disruption, the importance of entrepreneurship is more important than ever

Some of the most innovative start-up companies from across the ASEAN region were featured for the first time at the 2018 World Economic Forum on ASEAN.

Nearly 300 start-ups from across South-East Asia applied to join the meeting, with 80 selected by a panel of judges made up of leaders from start-up accelerators, venture capital funds, technology experts and the media. The start-ups came from a wide variety of sectors, including financial services, logistics and e-commerce, agriculture, media and healthcare. The products and services they are developing range from smart fertilizers that reduce nitrous-oxide emissions (a potent greenhouse gas) to sharia-compliant bitcoins and new healthcare options for elderly care.

“The start-ups made an important contribution to shaping the debates at the meeting about the impact and course of new technologies and disruptive business models,” said Justin Wood, Head of Asia Pacific and Member of the Executive Committee at the World Economic Forum. “Just as important, they enriched important discussions about how to upgrade innovation ecosystems and promote entrepreneurship.”

During the meeting, the start-ups were fully integrated into the official programme, but also had their own programme track to discuss critical issues facing entrepreneurs, from finding finance to achieving regional scale with limited resources. There was also a dedicated “hub” for the start-ups to share their stories of disruption and transformation.

4xLabs	Global Commerce Technologies	Pintar)
Amartha Mikro Fintek	Gnowbe	Queenrides
Ayannah Business Solutions (dba Ayannah)	GoGet	Revolution Precrafted
BanhJi	Growpal (PT. Say Grow Indonesia)	Ricult
Bay Group Holdings (CapitalBay)	Health at Home	Ritase.com
Bloom Technologies	HelloGold	Ruangguru
BookMeBus	HOME Group	Rynan Smart Fertilizers
Boxgreen	InnoVantage Solutions	ScanTrust
BrandBeats Music Marketing	Jirnexu	Screea
Call Levels	Jules Corporation	SEA Ventures
CROWDE	Kalibr Technology Ventures	SiamSquared Technologies (Thailand)
Crowdo Holdings	Kargo Singapore	SmartContract (Thailand)
CXS International	LOGIVAN Technologies	Snapcart Singapore
Design for Dream	mClinica	Socialgiver
DocDoc	Miaki & Co.	StyleTheory
Doctor Anywhere	Morakot Technology	Teknologi Mandiri Indonesia
Doerscircle	Nalagenetics	Triip
EasyParcel.com	Neuron Mobility	Tripfez Travel
Edukasyon.ph	Nusantara Holdings	Trust Oo
EkkBaz	OxfordCaps	TSG Therapeutics
Eureka	Pawoon	uHoo
Exora Technologies	Picha	Waitr
FairDee Insurtech	PT 8villages Indonesia	WARESIX
Finaxar	PT Gadai Pinjam Indonesia	Winnow
First Circle	PT Jejaring Makanan Indonesia	Youthmanual.com
GetLinks	PT SOCIAL BELLA INDONESIA	
	PT Warung Pintar Sekali (Warung	

Click here to see the full list of selected start-ups

<https://weforum.ent.box.com/s/yk3s8k82jg5k0iyhc7jv4sdokm8vx3ob>

Regional Governance

How can the region respond to fluid geo-economics, shifting trade relationships and new power dynamics to secure peace and prosperity for all? Participants contributed to shaping a new vision for driving regional integration as the Fourth Industrial Revolution changes the nature of cross-border trade and investment.



Can ASEAN turn geostrategic and technological disruption into opportunity?

By Børge Brende, President of the World Economic Forum; and Justin Wood, Head of Asia Pacific at the World Economic Forum

Is the Association of Southeast Asian Nations (ASEAN) resilient enough to thrive amid the regional and global transformations taking place today? While the global economy continues to achieve broad-based expansion, disruptive economic, geostrategic and technological forces may threaten the gains ASEAN has achieved in recent years. To survive, ASEAN countries must make important decisions about the role of their community in regional affairs. With the right choices, the region can convert disruption into opportunity for a resilient future.

The past five decades have seen an impressive turnaround in ASEAN. A region of turbulence, disharmony and under-development in the 1960s is today one of relative peace and strong economic success. Much of the credit can go to the community-building efforts of South-East Asian nations under the ASEAN umbrella. But the region also benefitted strongly from the post-World War II global architecture and institutions that promoted inward flows of investment and outward flows of exports.

Today, this global backdrop is in a state of profound transformation. The benefits of free and open trade are being questioned. International institutions are being challenged. New geopolitical powers are rising. And, despite ups and downs, the global economy continues to tilt further towards emerging markets. All of this gives opportunity for new and competing visions for how the world should be organized and run.

Alongside rising geopolitical uncertainty, ASEAN countries must grapple with the Fourth Industrial Revolution. The exponential development of technologies such as artificial intelligence, advanced robotics, precision medicine and autonomous vehicles is transforming economies, businesses and societies.

ASEAN nations will feel the effects of the Fourth Industrial Revolution acutely. Consider the future of jobs. The working-age population in ASEAN is increasing by 11,000 people every day and will continue at this rate for the next 15 years. This demographic expansion is happening just as many existing jobs will be substituted by intelligent automation and AI. Systems of taxation that rely on labour income will come under pressure. National budgets will be challenged at exactly the moment when ASEAN nations must increase their investment in reskilling labour forces and developing infrastructure for this new age.



A discussion table in the “New Energy Frontiers for ASEAN” workshop

Or consider the future of manufacturing. Technologies such as 3D printing and cheap industrial robots are enabling products to be made in small, highly-customized forms rather than large batch runs of uniform goods. For ASEAN, the shift from highly centralized global supply chains to highly localized and distributed production systems could have a deep impact on export revenues and the investment that drives it.

Faced with these disruptive shifts, ASEAN must strengthen its community. Economically, regional resilience can be bolstered through building a genuine single market: ASEAN has 630 million citizens with rapidly-rising spending power. Fully implementing the ASEAN Economic Community (AEC) will be key. With a strong regional market, ASEAN can drive its own economic destiny, rather than relying on demand from external markets, and will be better insulated against potential protectionist shocks.

Creating a single market for services will be critical. Here, especially, ASEAN nations must respond to the Fourth Industrial Revolution, tackling issues such as harmonizing the rules governing the use of data. New technologies – such as digital platforms, big data analytics and cloud-based services – do not recognize national borders and function best when they operate at scale. With a single digital market, ASEAN can develop truly pan-regional services in finance, healthcare, education and e-commerce.

Of course, ASEAN should not build a fortress that is closed to the world. Indeed, ASEAN has long been praised for its “open regionalism”, whereby the bloc pursues economic integration among member states, but without discriminating against non-ASEAN economies. This open regionalism has been integral to ASEAN’s economic strategy from the beginning, and continues with the soon-to-be concluded Regional Comprehensive Economic Partnership joining ASEAN with China, Japan, South Korea, India, Australia and New Zealand.

The need to strengthen the political-security community is equally critical. With the architecture of global governance being challenged, ASEAN member countries must make their voice heard if they want a world that supports their interests. Individually, the countries of South-East Asia carry little weight, but collectively they represent almost one-tenth of the world’s population and nearly 5% of its GDP.

Historically, ASEAN has played a pivotal role in facilitating regional relationships, giving rise to the notion of “ASEAN centrality” in Asia. In 1993, the bloc set up the ASEAN Regional Forum – now with 27 members – to foster dialogue on political and security concerns. In 2005, ASEAN set up the East Asia Summit, currently with 18 member states.

Today, however, the geopolitical context is evolving. As other powers rise, there is a risk that ASEAN loses its collective commitment to a shared vision for the region and a shared stance on geopolitical issues. Many observers believe that external nations are undermining ASEAN unanimity by developing dependencies with individual nations built on investment, trade and assistance. Unless ASEAN stands strong as a bloc, it will lose its ability to convene regional actors, mediate disputes and shape principles for relationships and interaction.

Now is a moment to reassess the so-called “ASEAN way”, characterized by consensus decision-making and non-interference. This operating principle has served ASEAN well, and the bloc would be unwise to jettison it. But a reassessment is needed if ASEAN is to speak with a strong voice on regional matters, rather than allow dissenting voices within the group to prevent collective positions being adopted. Given that existing global institutions are being challenged, and given rise of Asia in global affairs, ASEAN must reinforce its ability to influence the debate.

In an increasingly uncertain world, the need for the nations of ASEAN to deepen their community and their commitment to integration and collaboration is stronger than ever.

Asian leaders call for rules-based geopolitics

Asian countries must defend the global system of rules-based multilateralism and reject unilateral and protectionist action, said a panel of regional leaders in a debate on geopolitical priorities.

“We must resist any unilateral attempt to change the status quo in Asia,” said Taro Kono, Minister of Foreign Affairs of Japan. “We must defend the rules-based international order and stand up against any unilateral challenges.” He went on to highlight the situation in global trade as one of the key areas where the principles of multilateralism must be preserved.

Ranil Wickremesinghe, Prime Minister of Sri Lanka, agreed: “I worry about what is happening to the multilateral order. Is it decaying? Is it becoming diminished? Or can we strengthen it? If the system is no longer there, what will replace it?” He added that many of the current frictions in the global multilateral system are the result of the ongoing global rebalancing of economic power between the US and China. “I am concerned about the rebalancing of the global order in the context of the rise of China.”

Kang Kyung-Wha, Minister of Foreign Affairs of the Republic of Korea, echoed Minister Kono’s views on the perilous status of global trade. “We see rising protectionism and we see doors closing. You can see it in global attitudes to immigration, but it is especially visible in trade,” she said. “Korea is a big trading nation, so the prospect of trade wars concerns us a lot.”

Lynn Kuok, Associate Fellow, International Institute for Strategic Studies (IISS), Singapore, raised concerns about the South China Sea, and the fact that China is consolidating its position there in spite of growing protests from smaller nations. She asked whether “might or right” would govern

behaviour in the region, arguing that relying on the rule of law rather than economic and military strength would be a much healthier outcome.

Prime Minister Wickremesinghe raised similar concerns about the Indian Ocean. “The issue of what happens in the Indian Ocean, or what is often now called the IndoPacific is important. We have to ensure that the rule of law is observed in our interactions.”

In assessing other risks, Minister Kang expressed her optimism at the ongoing reconciliation on the Korean Peninsula. “Compared to one year ago, we are now getting traction on the denuclearization and peace process. The progress has been significant,” she said, “But we have a very long way to go. It is still a daily concern to keep the process moving forward.”

Pham Binh Minh, Deputy Prime Minister and Minister of Foreign Affairs of Viet Nam, expressed concern about the potential for the Fourth Industrial Revolution to widen the development and income gap between nations. “If countries cannot grasp the opportunities of the Fourth Industrial Revolution, they will be left behind, and this will diminish their geopolitical power.”

Many of the panellists also raised concern about the impact of climate change. “Seawater levels are getting higher, typhoons are getting stronger, rainfall is getting heavier,” said Minister Kono. “Storms that were supposed to happen once every 100 years have happened twice in two years. It’s not just an environmental issue, but involves water supply management and food security. We really need to be serious about taking care of this issue.”



Ranil Wickremesinghe,
Prime Minister of Sri
Lanka



Pham Binh Minh,
Deputy Prime Minister
and Minister of Foreign
Affairs of Viet Nam



Taro Kono, Minister of
Foreign Affairs of Japan



Thanathorn Juangroongruangkit, Party Leader, Future Forward Party, Thailand

Talking 'bout my generation

ASEAN is a young region with old politicians, participants heard in a session discussing next-generation political movements in ASEAN.

The median age of the population in most ASEAN countries is 30 or under, with only Thailand and Singapore exceeding that with median ages of 38 years and 40 years, respectively, according to 2015 numbers. Yet the men and women who rule these young polities belong to a different generation.

Two new parties are trying to change that. In Indonesia, the Indonesian Solidarity Party caps the maximum age to register as a party member at 45 years old, while 75% of its ranks are under 30. And in Thailand, the Future Forward Party aims to craft a new political narrative from that of the ruling military government, with a youthful programme of democratic reform.

Four years ago, Grace Natalie realized that "politics is not evil; it can do great good when it's in the hands of the right people." That is when she co-founded the Indonesian Solidarity Party, pivoting from a career in broadcast journalism to create a platform focusing on pluralism, human rights and youth participation. "We're trying to educate the Indonesian public to participate in the political process," she said.

Core members of her party are trained to fundraise and rally volunteers, and many register their personal homes as party offices across Indonesia. Volunteers contribute in kind: printing T-shirts, catering food, providing

meeting venues. The process of interviewing its candidates for Parliament is transparent and broadcast on Instagram and Facebook live. A mobile app is planned for its politicians to report their day's work, receiving feedback from registered constituents who can then give them a rating, "just like you rate an Uber driver."

Thanathorn Juangroongruangkit's story runs parallel to Natalie's. A successful Thai businessman, six months ago the 40-year-old changed track to politics. As party leader of Thailand's Future Forward Party, he wants to inspire a new generation of voters with a different vision to that of the military. "There are many people who have tried to do what I am trying to do," Thanathorn warned. "They end up in jail, in exile abroad, or assassinated. But I have a new tool, and that is social media." Smartphone penetration in the region is already close to 100%, and both political parties are using technology to harness the power of the Web and connect to youth voters.

It is a long road to achieve their initial goals. In Thailand's upcoming 2019 elections, pro-democratic parties must first win seats, and then draft a new constitution as approved by popular referenda. Meanwhile, in Indonesia, elections are just eight months away, and the Indonesian Solidarity Party needs a threshold of 4% of the national vote (around 6-7 million votes) to enter Parliament. But the smallest spark can start a bonfire. "We want to make a disruption," said Grace Natalie. "In the next election, we can make a disruption even with 4%."



Grace Natalie, Chairperson, Indonesian Solidarity Party, Indonesia

Mekong leaders reaffirm commitment to join forces

The leaders of the five countries of the Mekong region – Viet Nam, Cambodia, Lao PDR, Thailand and Myanmar – stressed the need to integrate their countries as a pressing priority in the era of the Fourth Industrial Revolution.

Collectively, the five nations form a significant economic entity. When combined, the population comes to 240 million people, equivalent to the sixth biggest in the world, and the GDP amounts to \$800 billion, making it a G20 economy.

And yet, historically, the five Mekong neighbours have not operated as one single economy. Indeed, they have barely integrated at all. For example, of all the exports produced by these nations, just 8% go to other Mekong countries – in the European Union, by comparison, 67% of the region's exports go to other EU countries.

“We have differences in our starting points and history, but our common vision is integration,” said Nguyen Xuan Phuc, Prime Minister of Viet Nam. “Now, especially with the advent of the Fourth Industrial Revolution, connectivity is critical ... We can no longer depend just

on natural resources, but must look to ... new forms of connectivity that will help the Mekong countries be more dynamic. I believe that the Fourth Industrial Revolution and digital connectivity will accelerate the integration of our region.”

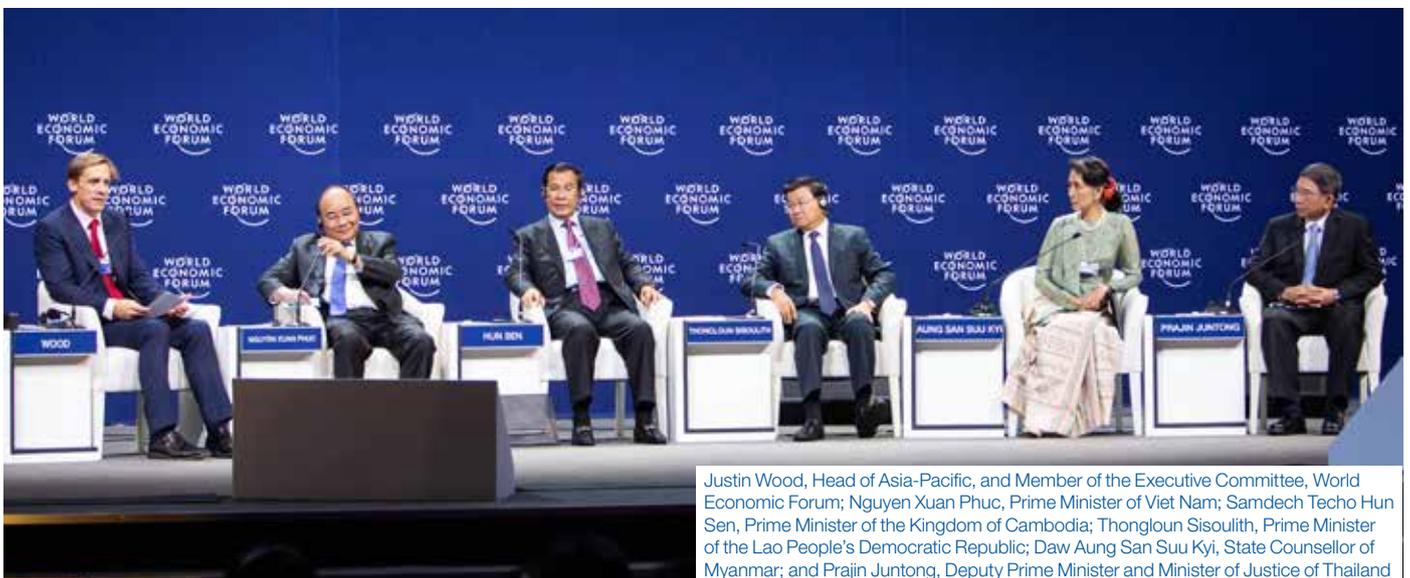
Samdech Techo Hun Sen, Prime Minister of the Kingdom of Cambodia, expressed a similar commitment to integration: “In the past, the five riparian economies of the Mekong were not on good terms because of the context of the Cold War. But even despite the poor intergovernmental relations, the citizens themselves got on well. They traded with each other. In the past, obstruction from governments didn't prevent the people from integrating. Today, with our governments on good terms, and with all of us actively promoting integration, imagine what we can achieve.”

Integration will certainly increase competition between the Mekong countries, but leaders declared their belief that competition will improve their nations. “Competition is good. We should encourage it, because it helps us to develop,” noted Hun Sen.

Aung San Suu Kyi, State Counsellor of Myanmar, agreed: “We don't need to be afraid of competition. Indeed, we welcome it. I would very much like to be a more active member of the Mekong family.”

Prajin Juntong, Deputy Prime Minister and Minister of Justice of Thailand, added that complementarity is just as important as competition, explaining that, even though the Mekong countries produce many similar goods, such as rice, there are also many areas for cooperation. “Energy is an important opportunity for connectivity,” he said. “We see strength in Lao, which exports hydro-electricity to Thailand, and in Myanmar, which exports natural gas to Thailand.”

Aung San Suu Kyi pointed to other areas of complementarity. “If we think of our common cultural heritage, this is something that we can exploit commercially,” she said. “We can produce integrated cultural programmes for tourism across the region.”



Justin Wood, Head of Asia-Pacific, and Member of the Executive Committee, World Economic Forum; Nguyen Xuan Phuc, Prime Minister of Viet Nam; Samdech Techo Hun Sen, Prime Minister of the Kingdom of Cambodia; Thongloun Sisoulith, Prime Minister of the Lao People's Democratic Republic; Daw Aung San Suu Kyi, State Counsellor of Myanmar; and Prajin Juntong, Deputy Prime Minister and Minister of Justice of Thailand



Patricia Dwyer, Founder and Director, The Purpose Business; Tommy Tjiptadjaja, Co-Founder and Chief Executive Officer, Greenhope; Cees 't Hart, Chief Executive Officer, Carlsberg Group; Aimee Gonzales, Executive Director, PEMSEA; Mike Witt, Corporate Director, Environment, Health, Safety and Sustainability, Dow Chemical

Turning the tide on plastic

“Context is key” was the message that emerged from discussions at the meeting as leaders from business and government discussed solutions to ASEAN’s growing plastic pollution crisis. While everyone agreed on the scale of the plastics challenge, participants acknowledged that solutions need to respect ASEAN’s diversity in culture, demographics, geography and economy.

Like the rest of the world, the ASEAN region has experienced a rapid growth in plastic production and use over the past few decades. A severe lack of adequate waste management amplifies its negative impact. Five of the top 10 countries ranked by size of mismanaged plastic waste are ASEAN member states. Much of the resulting plastic pollution ends up in the ocean, given the concentration of populations along vast river systems and coastlines. The region’s rapidly growing economy and the health of its people are at stake. APEC has estimated that plastic pollution is costing the region’s vibrant tourism, fishing and shipping industries \$3.1 billion a year.

In discussing how to move towards a circular economy for plastics in the ASEAN region, participants raised many

ideas. But always the underlying theme was the need to find contextually appropriate and fit-for-purpose solutions.

Consider the possibilities to devise innovative plastic alternatives. A number of bio-based solutions show promise but two considerations are critical as such solutions emerge and scale: The local sustainability of feedstock; and the local environment and conditions necessary to ensure that bio-based plastics mitigate, rather than amplify, environmental stress. Some bio-based plastics are designed to biodegrade, others are not, or will only biodegrade under the right environmental conditions.

Indonesia-based Greenhope, for example, is advancing the development of cassava-based materials, with the dual purpose of supporting local farmers of Indonesia’s large-scale industry; and Evoware is a regional leader in seaweed-based materials. But Tommy Tjiptadjaja, Co-Founder and Chief Executive Officer of Greenhope, is the first to emphasize that such solutions are right for certain applications in certain environments. “When you have a hammer, it may be tempting to go around and hit every nail with it, but we need to be smart about

what solutions we deploy when and where.”

As well as holding official sessions to debate the issues, the World Economic Forum also staged a private workshop to bring together key stakeholders with an interest in plastic pollution. The goal was to introduce the Global Plastics Action Partnership (GPAP) and to secure strong support to launch a regional initiative in the months ahead. Indonesia, represented by Luhut Pandjaitan, the Coordinating Minister for Maritime Affairs, agreed to be the first collaborating country for GPAP in the ASEAN region.

GPAP is a global public-private delivery mechanism that aims to tackle plastics pollution. By engaging with governments, regional bodies, international organizations and business, as well as innovators and civil society groups, the GPAP seeks to avert the growth in global plastic pollution by 2025. The Forum has catalysed the GPAP through its Platform for Accelerating the Circular Economy (PACE) and in collaboration with the Friends of Ocean Action, whose secretariat is jointly managed by the World Economic Forum and the World Resources Institute.

Is pluralism under threat?

The rich diversity of ASEAN cultures has long been hailed as a strength for the region, but this strength is fragile and can be undermined, said panellists in a session debating ASEAN pluralism.

A rich array of languages, religions, ethnicities and political systems offers huge potential for creativity and the cross-fertilization of ideas. But this potential will only be realized if countries can enable societies to function peacefully and embrace diversity. If ASEAN fails to promote pluralism, not only will societies grow unhealthy, but economies will slow.

At present, many societies are struggling with religious intolerance, racial divides and political monopolies. These fault lines are not new, but some observers believe they are becoming worse, with the persecution of minorities, the politicization of religion and the suppression of alternative viewpoints becoming worse.

But, while acknowledging the challenges, some panellists struck a note of optimism about the impact of the Fourth Industrial Revolution. Technology, they argued, creates a much more transparent marketplace of ideas, and democratizes the power to shape opinion. Of course, both good actors and bad actors can use this power, which underlines how old-fashioned leadership and responsibility remain as important today as ever.



“ We are moving from a unipolar to a multipolar world, and from a uniconceptual to a multiconceptual world. This is leading to increased fragility in our global system

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Klaus Schwab, Founder and Executive Chairman, World Economic Forum



Ravi Velloor, Associate Editor, Straits Times, Singapore; Michael Kwok, Chairman, East Asia Region, Arup, Hong Kong SAR, China; Joachim von Amsberg, Vice-President, Policy and Strategy, Asian Infrastructure Investment Bank, Beijing; and Mami Mizutori, Special Representative of the Secretary-General for Disaster Risk Reduction, United Nations International Strategy for Disaster Reduction, Geneva

Rethinking the city

Cities across ASEAN have lost touch with their citizens, and city planners must reconnect to “human” values and priorities, said panellists in a session on urban design.

Starting in the 1960s, the region began building cities for cars instead of people, said Maria Rebecca Palaez Plaza, President of Plaza + Partners, a firm of architects in the Philippines. “We forgot ourselves,” she says, “We need to design cities with people at the epicentre of the town planning narrative.” Today, cities in South-East Asia have poor public transport, and thick congestion. What is needed to make cities human again is to invest in smart, integrated transport systems, starting with subways and buses, bicycles and e-cars.

On top of poor transport design, cities today across ASEAN are under unprecedented and ever rising pressure thanks to population growth. Every year, millions of people migrate from rural areas for jobs, healthcare, education and a better quality of life, putting significant strain on urban infrastructure.

Panellists described a move towards more decentralized urban management and design. The urban services and monolithic city institutions of the past need to be rethought, they suggested, in order to promote better engagement between cities and their communities. While acknowledging the need for joined-up infrastructure, panellists argued that the huge city-centre institutions of the past will eventually be replaced by a network of smaller versions of more relevance to specific communities.



“

It is through education that you teach the people to understand how to create peace and prosperity.

”

Aung San Suu Kyi, State Counsellor of Myanmar



Janil Puthucheary,
Senior Minister of State
for Transport and for
Communications and
Information of Singapore



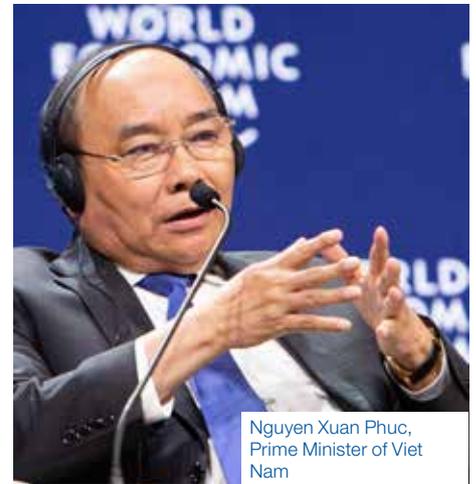
Maria Rebecca Palaez
Plaza, President, Plaza +
Partners, Philippines



Borge Brende, President of the World Economic Forum; and Nguyen Manh Hung, Acting Minister of Information and Communications of Viet Nam



Yasmin Mahmood, Chief Executive Officer, Malaysia Digital Economy Corporation



Nguyen Xuan Phuc, Prime Minister of Viet Nam

World Economic Forum on ASEAN

Ha Noi, 11-13 September 2018



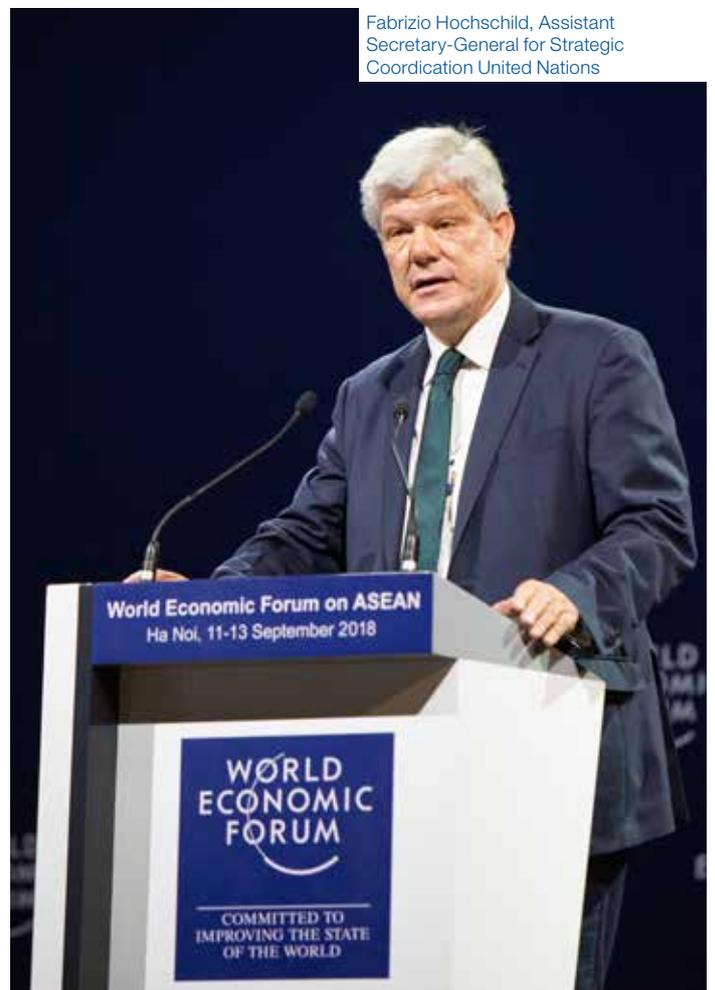
Sri Jegarajah, Anchor, CNBC Asia Pacific; Ignatius Darell Leiking, Minister of International Trade and Industry of Malaysia; Alan Bollard, Executive Director, APEC Secretariat; Yasuo Tanabe, Senior Vice-President and Senior Corporate Officer, Hitachi; Victor L. L. Chu, Chairman and Chief Executive Officer, First Eastern Investment Group



Jonathan Lavender, Global Chairman, KPMG Enterprise; Head, Markets, KPMG International; and Ang Xing Xian, Chief Executive Officer, CapitalBay



Michaelia Cash, Minister for Small and Family Business, Skills and Vocational Education of Australia



Fabrizio Hochschild, Assistant Secretary-General for Strategic Coordination United Nations



John Riady, Group Executive Director, Lippo Group

Economic and business dynamism

Participants sought to understand the drivers of new business models, the shape of emerging economic systems and the requirements for agile governance as digital disruption throws up giant threats and exciting opportunities for a new generation of ASEAN leaders

Grow Asia: Embracing technology to transform food systems

More than 170 senior leaders and decision-makers in the agriculture industry gathered at the Grow Asia Forum 2018, co-hosted by the Grow Asia Partnership and the Ministry of Agriculture and Rural Development of Viet Nam in collaboration with the World Economic Forum. Leaders defined strategies for transforming agriculture and food systems in the region anchored in public-private policy dialogue and Fourth Industrial Revolution technologies, with smallholder farmers at the core of profitable, sustainable and inclusive supply chains.

Leaders committed to working in partnership with other stakeholders through the Grow Asia platform to scale up the impact of their work and ensure South-East Asia's smallholder farmers are equipped with the right technologies, knowledge and skills to meet the increasing global demand for sustainable food. A Knowledge Marketplace was launched at the event and offered participants case studies in agricultural innovations, creative solutions and resources.

Franky Oesman Widjaja, Chairman and Chief Executive Officer of Sinar Mas Agribusiness & Food, and Co-Chair of the Grow Asia Business Council, said: "Technologies can improve how farmers access information, and finance and cultivate their crops. As leaders, our focus must be on sharing learning and experiences on the solutions that can benefit smallholder farmers in Asia. Digitalization and working in close partnership can take our work to the next level."

Grow Asia's regional secretariat presented updates and results from its country-led partnerships, which now operate 37 value-chain projects across five countries in South-East Asia, delivering farmer income increases of over 20%. More than 480 partners are active in the network and the country-led partnerships reach over 690,000 smallholder farmers.

"The past year has seen a real change in how our partners view digital technologies," said Grahame Dixie, Executive Director of Grow Asia. "We heard from large agribusinesses and start-ups alike on how Fourth Industrial Revolution technologies are delivering greater profitability and sustainability to the sector, and we hold enormous hope for technology to improve the way smallholder farmers learn, communicate and trade with agribusinesses. As we move to implement our twin track strategy of strengthening country partnerships while in parallel leveraging the unique reach of the Grow Asia network to effect regional change, we are excited to incorporate the perspectives shared at the Grow Asia Forum into our ongoing work and dialogues."

Grow Asia is a multistakeholder partnership platform promoting cross-regional sharing of knowledge and innovative solutions to improve the productivity, profitability and environmental sustainability of smallholder farmers.

For more information, visit <https://www.growasia.org/>

Missed opportunity: Diaspora networks

Asians account for a large part of the 250 million migrants globally and an equally big chunk of the \$500 billion of remittances they send home every year. But governments could do more to harness the economic power of these overseas citizens, argued a panel of experts at the meeting.

ASEAN, in particular, with more than 20 million citizens living abroad, has a significant diaspora. At present, the chief benefit of this diaspora is remittance flows that are used primarily to fund consumption in the home economy. But government and policy-makers could use their diaspora networks to provide much more, including channelling funds into investments rather than only consumption, and to use overseas workers to bring back technology, knowledge and business connections.

Many countries, such as the Philippines and Bangladesh, are already engaging their diaspora networks for more than remittance flows, including the transfer of skills, knowledge and connections. For example, in the Philippines, the value of remittances is equal to 10% of GDP and has become an important source of capital for small businesses. Just as important, the return of second- and third-generation Filipinos living in places like the US makes a valuable contribution to the domestic economy.

But the connectivity that joins up overseas workers with opportunities at home are not as well developed as they could be, which means that diaspora networks are not delivering on their full potential. In the case of remittance transactions, the costs of transferring money remains extremely high and panellists urged governments to support a new generation of fintech companies that are designing new, more affordable ways of channelling funds.

Lutfey Siddiqi, Visiting Professor-in-Practice at the London School of Economics and Political Science in the UK, is originally from Bangladesh and has invested in diaspora bonds issued by the Bangladeshi government. However, he says the experience has not been easy and could be better managed. Given the size of wealth holdings of overseas Bangladeshis, he said he believes it would be a wasted opportunity not to tap these funds and that the government should reframe the problem by treating the savings that reside in different countries as a single float of hard currency. "If I have one recommendation it is this: harness technology to make sure people like me can have a single seamless bank account between London and Dhaka," he said.



Clara Ferreira-Marques, Associate Editor, Reuters Breakingviews; Shahidul Haque, Secretary of Foreign Affairs of Bangladesh; Lutfey Siddiqi, Visiting Professor-in-Practice, London School of Economics and Political Science; Katrina Coleen Bayog, Director, Operations, Kaya Collaborative, Philippines; and Jose Isidro Camacho, Vice-Chairman, Asia Pacific, Credit Suisse

ASEAN youth bullish about impact of technology on jobs

The youth of ASEAN are highly optimistic about the impact of technology on their job prospects and incomes. According to a survey from the World Economic Forum, some 52% of the under-35 generation across South-East Asia said they believe that technology will increase the number of jobs available, while 67% said they believe that technology will increase their ability to earn higher incomes.

The survey, which was run in partnership with Sea, one of South-East Asia's leading internet companies, gathered results from 64,000 ASEAN citizens through users of Garena and Shopee, Sea's online games and e-commerce platforms, respectively. The majority of respondents were from six countries: Indonesia, Malaysia, Thailand, Viet Nam, Singapore and the Philippines.

The degree of optimism about the impact of technology on the future of work varied strongly by country. The youth of Singapore and Thailand were much more pessimistic in their responses, while the youth of Indonesia and the Philippines were much more optimistic. In Singapore, only 31% said they believe that technology would increase the number of jobs, compared to 60% in the Philippines. The results also varied by level of education. Among those who stated they have no schooling, some 56% said they believe that technology would increase jobs. Among those

with a university degree or higher, only 47% felt the same way.

"Fourth Industrial Revolution technologies like artificial intelligence, advanced robotics and self-driving vehicles will bring significant disruption to the job market," said Justin Wood, Head of Asia Pacific, and Member of the Executive Committee at the World Economic Forum. "No one knows yet what impact these technologies will have on jobs and salaries. Globally there is concern that technological change may bring rising inequality and joblessness. But in ASEAN, the sentiment seems to be much more positive."

The survey also asked young people to reveal what type of company they work for today and where they would like to work in the future. Today, 58% of the respondents work for small businesses – either for themselves, for their family business, or for an SME. A significant portion of youths (one in four) aspire to work for themselves and start their own business. However, many working for SMEs said that they would like to work for a different organization. Today, 17% work in an SME, but only 7% said that they would like to work in an SME in the future. In contrast, the results show a strong preference to work for foreign multinational companies (10% work for one today, but 17% want to work for one in the future) and for governments (13% today compared to 16% in the future).



David Sin, Co-Founder, Group President and Deputy Chairman, Fullerton Health

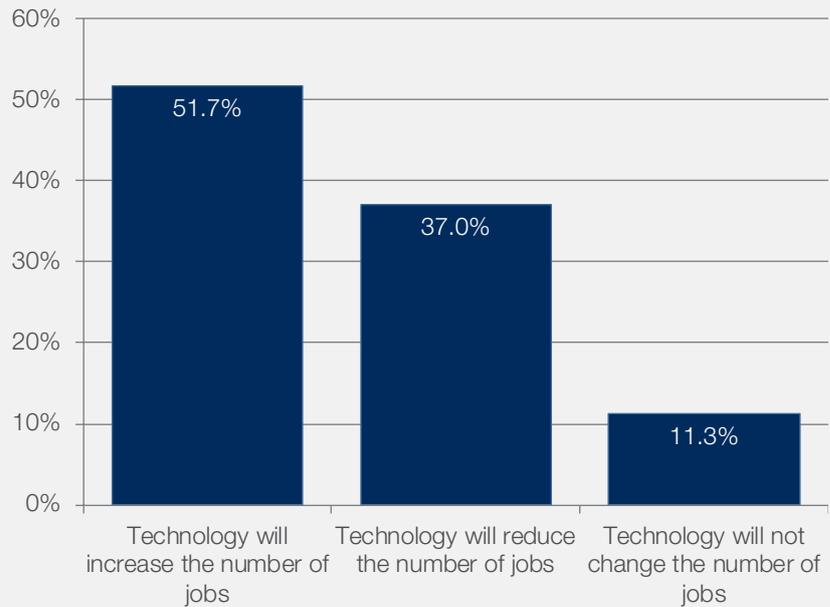


Fung Mei-Lin, Co-Founder and Organizer, People Centered Internet

These results suggest a preference for income stability, given the more unpredictable nature of employment in small organizations versus large ones. But there are nonetheless some countries that show a rising appetite for entrepreneurialism and the associated risk-taking it involves. In Thailand, for example, 26% of young people work for themselves today, but 36% said they would like to in the future. In Viet Nam, 19% work for themselves today, compared to 25% that say they want to be self-employed in the future.

Santitam Sathirathai, Group Chief Economist at SEA, said: “It is encouraging to see such strong entrepreneurial drive among ASEAN’s young population, with one-quarter of respondents wanting to start their own business. However, the findings also suggest that SMEs may struggle for talent in the future, with a smaller share of the region’s youth willing to work for SMEs. Looking ahead, it will be important to continue to enhance SME adoption of digital technologies to ensure young entrepreneurs and small businesses have the resources they need to succeed.”

Chart: % of ASEAN youths who think that technology will increase or reduce the number of jobs



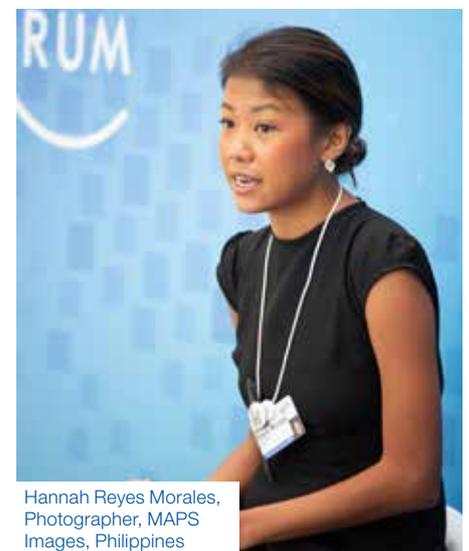
The survey also reveals that, across ASEAN, the youth spend an average of six hours and four minutes online every day, with 61% of that time spent on leisure, and 39% spent on work activities. Among the countries surveyed, the youth of Thailand spend

the most time online – an average of seven hours and six minutes. The youth of Viet Nam spend the least time online – an average of five hours and 10 minutes.

[View the full results of the youth survey here.](#)



Markus Lorenzini, President and Chief Executive Officer, Thailand, Myanmar, Lao PDR and Cambodia, Siemens



Hannah Reyes Morales, Photographer, MAPS Images, Philippines

Don't do normal stuff, don't ask for money: A tech CEO's surprising advice

Don't do normal stuff, don't ask for money, and look for magic. These were tech chief executive Le Hong Minh's words of advice to aspiring entrepreneurs at the World Economic Forum on ASEAN. "You just play a game and you can start a company," Minh told participants.

A passionate gamer, after visiting the World Cybergames in South Korea in 2002 Minh was inspired to set up his own café back home in Viet Nam and set about licensing his favourite game from China.

That idea has now turned into internet giant VNG, Viet Nam's first unicorn – a start-up with a valuation of over \$1 billion. "I often say to my friends, we are the very lucky generation," he said. He described becoming a teenager in the early 1990s, when the computer and internet first came to Viet Nam. "For those of us who grew up 20 years ago, used to dial-up modems, you go to an internet Forum and someone responds to you – that is magical."

Minh said that today's young people should think about the next big leap into the future. "You all have a smartphone in your pocket, you all can connect with hundreds or thousands of followers on networks, but all of that is normal today. Don't do the normal stuff because the future is happening with something that today you think is magical, is unimaginable."

Minh also warned against taking on debt from venture capital funds, friends or family; although most start-ups depend on access to capital to grow. "Don't go ask for money. Do something that people want to give you money (for)," he said. "If you go ask for money, it can be painful."

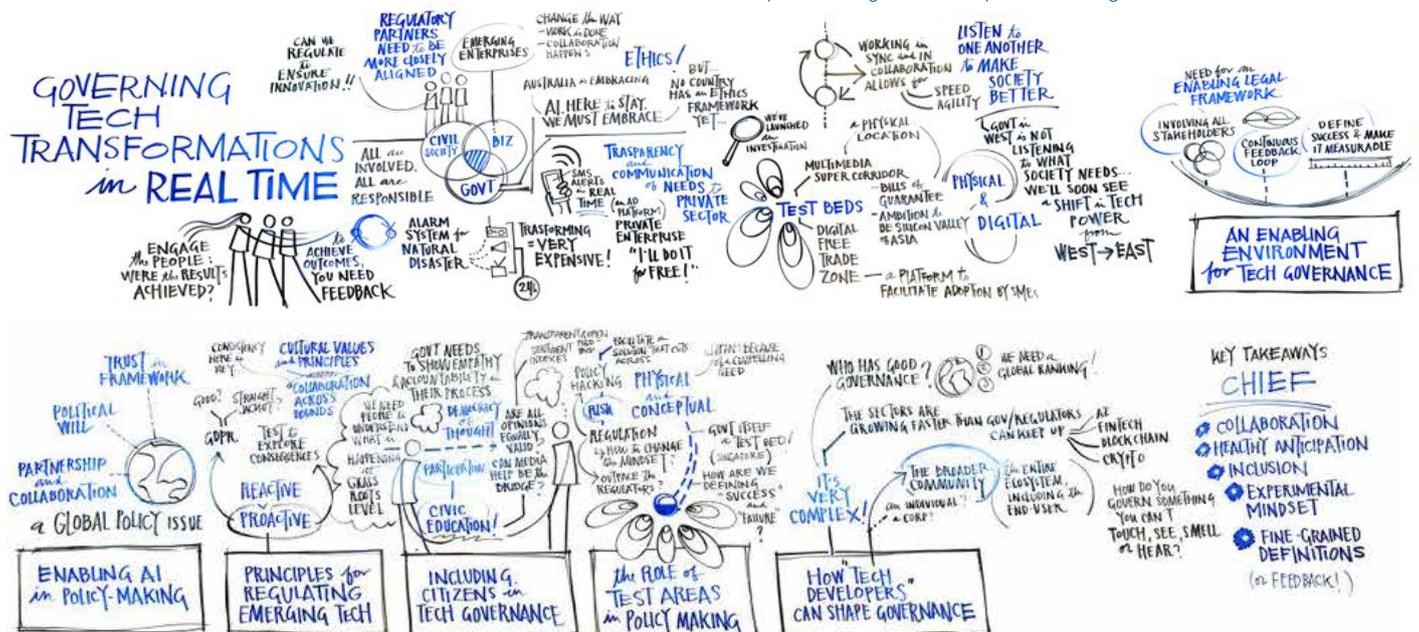
Read more and watch the session here:

<https://www.weforum.org/agenda/2018/09/le-hong-minh-ceo-dont-be-normal-startup-advice/>



Le Hong Minh, Chief Executive Officer, VNG Corporation

Ideas captured during the workshop on "Governing tech transformations in real-time"



Optimism about the ASEAN economic outlook

Government and business leaders at the meeting said they remain optimistic about the region's economic outlook despite threats of an escalation in the US-China trade war, rising interest rates and fear of emerging countries' currency contagion.

Nazir Razak, Chairman of CIMB Group Holdings, Malaysia, said he is concerned about the global economy at a time when US leadership has turned away from its traditional globalist stance and is reacting negatively to the rise of China. In contrast, ASEAN has transformed itself remarkably from "a zone of tensions and conflicts to one of peace and stability" and continues to enjoy tremendous economic growth.

Judy Hsu, Regional Chief Executive Officer, ASEAN and South Asia at Standard Chartered Bank, and Sri Mulyani Indrawati, Minister of Finance of Indonesia, pointed to lessons learned from earlier regional crises that have prepared businesses and governments to manage the current bout of emerging-market volatilities triggered by problems in Turkey and Argentina. "Clients become well versed in managing these risks; they have access to hedging tools. Clients with dollar loans have locked in their interest rates," Hsu observed.

Sound and prudent government policies, including investments in infrastructure and education, are reducing current account deficits and have supported the region's economic growth. In addition, ASEAN's youthful demographics – most of its more than 600 million population are young – and rapid access to technology are also fuelling domestic consumption and intraregional investment.

On the impact of a US-China trade war on ASEAN, Kevin Sneader, Global Managing Partner, McKinsey & Company, said that while there will be winners and losers, the outcome is unlikely to be dire. "This generalization is an example of 'don't let the facts stand in the way of a good headline'. The headline is trade war but the reality is there are lots of markets out there, and one of [the] opportunities is within ASEAN; intra-ASEAN trade is relatively modest and these markets can replace those that are hurt."

Rising interest rates should also be seen as an opportunity for policy-makers and businesses to make the necessary adjustments and to watch reckless spending. "This is a good market discipline in signalling to policy-makers as well as market players that you are not going to enjoy cheap money and you have to be very prudent," said Minister Indrawati. While she acknowledged that sentiment about certain weak emerging markets, such as Argentina, has spilled into ASEAN, the market's perceptions are based more on emotion than a rational understanding of the economic fundamentals in ASEAN, which remain strong.



Judy Hsu, Regional Chief Executive Officer, ASEAN and South Asia, Standard Chartered Bank

Veerathai Santiprabhob, Governor of the Bank of Thailand, was equally optimistic. "Since the global financial crisis, the world has experienced excess liquidity, artificial liquidity. We knew that normalization of monetary policy would come one day and we have prepared for it," he said. He pointed to Thailand's policies to build up foreign exchange reserves, to reduce the country's dependence on short-term finance, to restructure debts and to strengthen banking regulations.

But, he added, while the Federal Reserve in the US has been very clear in setting market expectations for interest rates, the situation has been somewhat complicated by US fiscal policy, which does not seem to be aligned with the country's monetary policy. The cutting of tax rates means that the expected course of interest rates could be somewhat different to what the Fed has predicted.



Veerathai Santiprabhob, Governor of the Bank of Thailand

E-commerce needs support to empower SMEs

The e-commerce market in ASEAN has enormous potential to empower SMEs, but only if critical issues are addressed, said panellists in a session on ASEAN's digital economy.

The value of online sales of new goods in ASEAN was worth \$11 billion in 2017 and will rise to \$88 billion by 2025, according to a joint study by Google, a US technology company, and Temasek, a Singapore-based investment group. This represents annual growth of more than 30%, but SMEs will need support if they are to grasp this opportunity.

In Viet Nam, Tran Tuan Anh, Minister of Industry and Trade, explained that while the foundations are in place, with communication infrastructure covering almost 90% of the country, internet users still make up only around 55% of Viet Nam's population. Despite this gap, the country's e-commerce sector is growing at a rate of 35% a year and is predicted to be worth \$10 billion by 2020. To make this ambitious forecast a reality, Minister Anh stressed the need to keep building out the country's infrastructure, and at the same time to educate SMEs on how to move their business online. While they now have access to a much wider base of consumers as a result of the internet, they also face the challenge of navigating digital platforms and baffling algorithms.

Toby Edwards, Chief Executive Officer of Shipa Freight, a digital logistics platform based in the UAE, said their in-house survey of 800 SMEs in eight countries revealed that 94% have difficulties when shipping their products abroad. Edwards said that he believes trust across borders and a simplification of the regulatory process is essential for the digital economy to reach its full potential. "Trade follows the path of least resistance," he said. "As a country, the easier you make it to do business the more business you will attract."

To achieve such streamlining, governments must shed their fear of sharing data and foster collaboration. "We believe, based on our research, that the issue of data is similar to the issue of trade. The lower the borders and barriers the better it will be for the economy," said Gerry Mattios, Expert Vice-President at Bain & Company, a consultancy. "It's almost impossible to have cross-border trade without data. It's like trying to fly without wings. You won't get very far."



The session on Digital Markets in ASEAN in the Arena Room



Tran Tuan Anh, Minister of Industry and Trade of Viet Nam

Factory Asia's next frontier

Panellists debating the future of manufacturing in ASEAN agreed that one of the critical responses to the technological disruptions of the Fourth Industrial Revolution would be to accelerate regional integration of production systems.

ASEAN countries are becoming the new powerhouses of factory Asia. Manufacturing accounts for more than 20% of the region's GDP, and ASEAN is the world's fifth-largest manufacturing hub. Yet new technologies are disrupting traditional business and economic models, and writing new rules for production.

As this happens, ASEAN finds itself at a crossroads. The region's manufacturing landscape could remain fragmented, with each member state advancing its own interests; or it could unify and create stronger economic integration in its manufacturing base, advancing collective capabilities for the future of production. By connecting stakeholders, streamlining supply chains and facilitating the cross-border flow of goods, people and data, ASEAN could build a collective response to the technological shifts in production that would see it gain significant strength and resilience.

Multilateral cooperation and interconnected companies not only strengthen economic resilience but also ensure that manufacturing remains a

source of innovation. The future of advanced manufacturing lies with capabilities such as 3D prototyping, smart packaging solutions, digital logistics and seamless data flows, while opportunities to innovate can be identified throughout the production value chain in design, supply, manufacturing, distribution and reuse.

The coming revolution in manufacturing will dramatically shift the business models of production. Yet with a collective approach to align production capabilities; collaboration platforms that minimize structural discrepancies while playing to the strengths of individual stakeholders; and proactive interventions inside companies to promote new technologies, this crisis is an opportunity to leapfrog to advanced production capabilities.

Every cog will play its part in the machinery of this future. Governments should invest in scalable innovation, and in education initiatives to retrain workers. Companies can streamline bureaucracies and educate stakeholders, while being agile enough to harness new technologies such as blockchain and e-commerce, as well as on the production line, for example printing essential parts on site rather than storing them in warehouses.



Helena Leurent, Head of the Future of Production, and Member of the Executive Committee, World Economic Forum; Airlangga Hartarto, Minister of Industry of Indonesia; Nikolai Dobberstein, Partner, A.T. Kearney, Malaysia; Claus Andresen, President and Managing Director, South-East Asia, SAP Asia; Nancy Cruickshank, Senior Vice-President, Digital Business Transformation, Carlsberg Group; and Somchai Harnhiran, Deputy Minister of Industry of Thailand



Digital tools and the illicit economy

Digital tools such as blockchain and open source data are helping governments and financial institutions track illicit money flows. But with only 1% of the illegal proceeds being confiscated, much remains to be done, said Julia Walker, Head of Market Development, Asia-Pacific at Thomson Reuters.

In a session on how the Fourth Industrial Revolution is improving transparency into the illicit economy, panellists noted that new technology is a double-edged sword – as well as helping the authorities, it allows criminals to develop new tools of their own, such as using cryptocurrencies to practice money laundering.

Walker noted that the rise of fintech companies is making the situation “tricky” for regulators as they seek to balance the need to encourage innovation against providing financial security and protection.

David Biller, Head of Investment Banking for ASEAN and Head of Industrials for Asia-Pacific at Citi, a US bank, said he feels that many of the fintech activities are “evolutionary” rather than “revolutionary” in nature and are aimed at addressing gaps in the market. The bigger question, he added, is what happens if some of the world’s biggest tech companies start offering something really different, arising from their access to vast amounts of data coupled with huge investments in AI.

“We don’t know what that might mean for us five years from now,” Biller warned, adding that regulators “will probably discover a little too late that the power we confer upon them through the vast amounts of data they are getting from various consumers” puts them out of reach of regulators.

Expanding financial inclusion

The picture of financial inclusion across ASEAN countries remains mixed, according to a presentation from the World Bank. While the share of adults with bank accounts in Singapore stands at 98%, in Cambodia it is just 22%.

However, the bank's data shows that the picture is improving, in many cases at tremendous speed. Back in 2011, only 4% of the population in Cambodia had a bank account. In Indonesia, 49% of adults have a bank account today compared to only 20% in 2011.

The rise of smartphone and internet penetration in particular is driving deeper financial inclusion. The World Bank's data shows that, in Indonesia, 11% of adults paid for a product or service on the internet in 2017. Back in 2011, the number was almost zero.

In discussing the results, Rahul Shinghal, Managing Director for South-East Asia at PayPal, said that the rise of the platform economy has shifted the narrative on financial inclusion from one of getting unbanked people to open a bank account to one of digital inclusion and financial literacy. "The digital economy," he added, "has allowed ordinary people to become entrepreneurs in a very short period of time."



Rahul Shinghal,
Managing Director,
South-East Asia, PayPal

Distributed-ledger technologies could enable \$1 trillion in trade

A new study released at the meeting by the World Economic Forum and Bain & Company finds that distributed ledger technologies (DLT) could play a major role in reducing the worldwide trade finance gap, enabling trade that otherwise could not take place. The impact of DLT – of which blockchain is the best known form – on trade finance would be largest in emerging markets and for SMEs.

The global trade finance gap currently stands at \$1.5 trillion, or 10% of merchandise trade volume, and is set to grow to \$2.4 trillion by 2025, the Asian Development Bank calculates. But the study shows that this gap could be reduced by \$1 trillion if DLT is used more broadly. The largest opportunities could come from smart contracts, and single digital records for customs clearance. They would help mitigate credit risk, lower fees and remove barriers to trade.

If implemented, the main beneficiaries would be SMEs and emerging markets, which suffer most from a lack of access to credit and have ample room to grow trade. "Implementing blockchain-based solutions can eventually do more for SMEs in emerging markets than removing tariffs or closing trade deals," said Wolfgang Lehmacher, Head of Supply Chain and Transport Industry at the World Economic Forum.

The trade financing issue, and the proposed DLT solution, are particularly important for Asian economies, including ASEAN, China and Hong Kong SAR, India and South Korea. These countries account for almost three-quarters of all import-export transactions, and for almost 7% (or \$105 billion) of the trade finance gap. But for countries to benefit, they will need a coordinated approach. "The benefits of adopting DLT in trade will affect everyone from banks to companies to governments to consumers," said Gerry Mattios, Expert Vice-President at Bain & Company, and a key contributor to the study. "But action has to be taken in a collaborative way and with an ecosystem approach in mind. Individual actions won't bring the expected results."

If the recommendations are implemented and the estimated impact materializes, it would be one of the first cases where blockchain is mostly beneficial to SMEs and emerging markets, as opposed to large banks or technology companies in developed markets.

Nadiem Makarim, Chief Executive Officer, GO-JEK



Nguyen Thien Nhan, Secretary, Ho Chi Minh City Committee, Communist Party of Viet Nam



Cho Nam-Joon, Founder and Chief Scientific Adviser, TSG Therapeutics, Singapore



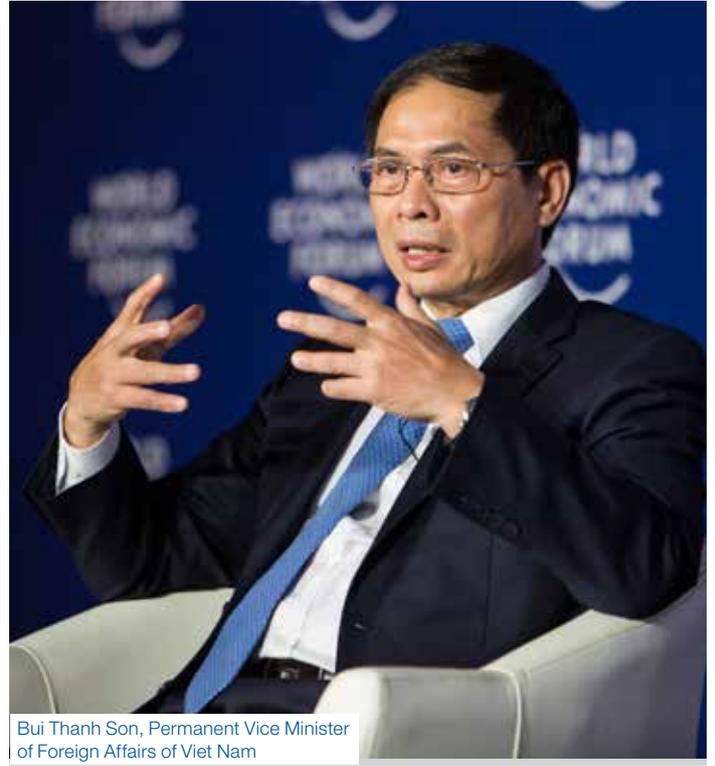
Rudiantara, Minister of ICT of Indonesia, speaking at the "Digital ASEAN" workshop



Jason Li Yat-Sen, Senate Fellow, University of Sydney



Luhut Pandjaitan, Coordinating Minister of Maritime Affairs of Indonesia



Bui Thanh Son, Permanent Vice Minister of Foreign Affairs of Viet Nam



Sun Chanthol, Senior Minister; Minister of Public Works and Transport of Cambodia



Ignatius Darell Leiking, Minister of International Trade and Industry of Malaysia



Shailendra Singh, Managing Director, Sequoia Capital

Social inclusion

The Fourth Industrial Revolution can both exacerbate and ameliorate inequality and social fragility. Participants explored how to shape the forces of change to drive access to better healthcare and education, new infrastructure, financial inclusion and more accountable governance

Public joins Open Forum discussion on ASEAN 4.0

The World Economic Forum, together with the Ministry of Science and Technology of Viet Nam, invited the public to join an Open Forum session on how start-ups can drive new opportunities in the Fourth Industrial Revolution. This special session was developed to give students, entrepreneurs, young professionals and the general public an opportunity to discuss what their future might look like as technological disruption shapes the ASEAN region.

See the session online: <http://wef.ch/asean18>

Since 2003, the Open Forum has brought together leaders from all walks of life: government officials, artists, civil society leaders, entrepreneurs and chief executive officers of multinational companies. The sessions are designed to engage a diverse global public and facilitate the sharing of a broad range of ideas, experiences and stories on pressing and controversial issues.



Syed Saddiq Abdul Rahman, Minister of Youth and Sports of Malaysia, speaking in the Open Forum



Rajan Anandan, Managing Director, South-East Asia and India, Google, speaking in the Open Forum

New approaches to reducing inequality

The ASEAN region has enjoyed peace, prosperity and relatively high rates of growth in the two decades since the Asian financial crisis. But it has also seen growing economic inequality, and continues to suffer persistent social inequalities, which have taken some of the lustre off an otherwise impressive period of improvement. In the ASEAN region, as elsewhere, economic inequality often correlates strongly with gender, and with the unequal conditions of majority and minority ethnic groups within member states.

For Stephen Groff, Vice-President for East Asia, South-East Asia and the Pacific at the Asian Development Bank, strong social protection policies are the foundation of any solution seeking to address inequality. For Groff, a solid social safety net goes beyond basic social welfare programmes and includes healthcare, consumer protection, state-funded reskilling programmes and labour policies. All of these and more need to be in place before countries can embrace the potentially transformative – but unavoidably disruptive – technologies of the Fourth Industrial Revolution.

Technology – and especially the rapid spread of the internet and mobile – offers tremendous opportunities to address inequality. Groff noted, for instance, that as the internet backbone has been built out, Filipina women who might otherwise have been dissuaded by family obligations from leaving their homes to work in larger cities like Manila can now remain in smaller urban areas where they're closer to family, and can still participate in the business process outsourcing sector boom.

Nadiem Makarim, Chief Executive Officer of GO-JEK, an Indonesia-based ride-hailing, logistics and digital payments company, champions market-based and technology-first solutions. He argues that digital technologies are bringing massive improvements in efficiency, and tapping excess labour capacity like never before. “Informal sector workers have been undervalued by society, and could be doing high-value economic activity,” Makarim said. He extolled the ability of digital

platforms like GO-JEK “to level the playing field, to build trust, and to de-layer entire economic verticals.”

And once smartphones reach a price point where they're essentially available to all – or when governments subsidize or provide them to all citizens – then market forces will do the work of addressing inequality, Makarim said.

There is one point on which everyone agrees: That a radical change in our approach to education – not just in ASEAN, but in all regions – is urgently needed. “There is no education system in the world – let alone here in Asia – that is fit for the future,” said Anne-Birgitte Albrechtsen, Chief Executive Officer of Plan International, a UK-based development group. On this point Makarim emphatically agreed: “You can't hack your way around it. You have to transform the educational system. Reforming it will not do.”



Muhamad Chatib Basri,
Chairman, Mandiri Institute,
Indonesia

Tackling the toxic norms that hold women back in Asia

By Anne-Birgitte Albrechtsen,
Chief Executive Officer,
Plan International

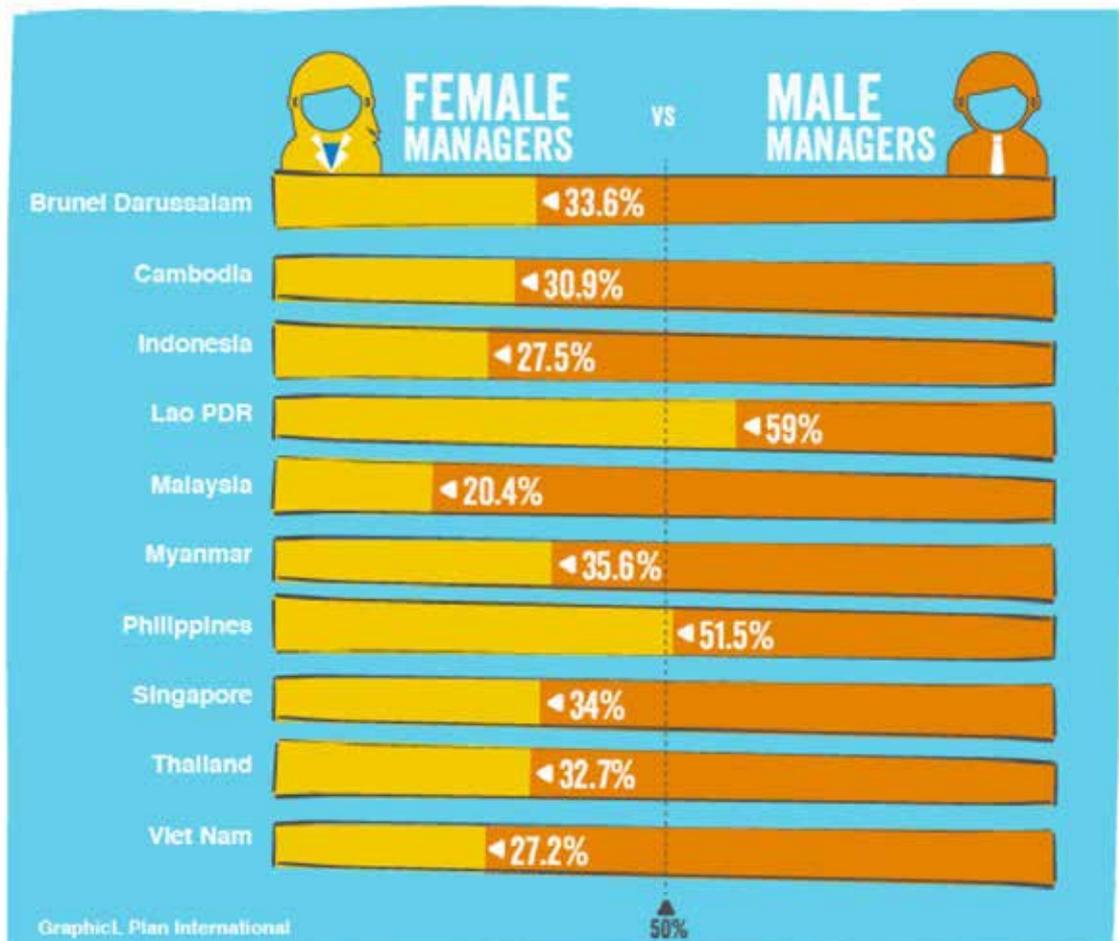
Asia is an economic success story. It has made dramatic strides in reducing poverty, increasing well-being and lifting future prospects for millions of people.

But there will always be more work to do to ensure that development gains, even the most impressive ones, are sustained, not just for this generation but for the next.

Right now, Asia's girls are missing out. In a region where girls often outperform boys at school, are more educated than ever before, and make up the

majority of students in tertiary education in some countries, their ability to shape the Fourth Industrial Revolution is still being restricted. This is because the people currently creating the systems of education, production and governance are predominantly men. Inevitably these "new" systems are likely to resemble the old and risk widening the gender gap further, hindering women and girls' access to, use of and ability to benefit from technology.

Worldwide, the proportion of women using the internet is 12% fewer than men, which increases to 32.9% in less developed countries. This gap is symbolic of a larger problem of the digital exclusion of women and girls, which we must address before it is too late.





Complex challenges

It is well recognized that Asia faces serious challenges as it looks to the future. The region will face big demographic shifts, including both ageing and youth bulges, alongside the disruptive forces of artificial intelligence and automation that are transforming the workforce and employment opportunities.

A new report by Solutions for Youth Employment highlights that this digital transformation is having a profound and specific impact on young people. It is altering the way they learn, their access to opportunities and their job security and could drive further inequality. In these fast-changing times, a failure to invest in the potential of girls will make these challenges yet harder to address.

The current gender gap in ICT starts in early youth, continues through the formative years and enters the workplace, where it hinders not just women but the future economic prospects of everyone. It is the product of harmful gender norms and stereotypes that result in a multitude of setbacks for girls, including unequal access to quality education and training, especially in science, technology, engineering and maths. It is also a result of our collective failure to keep girls and young women safe from threats like early marriage, exploitation – including online threats – and sexual violence.

In the growth and high-value sectors in Asia, such as technology and digital, women are woefully under-represented, and far less likely to reach senior positions. Just **one-third of all management positions are held by women in ASEAN**. Women in Asia are also expected to undertake 4.1 times the amount of unpaid labour and care work as men, according to the ILO. The global cost of unpaid care work undertaken by women is a staggering \$10 trillion.



Gerry A. Mattios, Expert Vice-President, Bain & Company



Andrea Della Mattea, President, Asia-Pacific, Microsoft Operations

Skilling up women to shape the Fourth Industrial Revolution

Accenture predicts we could reach gender equality in the workplace by 2040 in developed countries and by 2060 in developing countries if we up the pace at which women become digitally fluent. But the sad truth is that girls are five times less likely to consider a career in technology or ICT.

If Asia hopes to benefit from the big opportunity of digital equality, we need to do more than just talk about getting girls involved in the Fourth Industrial Revolution. We must change track to give girls the tools, skills and opportunities they need to succeed in and – critically – drive a digital future.

We need to start by empowering women and girls as creators and leaders of this future. We need to ensure they can create the technologies that help us avoid the replication of old gender stereotypes and inequalities in the digital space. By opening up more opportunities and more flexible ways of working, and building safe infrastructure, we can give girls the opportunity to learn the skills they need to become the next generation of leaders and entrepreneurs. But none of this will be possible until we tackle the specific gendered discriminations, exploitations and dangers they face every day.

A discussion table in the “Navigating the Risk Landscape in Asia” workshop



Disrupting the status quo

When jobs are scarce, how can it be right for people to believe that men have more of a right to a job than women? It is toxic norms like these that prevent girls taking part as equals in societies that need to be broken down. And we need to make sure the laws, policies and infrastructure are in place to ensure girls can access training, financial resources and jobs in safety, without fear of violence, harassment and discrimination. And we need to challenge the perception that technology is not for women or girls, and encourage more of them to study these subjects beyond secondary education.



Matthew Lobner, Head, International, Asia-Pacific; Head, Strategy and Planning, Asia-Pacific, HSBC

We must all play our part

Our role now is to step up and support young women's careers. By upskilling girls to become more digitally fluent, we can help them take their place as leaders in the growth sectors of the future. By acting as mentors, we can help give them a voice at the table and open up more spaces for women within our management structures.

I am calling on all leaders attending the World Economic Forum on ASEAN to join me and my fellow Co-Chairs in pledging to increase our commitment to and investment in equality for girls, to ensure their safety through learning, challenge harmful stereotypes and increase the representation of women in our respective spheres of influence.

Together, we can start to change the perceptions of what jobs and roles the young women of today should aspire to in tomorrow's world. We can also ensure that future prospects for this region stay bright and that Asia, and its young women, continue to lead and inspire around the world.



Nguyen Thi Kim Tien, Minister of Health of Viet Nam



Julia Abad, Executive Director Far Eastern University Public Policy Center, Philippines

Funding the endgame against malaria

The world is seeing unprecedented progress in the global effort to eliminate malaria. Decreasing case counts and a firm political commitment to end the disease mean that, for the first time in history, the elimination of malaria is within reach in Asia Pacific. However, challenges threaten this progress, including a looming funding gap that puts critical malaria-elimination activities at risk.

At the World Economic Forum on ASEAN, the Asia Pacific Leaders Malaria Alliance (APLMA) announced support for two new initiatives – Blended Finance for Impact, and M2030 – to accelerate the elimination of malaria and improve health outcomes in the Asia Pacific region.

Blended Finance for Impact is a partnership of the Asian Development Bank (ADB), the Global Fund to Fight AIDS, Tuberculosis and Malaria, and APLMA to enable and increase long-term integrated financing for health, including malaria. M2030 aims to bring together some of the most influential businesses in Asia to raise funds, engage consumers as agents of change and sustain political support for malaria elimination.

In line with the objectives of Blended Finance for Impact, the ADB announced a new Regional Health Fund to address the increasing demand from governments for new forms of health financing, particularly financial modalities that blend grants and loans to address the most pressing health challenges in Asia Pacific.

“We are looking to raise up to \$150 million in grant funding, which will be multiplied many times using other ADB resources,” said Stephen Groff, Vice-President for East Asia, South-East Asia and the Pacific at the Asian Development Bank. “This platform will help the transition from traditional grant funding for health, while strengthening public-private partnerships and country-led health financing, including financial flows from national to district level.”

Read the press release [here](#).



Stephen Groff, Vice-President, East Asia, South-East Asia and the Pacific, Asian Development Bank; and Benjamin Rolfe, Chief Executive Officer, Asia Pacific Leaders Malaria Alliance

Preparing for jobs of the future

In the US and other parts of the developed world, anxieties over technology and its impact on society run the gamut from undermining democratic processes to children who spend too much time on devices, and from exacerbated political divisions to existential threats posed by advanced machine intelligence. But in the ASEAN region, the focus tends instead to be on the opportunities that the technologies of the Fourth Industrial Revolution will bring. And where there is angst, it tends to be focused on one subject alone: jobs.

The amorphous nature of work, even in the very near future – its resistance to actionable forecasting or prediction – is the source of much of this anxiety. A glance at the World Economic Forum report on the future of jobs in the region bears this out. Of children entering primary school this year, 65% will likely do a job that doesn't even exist today. And most of the core skills that will be needed in those jobs are simply not valued today.

The range of challenges that these new technologies will inevitably bring are, for the most part, widely recognized by governments, business leaders, public intellectuals and leaders in civil society alike. Solutions have tended, not surprisingly, to focus on education: On how best to prepare young people for a future of work whose outlines remain so indistinct; on how to reskill or upskill the not-so-young in a time when working lives are growing ever longer; and on how to inculcate a culture of life-long learning.

Fortunately, the very technologies that are driving the need for this change will also facilitate these changes. The internet, especially now that it is accessible through smartphones, allows for anytime, anywhere learning. It enables data-driven, near-real-time

feedback on teaching efficacy, making all sorts of experimentation in pedagogy possible and significantly reducing the cost of delivering education. It also greatly enriches the types of educational content, making it much more accessible and appealing.

There is agreement within ASEAN and the Asia-Pacific more broadly on the need for regional responses, and yet the region itself is very diverse in terms of natural endowments, baseline educational and infrastructural levels, and demographic profiles. “Young” countries like Cambodia and Viet Nam sit alongside fast-ageing countries like Singapore. And levels of urbanization vary dramatically within ASEAN.

There are also deep-rooted cultural features that may prove to be obstacles to any revolution in education. Viet Nam's Confucian pedagogical traditions, emphasizing rote learning and unquestioning respect for teachers, may have been a contributing factor in Viet Nam's impressive educational accomplishments in the last three decades – but may prove a real hindrance as the country pushes more entrepreneurial, out-of-the-box thinking

and encourages critical thinking. Countries like Viet Nam, whose economies are benefitting at present from the shift in manufacturing of textiles, footwear, and consumer electronics from China to the ASEAN region, will have to get the timing just right – continuing to derive benefits from this shift before nimbly pivoting to prepare for the next key shift.

Education should not be the sole focus, either. The new jobs of the Fourth Industrial Revolution won't materialize unless there is demand for them, and that demand depends on enlightened policy that will encourage tech entrepreneurship, adequate investment in infrastructure, and far-sighted investment in R&D.

The optimism of ASEAN's young people is certainly not unwarranted. The past several decades have seen a tight correlation between technological progress and economic betterment. But only sober and clear-eyed management of the very real challenges will ensure that this lock-step march might continue into what remains a very uncertain future.



Francesca Chia, Chief Executive Officer and Co-Founder, GoGet, Malaysia



Ian Lee, Regional Head, Asia-Pacific, Adecco

Tackling malnutrition through tech

Malnutrition packs a powerful, visual punch. While the horrifying images of gaunt, skeletal children with distended bellies are becoming a relic of an age now past, observers can still all too easily see the stark disparity in height between wealthy urban kids and their poor rural counterparts. From a young age, the well-fed tower over the undernourished. And stunting, as the phenomenon is known, isn't just physical: it impacts mental development too, as it is in the critical first 1,000 days, from pregnancy to the second birthday, that 78% of brain development takes place.

In Indonesia, some 1.5 million children are stunted every year – and tragically, the impact carries on across two generations. Often, stunting results not simply from a lack of food, but from a lack of knowledge among parents. But educating people about proper nutrition across a nation of over 250 million spread over some 17,000 islands is a daunting task. Sending teachers to rural schools to lecture to children one classroom at a time is woefully inefficient and impractical.

Fortunately, Axton Salim, Director of Indonesia's Indofood, met Muhammad Imam Usman, Co-Founder of the Indonesian mobile education start-up Ruanguru at the World Economic Forum Annual Meeting in Davos five years ago. The two immediately recognized the possibility of harnessing the Ruanguru platform. After all, it is Indonesia's leading mobile learning app, and boasts 9.5 million students and 400,000 teachers using it.

Working with the University of Indonesia to develop the content, they launched four year ago and have now reached millions of rural students. The content is delivered in "bite-size" chunks of no longer than 10 minutes, with engaging videos featuring animation and motion graphics. It's an approach they call "micro-learning", and while it may appear to be a concession to the short attention spans of this digitally distracted age, it works well. They are able to assess children using quizzes, providing flashcards about nutrition for easy studying and a platform where students can upload and share notes. They have since signed on numerous celebrities popular with young people as ambassadors for the programme.

It's an inspiring collaboration, and a reminder that digital technologies really can be put to effective use in tackling persistent and decidedly analogue problems.



Muhamad Iman Usman, Co-Founder, Ruanguru



Axton Salim, Director and Member of the Board, Indofood



Lim Jock Hoi, Secretary General of the ASEAN Secretariat; Nazir Razak, Chairman, CIMB Group, Malaysia; Lutfey Siddiqi, Visiting Professor-in-Practice at the London School of Economics and Political Science



Chu Ngoc Anh, Minister of Science and Technology of Viet Nam

Workplace 4.0

How will we work in years to come? The only permanent feature in the nature of work will be profound and rapid change. Change in the skills that employers require; in the areas of work where humans can add meaningful value as AI and robotics improve; in the role that governments will have to play in absorbing the shock that all this change will deliver; and in the environments in which we will work, in the hours that we'll spend, and even in the part that work itself plays in our sense of identity.

It is a frightening prospect for workers and employers alike, and as the reality sinks in, it will only become more frightening. "The true impact of Work 4.0 is not that you will lose your job," said Michaelia Cash, Minister for Small and Family Business, Skills and Vocational Education of Australia. "It means that your job will change." That may be cold comfort to the many millions of workers in the ASEAN region and beyond who face tremendous uncertainty.

There is at present no consensus on what the best practices are for governments, for employers and their HR departments, for educational institutions, or for individuals entering the labour market. There is, however, broad agreement on several points.

First, there is an urgent need for more collaboration: between government and industry, as well as between industry and educational institutions. Second, in this transitional period, a lot of money will be spent, a lot of ideas will be tried, and while there may be some successes there will be inevitable failures. "Allow your HR departments to experiment and to make mistakes," said Jamaludin Ibrahim, Managing Director, President and Group Chief Executive Officer of Axiata Group, a Malaysia-based telecoms group. "They're designing jobs that have never existed before."

And third, nothing short of a mindset shift is required, from the individual level to the team, from the company to the industry sector, and on up to the mindset of government. Younger workers, new start-ups, industries that didn't even exist just a few years ago – for these, to whom this state of flux is already a given, the mindset shift will be much easier.

But pain is inevitable, especially for older workers, older companies and older industries who've grown accustomed to the system of work that has long prevailed in the industrialized world. For these, the public sector will need to step up, and ease what will be an unavoidably difficult transition.



Jamaludin Ibrahim,
Managing Director,
President and Group Chief
Executive Officer, Axiata
Group



Barbara Navarro, Director,
Public Policy, Policy
Strategy and Operations,
Asia-Pacific, Google

Steering ASEAN towards safer roads

In Asia-Pacific, one person dies in a traffic accident every 40 seconds. That works out to about 2,000 a day – clearly, an unacceptable death toll. A dangerous mix of overloaded trucks, passenger cars and motorcycles – with riders who often disregard helmet laws – contributes to this toll. So too does the condition of roads, especially in some of the less-developed countries in the region. The human cost aside, traffic accidents reduce ASEAN GDP by 3% – or \$81 billion – a year.

Neuroelectrical technologies may provide some clues as to what’s behind so many traffic accidents and fatalities. Tan Le, Chief Executive Officer of EMOTIV, described how her company’s device monitors brain activity and can measure the attention that a driver is paying to driving. Based on research conducted on drivers in Western Australia, which suffers high rates of traffic accidents, she concluded that distraction is a primary cause of accidents, and accounts for 46% of traffic fatalities in that region – more than either speeding or drunk driving.

Ms Tan quantified the cognitive impact of some common activities of drivers. Checking social media, for instance, diminishes attention by 43%. Making a phone call appears to suck up 27% of attention, while texting consumes 22%. Even making a hands-free call reduces the attention of drivers by 14%. “We think we’re good at multitasking, but multitasking is not actually possible. You’re just switching attention, and doing it quickly.” And attention switching, she added, “is a very good indication of distraction.”



Tan Le, Chief Executive Officer, EMOTIV



Johan de Villiers, Managing Director, South-East Asia, ABB



The Cultural Soiree

ASEAN-led healthcare systems

In the next 10 years, the Asia-Pacific region will make up 45% of total global healthcare spending, amounting to \$2.4 trillion. By 2030, it is expected to have 460 million people aged 65 and above and 265 million with diabetes. ASEAN countries are facing emerging diseases, such as avian influenza, re-emerging diseases, such as TB, malaria and HIV, and non-communicable diseases with high mortality rates, such as hypertension and cancer. The region is facing more demands from the population but resources remain limited. In the meantime, healthcare costs are going up for consumers. Overconsumption of unhealthy food, alcohol and tobacco is also rife across the region, teamed with the overprescription of medication and a lack of cost management in health institutions.

Despite these challenges, technology is being used to great effect. Caroline Clarke, Chief Executive Officer of ASEAN Pacific for Royal Phillips, a Dutch technology company, gave some examples. Midwives with mobile ultrasound scanners have been sent to rural villages in Indonesia, after which the images are uploaded to the cloud and assessed by experts in Jakarta. AI has been used to remotely monitor the vital signs of hospital patients, reducing stress on doctors and bringing cardiac arrest down by 50%. Emergency room regulars have been trained to use at-home testing kits to assess whether or not to seek help. "It's not volume-based care, such as more hospital beds, but value-based care," said Clarke.

Levana Sani, Chief Executive Officer at Nalagenetics, an Indonesia-based healthcare start-up, reported that her company is using pharmacogenomics to combat trial and error in prescribing. The system works by scanning patients' DNA to determine which drugs will and won't work with their particular ailment.

Nguyen Thi Kim Tien, Minister of Health of Viet Nam, also explained how her country has ambitious plans to establish three smart systems: smart hospitals, smart healthcare education, and smart government and management. She admitted that the Vietnamese tend to think more about the cure rather than prevention, only coming to seek treatment in the later stages of illness. Educating consumers about how to live healthy lives and prevent disease is essential to lessening the burden on healthcare systems.

Collaboration between the population, the government and the private sector is key to solving ASEAN's health challenges. "Healthcare and education are the two big social equalizers," said Alexis Serlin, Head of the Asia Cluster for Novartis Asia Pacific Pharmaceuticals. ASEAN is so unique in its healthcare situation that it cannot just copy the developed world. "We need a digital roadmap to enable tech and data to create an efficient low-cost model of care," said Clarke.



Caroline Clarke, Chief Executive Officer, ASEAN Pacific, Royal Phillips; and Alexis Serlin, Head, Asia Cluster, Novartis Asia Pacific Pharmaceuticals



Levana Sani, Chief Executive Officer, Nalagenetics



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Frederick Burke, Managing Partner, Baker & McKenzie (Vietnam)



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Warren Jude Fernandez, Editor-in-Chief, Straits Times



Troels Oerting Jorgensen, Head of the Centre for Cybersecurity, World Economic Forum; and Shue-Jane Thompson, Vice-President and Partner, Cybersecurity and Biometrics, IBM Corporation

Acknowledgements

The World Economic Forum would like to thank the following companies for their valuable support of the World Economic Forum on ASEAN.

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A.T. Kearney
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Egon Zehnder
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PAG
PETRONAS (Petroliam Nasional)
Prudential
QI Group
RGE
Sanofi
Sea
Sequoia Capital
Shire International
Sinar Mas Agribusiness & Food
SM Investments Corporation
Sumitomo Corporation
Telenor Group
Unison Capital
WanaArtha Life
Wilmar International

Associates

CIMB Group Holdings
PTT

Service Providers

Audi
T&A Ogilvy Joint Venture Company Ltd
(Vietnam)

Host Broadcaster

Vietnam Television (VTV)

In addition, the World Economic Forum would like to thank The Straits Times for their valued assistance on the ASEAN start-up programme.

Digital Update



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The event page of the World Economic Forum on ASEAN provides more information from the meeting, including photographs, press releases, social media and webcasts of selected sessions.



This report is also available to download:
http://www3.weforum.org/docs/WEF_ASEAN18_Report.pdf

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The report was written by **Kaiser Kuo**, **Kate O'Donnell Lamb** and **Catherine Ong**, with **Janet Hill**. The Forum would like to thank them as well as official writers **Alec Ash** and **Crystal Wilde** for their work at the World Economic Forum on ASEAN.

Editing and Production

Janet Hill, Head of Editing
Floris Landi, Lead, Graphic Designer
Jordynn McKnight, Graphic Designer
Michela Dorbolò, Graphic Designer

Photographers

Fon Sikarin Thanachaiary
Fah Chanettee Thanachaiary





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