With the impact of global warming becoming graver over the past few years, extreme weather conditions have been observed with intensive frequency, causing an array of natural disasters including devastating storms, floods, hurricanes, droughts, heat waves and even earthquakes that have posed a threat to the survival of not only mankind but also the world’s business and trade mechanism. Small and medium enterprises, in particular, are the most vital since they serve as an important role in the global supply chain. When the capacities and capabilities of SMEs are damaged, the whole supply chain as well as relevant economies inevitably suffer great economic losses. Therefore, increasing SMEs' business continuity planning (BCP) capability has become a new global trend that aims to help SMEs tackle risks posed by natural disasters.

In this issue of the APEC SME Monitor, the capabilities of SMEs to operate sustainably and manage risks appropriately continue to be the key issues. SMEs' ability in this regard can help equip them with the right tools to rise above various risks in the fast-changing business environment to ultimately maintain not only company competitiveness but also supply chain stability. Having taken note of the prevalence of the Internet which has given rise to the digital economy (one of major drivers for current global economic growth and development) and the advent of big data technologies which have created further opportunities for businesses, the promotion of BCP will focus on building SMEs digital resilience equipping them with the ability to protect their digital assets and recover quickly from cyber threats.

In the "APEC News" section, it is reported that Chinese Taipei has joined hands with the Department of Commerce of the Unites States in organizing the APEC Accelerator Network Forum (AAN Forum) for Early-Stage Investment during June 8-10 when the 40th SME Working Group Meeting and other related events were hosted in Atlanta, USA. Marking the beginning of the 2015 Global Challenge for startups in October, the AAN Forum aimed to select eligible teams to participate in the final challenge in Taipei in October. Another report focuses on the APEC Symposium and Train-the-Trainer Workshop on Promoting SME Business Continuity Plans hosted in Howard Taipei on July 27 and 28. The main objective of the event is to promote business continuity plans among APEC SMEs as a way to help enhance their capabilities for disaster preparedness and recovery.

Johnny Yeh
Executive Director
APEC SME Crisis Management Center
'Planning for threats with the lowest probability is needed as these scenarios are becoming a reality'. President Eisenhower said that over 50 years ago. He was faced with nuclear war. Japan was faced with the 2011 Tsunami. The next year Thailand had to deal with a once in a hundred years flood' and in 2013; the most powerful storm ever recorded devastated parts of the Philippines.

These incidents also illustrate the risks in the global supply chain or as it is now often described, the Global Value Chain (GVC). Today businesses large and small are faced with a myriad of threats to their people, facilities, data, equipment, knowledge and intellectual property which in turn affects their business relationships with customers/suppliers and ability to rapidly return to business as usual when one of these threats materialize. As such these need to be identified and a risk mitigation strategy put in place, usually referred to as 'Business Continuity Management' (BCM) formerly referred to as Disaster Recovery or DR. Broadly these risks may be grouped and classified as the following;

**Man Made:** such as terrorism, sabotage, theft, riot, strike, plant failure, fire, water leak.

**Natural:** such as Typhoon/storm/tornado/hail/lightning strike/earthquake/volcano/Tsunami/Pandemic.

**External Business related:** such as power failure/water supply failure/strike/key employee leaving/human error/mass transport outage (so workers can't get to work) etc.

**IT and Data failures:** including sabotage/theft, virus and malware, denial of access, human error software and application corruption/failure/connectivity failure.

**'Black Swan' events**: Rare events as those that are unexpected; produce an extreme impact; and, although technically outliers, demand explanations and responses. Extreme weather events may be included here.

1 The Black Swan: The Impact of the Highly Improbable, Nassim Nicholas Taleb.
**Legislative risk**: which includes new laws or more rigid enforcement of existing laws covering such areas as environmental/pollution, land zoning, labour, specific industry laws, export laws, financing laws (for exports) Other laws that affect your customers ability to do business with you such as Unfair Competition Laws or anti-corruption laws (UCA or FCPA in the US for example). With respect to UCA/FCPA for example, this is a known risk and non-compliance is a reputational risk as well as a financial one.

Larger enterprises (500+ employees; $100 -$250m turnover) clearly have greater resources than smaller enterprises, and although sound resilience principles also apply to them, they have greater import to smaller enterprises by definition. They generally adopt the PESTEL approach; the political, economic, social, technological, environmental and legal lenses through which the risk analysis is conducted and resilience plans framed and then adopted. Standards for security and resilience are offered by the ISO and other organisations.

With respect however to micro and small enterprises (MSME/SME) that is employing between 5-50 staff with turnover less than $1m, their needs as well as resources available are quite different. Equally the effect of any disruption in business is usually greater as they have a smaller financial cushion to absorb losses and costs in the short term.

**Digital Resilience**

A key part of risk planning for any business, large or small is to address the ability to 'bounce back' in the face of adversity which is generally referred to as 'resilience'. Resilience, as a noun may be defined in a business context as 'The ability to recover from or adjust to misfortune or change by having the capacity to withstand stress and catastrophe'. Moving on from traditional DR that dated acronym may now be redefined as 'Digital Resilience' (or new DR). Thus the 'new DR' may be narrowed down for SMEs, simply as 'The ability to survive in digital adversity'.

As such it is the final component of a traditional BCM plan - to get back to business as usual in the shortest time possible. For larger enterprises there are comprehensive frameworks available but here we are addressing specifically the Information Technology (IT) used by SME's that may be assumed not to have technical expertise a dedicated IT department.

Virtually all SMEs now use some form of IT in their business, from a PC for office administration and spreadsheets, to email. In the past 5 years this has rapidly grown to encompass innovations such as IP phones, online banking, online sales and trading sites and social media.

However they are increasingly at risk from business disruption from IT failure due to internal or external actions either by accident, natural or man-made intervention. Whilst most natural disasters and accidents by definition are hard to predict, the dramatic increase in cyberattacks and spread of malware in recent years that go across all platforms and businesses regardless of size, can be. This is a shared responsibility between all parties in the IT ecosystem.

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As such an approach based on 'assumed breach' is the most constructive way to look at this. Rather like business travel nowadays where delays and traffic jams are inevitable but general unpredictable, the ability to deal with these disruptions as they appear should be part of any business plan, big or small.

Advance preparation based a few simple principles and will enable MSME/ SMEs be ready for this so they may return their business to normal in the shortest time possible. This may minimise financial losses by being able to deliver to their customers, thus restoring cash flow as an interruption to their cash flow can cripple a small business very quickly.

From the above, the following Principles have been identified;

Principle #1 First Reduce Technical Vulnerability: Each element of a System should run current, patched versions to reduce exposure to compromise.

Principle #2 Element-Level Protection: Each element of a System should be protected both from external compromise and from other compromised elements of the same System.

Principle #3 Element-Level Detection: Mechanisms to detect compromise should be in place for each element of the System.

Principle #4 Localised Containment: Compromises should be contained as close as possible to the initial compromised element.

Principle #5 Automated Recovery: It should be possible to reliably recover a compromised system to a known-good state with a high degree of automation.

Principle #6 Resilience Rating of Systems: Every system should be classified with a required level of resilience based on the criticality of services provided by a System.

Principle #7 Isolation of Untrusted Systems: A System in which any element is compromised Should be considered untrusted and isolated from other systems.

Principle #8 Dynamic Adaptation: Networks of Systems should be capable of dynamic adaptation in response to a threat or disruption so as to minimise impact and maintain continuity of operation.

With respect to SMEs, these principles may be simplified further as follows;

1. **Identity**- People, systems and machines –who and what is running or accessing.

2. **Platform**- The infrastructure; hardware/operating system and Cloud services.

3. **Process**- The applications and programs used.

4. **Network**- the communication link and its gateways and firewalls.

5. **Data**- Storage on and off premise, Cloud outsourcing for primary and backup.

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4 From Mr. James Kavanagh, Chief Security Advisor, Microsoft Australia.
Identity: Access control and who has what passwords are basic security controls, but for accessing banks online for example this has to be tightly controlled as financial fraud is the main insider threat facing SME’s. Using a bank that demand two factor authentication with the second using information only known to the authorised person, greatly reduces this risk.

Platform: No operating system is safe from compromise today; the key is to ensure that the software is authentic and updated by the manufactures on demand. This is generally an automated process for genuine software.

Process: The advent of widely available Cloud computing is a game changing innovation for the SME to embrace Digital Resilience as backups may be set whenever a PC or servers is activated. End to end encryption of data is now the standard and when this is combined with adherence to international standards such as certification under the ISO 27000 series (including ISO 27018 in particular on privacy of personal data), robust security is assured. For an SME there are now multiple services available from major vendors that have the experience a depth of expertise to ensure that they may work seamlessly in the background; backing up files, data, customer information, accounting work in progress including design and development so that in the event of an external event or even a local server or PC failure will ensue that data loss is minimised. Offshore data storage ensures local events do not interrupt this process, be they natural in the case of the examples above, or manmade. Once the immediate cause of the loss is dealt with, that recovery may be made and the business rebuilt.

Network: Tier one telecoms carriers for land line connectivity combined with a secondary cellular carrier (plus on demand prepaid service) will provide the required service levels for all but the most severe interruption which would normally mean a natural disaster. If data is backed up in the Cloud then the minimum amount of data may be lost due to a carrier outage.

Data: Off premise data storage is crucial for digital resilience. As was shown in Japan, data backed up locally may also be wiped out. The Cloud solutions available mitigate this risk.

To sum up, it has never been cheaper nor more convenient to enable Digital Resilience for SMEs by the adoption of Cloud services for the 'new DR . There is considerable choice in Cloud Service Providers (CSP’s) that have years of experience in traditional BCM for large enterprises, employing hundreds of experts in areas such as security and privacy that is now available to SME’s at a price point that virtually all can afford.

This will further enable them to participate in the GVC and grow their business by enabling trust in their ability to withstand any disruption and assuring their customers of a rapid return to business as usual. SME
Reflecting on the 2015 Nepal Earthquake

Shock of the April 2015 Nepal earthquake

A major earthquake with a magnitude of 7.9 struck the Himalayan nation of Nepal on April 25 this year, followed by a series of aftershocks, many of which were strong tremors with a magnitude of at least 7. The series of quakes even caused deaths and injuries in neighboring countries such as Tibet and India. As of the time of writing, the number of casualties has already exceeded 7000. This brings back memories of some of the most devastating quakes that the world has ever witnessed, including the 2011 Tohoku earthquake and tsunami (Japan), the 2008 Sichuan earthquake (China), the 2004 Indian Ocean earthquake and tsunami (Indonesia), and the 1999 Jiji earthquake (Chinese Taipei).

Risks of natural disasters faced by Chinese Taipei

The two most common natural disasters in Chinese Taipei are earthquakes and typhoons. These two natural disasters are worrying to many as the severity of typhoons only appears to be increasing as a result of recent climate change and earthquakes remain difficult to predict with current technologies. Statistics show that in the past 110 years, there have been three earthquakes with a recorded death toll of over 1,000. These historical tremors are the 1906 Chiayi earthquake, 1935 Guandao Mountain earthquake and 1999 Jiji earthquake. Management of the risks of earthquakes and typhoons to reduce their impact requires the joint effort of the government, industry and society.

Housing structure safety

The priority in earthquake damage control is structure safety. Following the collapse of approximately 50,000 houses in the 1999 Jiji earthquake in Chinese Taipei, the government revised the national building code to stipulate stricter anti-seismic standards for structures and supporting measures. The National Center for Research on Earthquake Engineering was also commissioned to evaluate the resistance of old school buildings to earthquakes. My personal observation is that while most companies are willing to invest heavily in the latest machine models and process technologies to gain leadership in the global marketplace, factory earthquake resistance is often neglected, complying only with the minimum requirement of domestic regulations. According to the research of structural design consultancy company Degenkolb, structure cost accounts for approximately 15% of the total cost of a regular office building and only 1% of a semiconductor factory. Therefore, in comparison to the potential damage caused by an earthquake, spending less than 1% of the total cost to increase the resistance of structures to earthquakes is highly cost-efficient.
Non-structure safety

Earthquake claims records from insurance companies show that in industries using precision processes, the building's non-structural losses is often higher than structural losses. There have been incidents in TFT-LCD and semiconductor industries where earthquakes caused no damage to factory structures but a significant loss in machines, to such an extent that the factories were forced to shut down. There have also been cases of earthquakes breaking pipes that carried flammable gases and liquids and leading to fire accidents. In fact, while Chinese Taipei's anti-seismic regulations stipulate that machine placement in factories must comply with seismic standards and be certified, in practice most machines were placed in factories without so much as a thought for earthquake scenarios. Hence, companies are suggested to design effective ways to properly secure machines in place by following international and/or local regulations and taking into account amplified earthquake intensities on higher floors.

Business Continuity Planning

In addition to disaster prevention, companies should also have post-disaster rebuilding plans, which include contingency planning, crisis management and business continuity planning. Companies should analyze its activities, find key businesses and priorities, assess potential damage and devise corresponding recovery strategies. There are already international standards for reference to devise such plans. Companies can refer to BS25999, ISO22301, and research results by the UK-based Business Continuity Institute (BCI) and APEC SME Crisis Management Center (SCMC).

Financial Planning

Financial management is a part of earthquake risk management. It is necessary to include appropriate insurance plans, such as fire insurance, natural disaster insurance, business interruption insurance, employee insurance, and liability insurance. There were cases where companies were only insured for fire hazards but no earthquakes; thus when fire broke out at the companies as a result of earthquakes, disputes rose over the cause of fire. Other problems include companies trying to save premium by increasing the deductible or reducing the limit on natural disasters but ending up with a less-than-expected claim amount. To avoid such complications, companies should consult insurance professionals, evaluate risks scientifically, understand the risk appetite of the company and make appropriate arrangement accordingly.

Conclusion

It is true that the core mission of most companies is to seek profit, not to manage risk, prevent disaster or provide disaster relief; however, in the event of a disaster, all the hard work that a company has done would be wiped out without mercy. Research by MIT Professor Yossi Sheffi shows that the supply chain, while a place is where companies find competitive advantages and make a profit, is also where potential crises lie. Companies should strengthen their crisis management abilities to create a resilient business. I suggest companies to include risk management into their operation performance review and collaborate with external experts to conduct
preventative and improvement projects using best practices in accordance with international standards. Companies are recommended to conduct risk assessments, find their key businesses and priority activities, review relevant building structures and how anti-seismic their machines are, and develop an improvement plan by putting together the company’s operational strategies, risk tolerance and a cost-effectiveness analysis. Finally, it is always vital for companies to have a business continuity plan, practice the drills regularly and increase the reliability of the plan so as to best prepare companies for unknown risks.
Disaster Resilience and Response with Information and Communication Technologies

1. Disaster Resilience

Back in 2011 "UN-SPIDER International expert meeting: Crowdsourcing mapping for preparedness and emergency response", it’s the first time for GeoThings, an ICT team that develop web and app for humanitarian activities in response to disaster, to actually see the needs of crowdsourcing for disaster response. The request from Samoa was clearly addressed on crowdsourcing tool and location information with SMS technology for disaster prevention and response. Hence, GeoThings is able to develop the mobile application that leverage the GPS in the most of smart phones and report to Ushahidi, an open sourced crowdsourcing platform. With this ICT tool, the disaster responders and government agencies are able to get timely information right after the disaster happened. Not like before, the 911 or emergency hot lines are always congested during disaster. ICT provides an alternative infrastructure that does not need to be first-come-first-serve response, but allow the responders to collect information and coordinate the resource based on the reports.

2. Location-tagged SMS for Incident Report

SMS is one of the most common feature supported by mobile phone. With the enhanced ability on smart phone, GPS and some location positioning mechanisms are applied to get the accurate location of user. We realized that it would be great to encode location information to SMS for more application scenarios. For emergency response, usually people will pick up the phone and make a call to the local/government emergency responders. This can be enhanced with location-tagged SMS for receiver to know better about who is reporting what, where.
Since Haiti earthquake, more and more information and communication technologies were applied to disaster response. Because Open GeoSMS concept improves the context of SMS, some of the ICT tools are developed based on this idea for emergency and disaster response. It started from the event report and task dispatching on mobile phone by the community of Ushahidi and Sahana. Both Ushahidi and Sahana are open source platform that designed for the information and resource coordination in disaster response. Ushahidi is one of the famous crowdsourcing platform for various purposes, also very essential in emergency response. Not only for Haiti earthquake in 2010, but also for the Nepal earthquake in 2015 (QuakeMap.org). The advantages of Ushahidi is straight-forward, easy to deploy, and with good community support. Sahana is also an open source platform that carried by Sahana foundation that focused on resource coordination. In Haiti, Sahana was developed for the medical resource coordination. In response to Sandy Hurricane, Sahana was adopted by New York Emergency Management Office for the resource request and management. To combine the location-tagged SMS (Open GeoSMS) and crowdsourcing platform, information and communication technologies can be a handy tool for disaster and emergency response.
3. Crowdsourcing with Social Media

Social media such as Facebook and Twitter are greatly used and people post what they saw, how they felt, and where were they on it. As a result, social media has become a very efficient platform to collect disaster information. The major issue is "can you trust those information?"

There are various kind of information sources for disaster situation and response. The announcement from government and the authorities can be highly trusted. It might be slow and not yet reflect the latest situation. However, it usually announced under a standard operating procedure so the information can be trusted in most of the cases. There will be some announcement or call to action from either local or international NGOs, since most of those organizations are experienced in disaster response, so we can also take those as trusted information as well. Then the information on social media that posted by the public. People installed the mobile applications for social network and post what they saw with their opinion. This is a very real time mechanism to know what is happening in disaster affected area while Internet is still working. As a result, Qatar Computation and Research Institute (QCRI) started a project called MicroMappers, to categorize the information from social media. This project is adopted by UN OCHA and supported by Stand By Task Force (SBTF) and GeoThings. MicroMappers invites digital volunteers who can contribute their time on web or app to help on the categorization with a single click for the text or picture from Twitter. Those tweets are with location information and filtered with the key words that related to the local disaster the most. After the quick categorization by the "digital volunteer", that means they are not personally been there for the response but via the digital technologies to contribute, the local government and the NGOs are able to know the locality of the categorized events on social media.

This Clickers app can further to be leveraged with satellite or UAV imagery for the assess management after disaster. FS2 Clicker by National Space Organization (NSPO) and GeoThings from Chinese Taipei deliver the combination of satellite imagery and crowdsourcing. Not only dedicated for disaster response, NSPO provided the Formosat-II satellite imagery that allows the NGOs to raise the environmental subjects and response by the volunteers. This project further leveraged the strength of ICT and the crowdsourcing on mobile platform.
After the information that contributed from social media, validation is what we need to achieve after the classification/categorization. Because rumors and the out-of-date information could be forwarded quickly and the information platform got overrun very easy. With more sophisticated analysis and more involvement by volunteers, we can train the intelligent pattern towards a better auto-validation model for the near future.

4. Volunteered Geography Information

One of the common problem for disaster response in developing area is lack of base map data. Open Street Map (OSM) is a wiki-style open platform supported by an energized volunteered community. The Humanitarian OSM Team (HOT) kicked off Missing Maps project that support the area where does not have good base map coverage. In Asia, many mappers from Japan, Philippines, Indonesia, and Chinese Taipei support this activity. For the area that has disaster, it is about the response and relief. For others, it is about the resilience and capacity building. For an example, OSM JP and OSM TW were together to do the mapping for the response to Hurricane Patricia that hit Mexico City in October 2015. Since some of the area of Mexico are not well mapped, the OSM community do the mapping is not only for the response to hurricane, but also do it for the capacity building.
Once the map was done, it can be openly and freely used by anyone, including the government agencies and the NGOs. We have seen more and more activities from HOT to support Nepal earthquake, Pakistan/Afghanistan earthquake, Ebola outbreak in west Africa, and so on.

5. Summary

To conclude what we have walked through, the combination and integration of SMS, location, and map on mobile platform will be a very important role for the disaster resilience and response. Asian Development Bank (ADB) launched "Applying Space-Based Technology and Information and Communication Technology to Strengthen Disaster Resilience" project to address the importance of ICT for disaster resilience and put into practice. With the open data interface that provided by government, social media, and some of international organizations, we believe the information and communication technologies will be one of the keys to disaster resilience and response for the next decades!
Innovation, creativity and entrepreneurship are leading trends of today’s world. Recognizing small and medium enterprises (SMEs) as the man driver of the economic development of Chinese Taipei, the "APEC Accelerator Network Initiative" (known as the "AAN Initiative") was put forth in 2013 as a platform that pulls together Asia-Pacific resources for entrepreneurs while taking reference from the success experiences of Silicon Valley and the likes. With a clear aim to build an APEC entrepreneur ecosystem, the AAN Initiative has been widely supported and recognized and now boasts more than 50 member accelerators/incubators from 15 APEC member economies. The AAN Initiative also actively sought partnership with both public and private sectors, as evidenced by the 3 successful installments of the APEC Global Challenge sponsored by Intel and Siemens and participated by 90 teams and over 1,000 people from transnational corporations, international ventures and accelerators from 21 APEC member economies.

There has been a series of encouraging post-Challenge news as international venture capitalists turn their attention to outstanding teams in the APEC Global Challenge. In terms of domestic teams, Gogolook from Chinese Taipei was soon acquired by Naver, the parent company of Line, for more than US$18 million and ventures into the global marketplace with Japanese and Korean creative synergy; Golface quickly secured investment from Phison Electronics Corp; Viscovery saw its technologies adopted by Google Glass and successfully set up a Singaporean office after winning a round-A investment of US$5 million by Singapore-based Pinehurst Advisors; bOMDIC gladly received US$650,000 in investment by Phison Electronics Corp and Simplo Co.; ServTech took home the first-place award in the ‘Internet, Software and Mobile’ category in the Intel Global Challenge; HyXen Technology obtained over US$1 million in investment from Foxconn Group; and AirSig received US$2 million from angel investor Foxconn Group, making AirSig the highest-value startup in Chinese Taipei. In terms of teams from other countries, Roam & Wonder from Hong Kong won 500 startup investment and an opportunity to set up a branch office in Indonesia; 8 village from Indonesia gained investment from a Singaporean venture capital company; Evenesis from Malaysia gained financial support from a local technology development agency; and Cinenapapaya from Peru won sponsorship in addition to gaining an opportunity to serve as an international business mentor. These successful experiences have created, on an international level, great economic values and strong entrepreneurial energy for Chinese Taipei.

The APEC Global Challenge this year was further expanded to accommodate international contesters. In partnership with APEC economic entities, several events related to the APEC Global Challenge were held in Atlanta, USA in June and Iloilo City, the Philippines in September. These wonderful opportunities of international exchanges have helped startups from Chinese Taipei increase the quality of innovation and strengthen their entrepreneurial capabilities.
First Stop: "AAN Forum I" with the US Department of Commerce

Chinese Taipei attended the "40th APEC SMEG Working Group Meetings" in Atlanta, the United States during June 8-11, 2015. On the June 8, Chinese Taipei and the US Department of Commerce jointly hosted the "AAN Forum I," attracting more than 100 APEC SME officials, international venture capitalists, business elites, accelerators and startups to discuss ways to help entrepreneurs unleashes the Power of Innovation, gain access to global resources and early-stage investment opportunities for an expedited journey to the international marketplace.

The forum was inaugurated by Johnny Yeh, Director General of the Small and Medium Enterprise Administration, Ministry of Economic Affairs, Chinese Taipei and Mr. John Andersen, Deputy Assistant Secretary for Global Markets of the U.S. Department of Commerce and APEC SMEWG chair.

Mr. Yeh began his speech by appreciating the US for its unreserved support for the organization of the forum, without which the forum would not have been possible. He then pointed out the importance of innovation and creativity for startups and SMEs to integrate into global supply chains and value chains for the creation of more international business opportunities and growth in an era dominated by opportunities created by a digital economy and the Internet of Things.

In his opening remarks, Mr. Anderson lauded Chinese Taipei’s ability to take substantive actions to realize its concept of an accelerator network, indicating that resource integration among the government, private sector and academia is the main support and growth momentum for startups and technology innovation.

The forum discussed three major issues: 1) leveraging the digital economy: opportunities and challenges of taking your startup global; 2) from start-up to scale-up: early stage investment; and 3) from innovation to integration: start-up communities. Panelists from various member economies shared their visions and experiences on how start-up businesses can overcome challenges brought by a globalized digital economy and seek international business matching opportunities.

Also in the event were demonstrations of innovative products and services by HyXen Technology, Viscovery TW, and Zuvio from Chinese Taipei along with nine teams from countries such as the United States, South Korea, Peru and Chile as a way for them to attract investment. The teams then received practical advice and guidance from experienced mentors so that the teams may connect with the global marketplace more quickly and successfully.

After a series of eye-catching demonstrations, Chile-based team Algramo won the ticket to the October AAN Global Challenge in Taipei.
Picture 1: AAN Forum I opening remarks by Director-General Mr. Johnny Yeh of the Small and Medium Enterprise Administration of the Ministry of Economic Affairs, Chinese Taipei.

Picture 2: Group photo of Director-General Mr. Johnny Yeh (third from right, front row), SMEWG chair Mr. Anderson of the U.S. Department of Commerce (fourth from right, front row) and all AAN Forum participants.

Picture 3: Group photo of participating teams at the AAN award ceremony.
Resilient SMEs for better global supply chains

UN statistics in 2013 show that since 2000 natural disasters had created an economic loss of US$ 2 trillion and 500 billion. Recent disasters including the 2011 Tohoku earthquake and tsunami, 2011 Thailand floods, 2012 Hurricane Sandy, and 2008 Sichuan earthquake have all severely disrupted international logistic chains and industry supply chains. SMEs, in the face of natural disasters, are usually the hardest hit due to their small sizes, lack of proper contingency plans, and limited access to financing.

In light of this, Chinese Taipei in 2011 initiated the APEC multi-year project "Improving Natural Disaster Resilience of APEC SMEs to Facilitate Trade and Investment" to increase the resilience of APEC SMEs against natural disasters by the promotion of business continuity plans (BCPs). The project aims to strengthen SME’s resilience to natural disasters, shorten their emergency response time and increase their recovery efficiency. The project has delivered many encouraging outcomes in the span of four years, marking some of the most significant contributions of Chinese Taipei to APEC.

The APEC SMEWG and APEC EPWG issued a joint statement in the 2014 APEC High Level Policy Dialogue on Resilient SMEs for Better Global Supply Chains, which was not only supported and recognized by APEC senior emergency preparedness officials but also successfully raised the awareness for BCPs in the APEC region. Moreover, the Guidebook on SME Business Continuity Planning led by Chinese Taipei was made available in 7 languages, including English, Indonesian, Japanese, Spanish, Chinese, Vietnamese and Thai, reaching over 40% of the world’s population, thanks to strong support from the many APEC member economies. The guidebook is expected to effectively help APEC SMEs develop their own BCPs and strengthen their risk management and response capabilities, and thereby securing every link on the global supply chains.

BCP for the creation of sustainable and resilient communities

The "APEC Summit and Training Workshop on Promoting SME Business Continuity Planning (BCP)" was organized at Howard Plaza Taipei on July 27-28, 2015 and cohosted by the APEC EPWG. The summit and workshop was inaugurated at the National Science and Technology Center for Disaster Reduction by Deputy Minister Chung-Liang Chien of the Ministry of Technology, Director-General Johnny Yeh of the Small and Medium Enterprise Administration, and APEC senior official of Chinese Taipei Mr. Pei-Yung Hsu of the Department of International Organizations of the Ministry of Foreign Affairs, and high-level officials from the national disaster reduction units of Indonesia and the Philippines. In his opening remarks, Director-General Yeh highlighted that SMEs accounted for 98% of the enterprises in the Asia-Pacific region, providing 64% employment and contributing to 41% GDP of the region. They are the engine for regional economic development
and the backbone for global supply chains. However, the Asia-Pacific experiences over 70% of the world’s natural disasters. In the face of supply chain disruptions, SMEs and the stability of global supply chains would be the hardest hit. Moreover, with the advent of the digital economy and big data, strengthening digital resilience of SMEs and their ability to secure digital assets will be an important topic for SME BCP promotion in the future.

Through public and private collaboration, the summit and workshop, themed "BCP for the creation of sustainable and resilient communities," invited experts from various organizations, such as Asian Disaster Preparedness Center, Singapore’s Business Continuity Management, American Red Cross’ Scientific Advisory Council, Philippine Disaster Recovery Foundation, Taiwan International Logistics & Supply Chain Association, BELFOR Taiwan, Fubon Insurance, and Mingtai Insurance etc. to discuss ways to help increase SME’s disaster resilience and strengthen their BCP capability. In addition, best practices in SME BCP promotion, implementation as well as substantive outcomes of BCP to business operations were shared by seven APEC member economies, i.e. the United States, Singapore, the Philippines, Thailand, Hong Kong, Vietnam and Chinese Taipei in which the Guidebook on SME Business Continuity Planning was used as a training material. Participation by member economies in the summit and workshop effectively formed a network that would help BCP to develop continuously in the APEC region.