

Executive Summary of the ETDA High Level Roundtable
on “Digital Economy for Our Future”
held on Wednesday, 8th August 2015
at Think Big Room, 20th Floor,
Office of the Electronic Transactions Development Agency (Public Organization)

On 8th August 2015, the Electronic Transactions Development Agency (Public Organization), or ETDA, hosted an ETDA High Level Roundtable on the topic: Digital Economy for Our Future, to provide a stage for participants, both Thai and foreigners, to brainstorm and share their opinions on the current situation and future of the digital economy based on the case study of the European Union and other countries. The discussion will lead to development of comprehensive guidelines on Thailand’s digital economy.

Mrs. Surangkana Wayuparb, CEO and Executive Director of ETDA, gave a remark on the objectives of the event and the ETDA’s major mission of promoting secure, safe and reliable electronic transactions in response to the government’s digital economy policy. She also delivered a welcome and appreciation speech to Mom Rajawongse Pridiyathorn Devakula, Deputy Prime Minister, for his honorable presence as a keynote speaker, as well as to representatives from domestic and overseas agencies that were joining to share their points of view and suggestions to help develop more comprehensive strategic and action plans for digital economy of the country.

M.R. Pridiyathorn, in his capacity as Deputy Prime Minister for economic affairs, stated that the incumbent government had been working in line with its social and economic development policy with aim of reducing digital divide in the country and ensuring long-term marginal benefit from the technology available. According to him, Thailand is actually quite strong in terms of technological readiness but still unable to efficiently use and make the most of the technology available. He also mentioned guidance for implementing the digital economy policy in the context of Thailand and exchanged his opinion with other participants which included experts who took part in developing related strategic foundation from International Institute of Communications (IIC) and Office of Communications (Ofcom) from the United Kingdom; Department of Communications of the Australian Government; and Google Asia Pacific at the People’s Republic of China. Other Thai participants were those who played a part in setting up national policies i.e. executives from the telecommunications, financial and banking sectors; leading online service providers; and public regulatory agencies such as the Bank of Thailand (BOT), the Office of Insurance Commission (OIC) and the Security and Exchange Commission (SEC).

The main points of discussion are shown in brief below.

- **International Institute of Communications or IIC, Great Britain**

Ms. Andrea Millwood Hargrave, Director General of the IIC, provided an overview of the IIC, which included its roles, duties and past performance. Established in 1969, ICC is a global non-profit institute for telecommunications, media and technology-related industries.

To make it clear for everyone about the digital economy, Ms. Hargrave said that the digital ecosystem concerns not only financial and economic dimensions but also the wise use of human resources, budgets and other resources available while taking into account competitiveness in the global market.

The Organization for Economic Co-operation and Development (OECD), which is an organization for economic cooperation and development, defined the digital ecosystem in three aspects: building blocks, framework conditions and socio-economic objectives.

(1) The building blocks and network convergence

To develop digital infrastructure, solid regulations and policies on spectrum allocation and the use of spectrum to create a network in order to ensure efficient use and accessibility to technologies in remote areas should be set up. This does not simply concern financial support but the government must also allow for development of high speed networks, both fixed and wireless, which are the backbone of communication networks. In addition, broadband competition should be encouraged. This probably involves public-private financing and, necessarily, cooperation between the public and private sectors.

(2) Framework conditions

Content is a major driver for digital take-up. The content in the current global context includes what pertain to the creative industries e.g. games, advertisements and local content. Framework conditions also involve national competitiveness and development of applications to serve smarter technologies such as the machine-to-machine (M2M) technology and smart cars. Creative content has become more and more important on the global stage, so it is essential to encourage accessibility to the content so as to strengthen international stature of the country.

Moreover, the creative content is a major driving force behind the development of smart application and smart data. Another key factor to success is public services; the government should thus actively develop and provide e-Government services. For example, farmers should be able to check the market prices of their produces using the e-services provided.

(3) Socio-economic objectives

Three main objectives of the digital ecosystem development are economic benefits, workforce benefits and social benefits.

However, the development of digital ecosystem may induce challenges in terms of:

- Cybersecurity: The world has been coping with myriad challenging issues since after the Snowden's disclosure of NSA's global surveillance programs. The public and private sectors in many countries need to allocate a considerable amount of budget for addressing and preventing hacking and other cyber threats, which, otherwise, would endanger the economic system as well as international trust.
- Privacy: Most people are still not aware of the importance and benefits of their own personal information and so usually disclose it to others. The government sector should also implement a robust and efficient digital identity management system.
- Consumer protection
- Citizen empowerment: Safety and reliability should be guaranteed to encourage the people to engage in electronic transactions such as mobile payment.
- Investment: Not only domestic but also cross-border investment should be taken into account. The European Union (EU), for example, is striving to create a digital single market (DSM). To prepare for the implementation of the ASEAN Economic Community (AEC), Thailand thus should revise the existing laws and regulations and enter into international agreements on taxation and other cross-border transaction related issues.

Furthermore, industry-government forums should be developed to encourage cooperation from relevant organizations; provide suggestions on what the government should modify, improve or support; and implement human resource development program in each industry.

Last but not least, it is of great importance to foster the public's understanding and confidence in the digital ecosystem. The government should educate the people about the necessity of and benefits from technology adoption.

- **Office of Communications or Ofcom, Great Britain**

Mr. Jeremy Olivier, Head of Multimedia at Ofcom, gave a remark on the digital single market policy, which the European Union has shaped to drive the digital economy forward.

The digital single market can be defined as (1) a domestic single market; or (2) a cross-border single market.

To create a digital single market, it is essential to develop telecommunications networks, enhance harmonization in the EU market, and reduce trade barriers, especially in the telecommunications industry where small entrepreneurs should be provided with opportunities to compete in the marketplace.

The digital single market will enable competition, streamline cross-border trades in Europe, and protecting the cross-border businesses.

Consumer protection is an essential part of the digital ecosystem. To efficiently drive the digital economy forward, legal measures have been devised to ensure consumer protection around the following three objectives.

(1) To standardize and systematize a consumer protection scheme for all over Europe.

(2) To facilitate cross-border trading.

(3) To strengthen cooperation within the EU for good practice in customer protection enforcement, this will boost the consumer's confidence in the e-commerce operators. The cooperation covers the protection of personal information of the consumers. That is, the operators can collect the consumers' personal information just to the extent agreed by the consumers.

Laws and regulations concerning VAT, tariffs, freight transportation and digital economy infrastructure have been revised and developed to facilitate cross-border trading. Ofcom has played a vital role in the infrastructure development in the United Kingdom and enabled comprehensive broadband services to assure the country's economic competitiveness.

On hard infrastructure policy in the United Kingdom, operators of the infrastructure businesses have been functionally separated from retailers of electronic communication services to allow for efficient development of hard infrastructure. New regulations are in the pipeline to facilitate fiber infrastructure development. Once a hard infrastructure system has been developed, the operator can sell it to retailers or a third party.

Mr. Olivier also fielded the questions from M.R. Pridiyathorn on the currency and payment system in the digital single market. He stated that the digital single market is a policy matter of the European Union. Although the euro is primarily used, other currencies are also allowed in the digital single market.

Apart from the competition intervention, the United Kingdom has been rolling out high-speed infrastructure in faraway districts where no incentives exist for the private sector to invest, in an

attempt to maximize accessibility to digital technology. It is aimed that 90 percent of the people in the United Kingdom will have an access to high-speed infrastructure by 2016.

- **Google Asia Pacific at the People's Republic of China**

Ms. Ann Lavin, Director of Public and Policy & Government Affairs at Southeast Asia and Greater China, Google Asia Pacific, delivered a speech on the topic: Making the Economy a Digital Economy. She initially talked about the TRPC Going Digital Report which provides a report on the growth of the countries that have implemented the digital economy policy, with a focus on Japan, Korea, India, Indonesia and Vietnam. To develop the digital ecosystem, these countries started with building blocks of a digital economy to encourage extensive use of mobile communication devices, ubiquitous internet access, interoperable mobile and e-payment systems, and open online marketplaces with a conducive business environment. There should also be transparent and enabling policies and regulations on digital economy. Key factors to successful implementation of a digital economy policy is an appropriate policymaking approach, cost reduction in a business, business innovations, scalability of local businesses, and an economic system which allows for international investment and trades and prioritizes human resource empowerment.

In this connection, he proposed the following guidance for policymaking.

- (1) The government should have a broad, clear vision for digital advancement.
- (2) The policy must be clear, transparent, consistent and predictable.
- (3) Local regulations on payment, cybersecurity and consumer protection should be compatible with those of the trading partners and the economic system in other regions.
- (4) Compulsory education as well as on-the-job skill and knowledge training programs to educate people about digital economy should be reviewed and promoted.
- (5) A domestic digital ecosystem should be developed.
- (6) The payment, registration, application and approval processes should be streamlined.
- (7) Appropriate regulations should be imposed to minimize unintended impacts.
- (8) Cooperation within the industry sector should be advocated to ensure the same standard throughout the sector, interoperability, and social protection.

Additionally, the society requires great flexibility to adapt to the digital era. As the digital ecosystem would lead to extensive cross-border trading, regulatory harmonization is of importance for development of international economy.

In this connection, Ms. Lavin expressed Google's concern about the influence of the growing digital ecosystem over the people's behaviors.

In the era of big data, the success of data-driven innovation development in other countries should be learnt so as to ensure the use of data in the best interest of the country. A noteworthy example is the Migraine Buddy – a Singapore-based healthcare application – which works by analyzing the user's daily patterns and then proposing the most appropriate treatment of migraine. Despite some concerns about the privacy issue, it will be of great advantage if the patients' personal information is recorded for their future routine and life-saving treatments.

In many other cases, however, personal information of an individual such as his/her current position can be leaked through the use of innovative applications, but actually the government, in general, would not attempt to investigate the privates of any citizen unless it is a necessary or reasonable. The New York City Municipality, just to name a few, saw the need to search into the database and detected 95 percent of the people who produced sewage sludge that had clogged more than 60 sewers in the city. On the other hand, dairy farmers in New Zealand optimized the digital data for their farm management planning.

It is noted that the global wealth of data keeps growing and is commonly employed by all the world citizens. The use of these data is analogous to utilization of sunlight; when one makes use of sunlight, it does not mean that it has been taken away from others. It is essential that we learn to use the considerable data available wisely.

Another example of data-driven innovation is the development of Google Translation. Provided some time for accumulating linguistic data, the application would work better.

Data-driven innovation powers can be reflected in the evolution of the Internet of Things – an environment in which everything is interconnected electronically to make life most convenient for all. Nest, for instance, is the innovation Google bought to help the users save on electricity cost incurred by the use of air conditioning system.

In such a data-driven context, the government should thus take into account free flow of information, the issues of privacy and security, and information sharing, when setting up a policy on digital economy.

- **Department of Communications, Australian Government**

Ms. Nerida O’Loughlin, Deputy Secretary of the Department of Communications, Australian Government, gave a brief presentation on Australia’s digital economy policy. Statistically, Australia ranks fourth, out of 138 countries, on internet access. Accessibility is possible at 94 percent of premises across the country.

In 1900, one fourth of the Australian people worked in the agricultural sector but today the number falls to two percent owing to the state policy of promoting digital economy, which results in drastic change in the labor structure. The income from online trading is potentially rising and most of Australian businesses have been driven through the internet and flourish with greater potential in terms of digital competition. This is achieved not by the government’s operation alone, but with benign cooperation from the private sector.

The Australian has implemented the digital economy policy since 2000, with soft and hard infrastructure development in the initial stage. The most recent strategic plan, 2011 National Digital Economy Strategy (NDES), was updated in 2013. The updated plan named Advancing Australia as a Digital Economy puts a focus on promoting online engagement by the SMEs. It will be updated again in near future under a public-private collaborative scheme.

An important measure of the strategic plan is encouraging young people to use the internet for information search and enabling internet access in communities across the country.

Productivity, economic growth and communities’ accessibility to broadband networks are major indicators of how efficiently the digital economy strategies work. The communities’ accessibility to telehealth services contributes considerably to the people’s healthiness and longevity, and hence improved quality of life. Still, some healthcare service providers remain unsure of the effectiveness of online services and hold out for the outcome of the ongoing pilot project.

Another program serving as digital economy driver in Australia is the Digital Transformation Agenda in the 2015-16 Federal Budget. With a relatively substantial budget, compared with that allocated to other departments, the program aims to drive innovation and make it easier and faster for individuals and businesses to access government services. This includes digitizing government services; making services easier to access, simpler to use and quicker to transact; developing a new digital mailbox for a “Tell Us Once” service; educating people on how to use the internet and e-government services; and standardizing grants administration across multiple government agencies. Another prioritized agenda is development of human resource in the field of IT by placing greater emphasis on mathematics and science education at primary and secondary schools and introducing computer coding program across the curriculum.

To foster innovation, several measures are devised. These include tax benefits, employee share schemes, crowd-source funding and venture capital.

The Australian government places great importance on efficient management of its large volume of data to ensure security.

As lessons learned by Australia, to increase productivity and boost economic growth, cost reduction and marketing efficiency are both essential. This should be juxtaposed with other factors including government's intervention in some activities such as education, internet literacy, cybersecurity, infrastructure investment, support for development of regulations to provide for different economic activities, encouraging the private sector to continue with their businesses, development of production process and improvement of digital access across the communities as well as the businesses.

It is also interesting to learn about the case study of Australia in comparison with that of China, where, in the digital economy context, marketing activities turn out more effective than production activities. The Australian government places more emphasis on the SMEs and so assists them in developing purely digital businesses in which all transactions e.g. order and logistics can be performed online.

The Thai participants then shared their opinions on digital economy and preferred environment in Thailand, which can be summarized as follows.

- Digital economy is regarded as a tool for developing national economy and driving the country to digital future. However, it is essential to take into account the context of Thailand since, in the past, several economic schemes were initiated based on practical concepts but inefficiently implemented due to incompatibility with the local context.

- Service businesses should be run by the private sector so as to provide the consumers with multiple choices and enable competition, which would lead to improved production efficiency. Meanwhile, the government sector will play a vital role in setting up policies and regulations; ensuring fair competition; and providing public services that cannot be handled by the private sector.

- To ensure success, Thailand's digital economy should be started and developed from the resources available.

- It is good that the government is striving for a clear digital economy agenda and the private sector would be prompt to respond to the policy. An important success factor is to encourage Thai people to connect to the internet by the mobile. According to the statistics, more than 80 percent of Thai people use the internet and enjoy access to different types of social media. The demand for 4G services thus becomes ever increasing as the 4G networks and devices will

enable faster connectivity, and this means the demand for more spectrums. It is highly recommended that additional spectrums be allocated for the digital future. In this connection, the ongoing digital economy policy is thus favorable for the auctions for 4G spectrum which will be held around the end of 2015.

- On the government's policy of enabling internet access in every house, this will not be a problem in Bangkok and big cities. The challenge is how to provide accessibility to those people in remote areas, especially the elderly, to ensure ubiquitous internet penetration. A possible solution is development of village digital centers where the senior citizens can foregather and connect to the internet.

- The people in general regard the digital economy as new economy or internet economy as it is assumed to be related to the use of internet. In Korea and Japan, where the digital technologies are far more advanced than those in many other European countries or the United States, their digital economy policies features some distinctive characteristics in terms of fixed (wired) broadband and over-the-top (OTT) operators.

- 1) Fixed broadband: The minimum speed of internet access must be 1000Mbps.
- 2) Wired broadband: Each service provider is required to operate efficiently at an appropriate spectrum. (In Thailand, 4G services will be offered and, higher speed must be guaranteed. It is interesting to learn about the preparedness of all relevant parties at present)
- 3) OTT operators and market capitalization: Of the 15 leading operators which include Apple, Google and Microsoft, 11 are US-based while the other four are Chinese. Chinese mobiles, in general, works at more than 100Mbps speed.

- From the point of view of a service provider, Thailand has a problem on numerous unused spectrums. Therefore, if these spectrums are offered for bid, the spectrum speed should be improved too. Owing to the rising demand, many service providers are interested in these unused spectrums. Given that the government strives for thriving digital economy, the auctions for these spectrums should be held immediately. The private sector is confident that the current government has enough power and potential to drive the digital economy forward in Thailand.

- The private sector expects several outcomes from this government's initiatives on digital economy which may require some time for careful implementation of the policy with clear roadmap on what to do to achieve what are desired. The public in general should have precise understanding about digital economy and what they would benefit from the government's initiatives. In this pursuit, a lot of works are to be accomplished in the next few years while others cannot be completed within a short period of time.

- What the private sector needs is the government's continuous support in these initiative programs and consistent follow-up. This is because Thailand, over the past many years, always saw discontinuity of the follow-up on the policies that were initiated and finally failed

to implement them. So it is now hoped that the incumbent government will be able to initiate a policy and implant, in Thailand, a blueprint of the digital economy for the next 10-20 years, to ensure that all undertakings will be continued and followed up regardless the change of the government. In the past, the private sector was unable to take much action due to the lack of supporting regulations. Imposition of supporting regulations is thus another expectation. Above all, to meet the objectives of digital economy, all the resources including workforce, budget, spectrums and soft infrastructure should be developed and allocated in an appropriate and efficient manner.