Technology Market Scan

ASIA-PACIFIC

CHINA

Policies to boost innovation

The Chinese government decided to implement a new set of reform policies and measures to boost innovation and creativity, according to a statement released after a State Council executive meeting presided over by Premier Li Keqiang. Reform measures in boosting innovation have been piloted in eight Chinese cities and regions including the Beijing-Tianjin-Hebei region, Shanghai and Guangdong. The first pilot program covering 13 policy measures were rolled out nationwide in 2017. It was decided during a meeting that another batch of 23 reform measures will be rolled out to mobilize innovation resources, incentivize innovation activities and nurture new drivers of growth.

More efforts will be made to incentivize the commercialization of R&D findings. Commercialization professionals will participate in the whole process. Universities and research institutes will be encouraged to participate, through commercial deals, in business research on technological breakthroughs. New fin-tech services will be introduced to explore more financing channels for small- and medium-sized tech companies, including asset-light firms and firms yet to make profits. Local government equity funds will be channeled to support seed and early stage high-tech startups. Insurance companies will be encouraged to develop products that cover patent enforcement and patent infringement to forestall patent holders' losses from IPR violations.

Market-based operation of state-owned scientific research instrument and equipment will be promoted. Mechanisms will be established to allow for innovation-related decision-making on a trial-and-error basis. It was also decided at the meeting that the three reform measures, which have so far been piloted in one or two places, will be extended to all the above-mentioned eight cities and regions. Such measures include granting scientists and researchers a certain share of ownership of their findings proportionate to their job positions, setting up science and technology innovation sections in regional equity markets, and allowing greater autonomy for universities administered by local governments to attract talents and confer academic titles.

The draft amendment, in learning from international practice, substantially raised penalties for patent infringements. It stipulated that Internet service providers should take on joint responsibilities when they fail to stop the infringements on a timely basis. It also specified the incentive mechanism that would allow inventors or designers to reasonably profit from yields out of their service invention and creation. The amendment will be submitted to the Standing Committee of the National People's Congress for review. A draft regulation on emergency response to work safety accidents was also passed at the meeting, according to the statement.

http://www.globaltimes.cn

Draft amendments to patent law

A new draft amendment to China's patent law aimed at enhancing protection of intellectual property rights (IPR) will likely be passed in the country's legislative body next year, as part of China's broader efforts to boost IPR protection, officials revealed at a press briefing. The new draft amendment has been submitted to the National People's Congress (NPC) for review and is likely to be approved next year, Yin Xintian, an official with the National Intellectual Property Administration said at the briefing. The new amendment is aimed at stepping up efforts to crack down on IPR infringement and adopt international practices, the *Xinhua News Agency* reported.

To discourage entities from violating IPR, the new amendment also seeks to significantly increase punishments for violators based on their intentions, according to the report. Another major change in the new amendment is that once adopted, internet service providers would be required by law to stop activities on their sites that infringe on others' IPR or they will face punishment. The draft amendment was passed by an executive meeting of the State Council, China's cabinet, on December 6 before being submitted to the NPC for final review.

China has in recent years stepped up its efforts to enhance protection of IPR, as the country shifts focus to an innovation-driven economy and faces growing concerns from foreign governments over its IPR protection. China has become a leader in new patent filings in recent years. In 2017, there were 1.38 million new patent applications in China, according to *Xinhua*.

http://www.globaltimes.cn

INDIA

Increment in patent applicants granted

The UN's World Intellectual Property Organization (WIPO) reported that the number of patents which are granted by India has reached up 50 percent in the year 2017, simultaneously keeping steep increase trend. According to the WIPO's reports released on Monday, increment of the patent from 8,248 in 2016 to 12,387 in 2017 has been seen. 2017 year's number of patent granted by India was approximately double than the 6,022 patents granted in 2015.

According to WIPO's statistics, among the patents granted last year, 1,712 was reserved to the individuals and entities based in India and other 10,675 accounted to foreigners. WIPO states the increment in the steep was made through the patents which were granted to foreigners, which holds around 85 percent of the total increase steep.

WIPO reported, in 2016, domestic entities and individuals held 1,115 and 7,133 accounted to foreigners, and in 2015, domestics held 822 and 5,200 belongs to foreigners. The estimated reports stated that 1.4 million patents were globally granted in the year 2017.

Reports states that among 46,582 patents granted by India last year, 9,222 has come from the country US. US generated 606,956 patents last year, among which 10,309 came from the country India. Though, India has ranked 10th in the world for the patents, none of Indian company or university has come under top 50 patent applicants.

According to WIPO reports released, India has 1.6 million active trademarks, from which 339,692 has been registered last year (2017), 52,553 for foreigners and 287,139 from domestics. India, increment in patent applicants, has shown their sign of growing entrepreneurship, Gurry said.

https://www.theindianwire.com

Patents filed by Indian Startups

Three years back, India had whopping 2,46,495 pending applications for patents, which was due to in-capabilities of government departments to handle patent applications. In year 2015, between April to October, government rejected 605 patent applications and 6,543 trademark registrations due to number of reasons where insufficient staffing was one of them.

In 2017 however, the things seem to have changed a little bit as according to the data from the Department of Industrial Policy & Promotion (DIPP) reveals that Indian startups filed 909 patent applications last year, as compared to a mere 61 in 2016. One of the key reasons that resulted the rapid increase in filing patents from Indian startup ecosystem is the way investors look at startup with one or more patents. A startup with a patent even if it is pending tag it with 'innovation' label.

Venture Capitalists (VCs), who are increasingly investing in startups, are preferring to pump money into startups that have filed patents. If a patent has been filed, it means that the project has some innovation, which will result in increased market value. Further, getting a patent would also put these companies in the elite club of startups. Also, a tweak made by government in the definition of startups allowed startups to become eligible for various benefits being handed over to startups in India, including 80% rebate on patent filing, under the latest patent framework introduced by the authorities last year.

Additionally, the Indian government's Startup India initiative has also created awareness towards minimizing legal risk against IP infringement. This resulted in a positive impact and now more startups are investing in on-boarding IP lawyers at initial stages of commercialization of their product. Last year, the government had also introduced mechanisms for speedier process of filing patent applications, which then allowed companies to acquire a patent in India within a year of its filing.

https://www.inventiva.co.in

INDONESIA

SMEs R&D spending

According to the Organization for Economic Co-operation and Development (OECD), less than 0.1 percent of research and development (R&D) spending is conducted by small and medium enterprises (SMEs) in Indonesia, far behind the OECD average of 2.3 percent. That figure was presented in a press statement for an OECD report on SMEs and entrepreneurship in Indonesia, presented by OECD secretary-general Angel Gurría in Nusa Dua, Bali.

"In Indonesia, small companies employing fewer than 20 people account for more than three-quarters of national employment, more than in any OECD country," said Gurría. "This is why policies to boost SME development should remain a priority for the Indonesian government." Cooperatives and Small and Medium Enterprises Minister Anak Agung Gede Ngurah Puspayoga and National Development Planning Minister Bambang Brodjonegoro spoke at the same event.

The OECD suggested that the government increase spending on skills upgrading and innovation at SMEs to strengthen productivity growth. The OECD also suggested scaling back some large programs, such as the people's business credit (KUR) – a loan program with subsidized interest rates, while increasing the focus on targeted groups, such as first-time borrowers and SMEs from regions lagging behind in terms of development.

"To improve the overall coherence of Indonesia's SME policy, the review recommends the integration and merger of programs that offer very similar services but are operated by different ministries, for example in the field of business development services and business incubators," the statement says.

https://www.thejakartapost.com

MALAYSIA

GDP contribution of SMEs in manufacturing

The Ministry of Entrepreneur Development (MED) aims to increase the contribution of small and medium enterprises (SMEs) in the manufacturing sector to 7.0 per cent of the country's gross domestic product (GDP) from the current 5.8 per cent by 2020. Its minister, Datuk Seri Mohd Redzuan Yusof, said the improvement was achievable by creating a conducive environment for SMEs to thrive.

During the tabling of the mid-term review of the 11th Malaysia Plan 2016-2020 in Parliament, the government said it aimed to increase GDP contribution of SMEs to 41 per cent in 2020. As at 2017, SME contribution to Malaysia's GDP rose to 37.1 per cent from 36.6 per cent in 2016.

Mohd Redzuan said the development of a strong and dynamic SME sector was vital for a vibrant and sustainable economy. "However, the policy space to foster SME contribution requires, to a great degree, a conducive framework and access to strategic resources. "As such, the MED is committed to ensure that the government's effort towards entrepreneur and SME development will be holistic, integrated and targeted in order to pave the path for new opportunities and grow our capital market," he said. Meanwhile, Mohd Redzuan said grants for research and development, as well as, the prototype for the proposed national car would be announced early next year.

https://www.malaymail.com

Promoting local SME products

The Domestic Trade and Consumer Affairs Ministry (KPDNHEP) has allocated RM20 million for the promotion of local small and medium enterprise (SME) products.

KPDNHEP Business Development Division Director Ismainur Hadi Amat Bakeron said the allocation would also fund its "Buy Malaysian Products" campaigns nationwide, which will create greater awareness among consumers on local brands.

"The ministry will act as 'SMEs Custodian' and facilitator for SME entrepreneurs in developing their products," he told reporters after closing the ministry's annual "Program Citarasa Malaysia" event. He said the ministry had doubled its efforts to rid the negative perception among Malaysians on the low quality of local products.

"Our SME Product Development Programme aims to develop SME entrepreneurs' products to increase their ability to compete with international products as well as increase sales revenue through attractive and trendy packaging. Through this programme, we will identify products that have the potential for permanent listing in the hypermarkets, but do not meet the standard set by the hypermarkets," he added.

The Ministry's 15th Series of Program Citarasa Malaysia, in collaboration with Labuan's 24-Hour Supermarket D' One Mart, introduced new local products from 13 SME entrepreneurs.

http://www.dailyexpress.com.my

PHILIPPINES

"Technology can grow Philippine economy 10% faster"

The Philippine economy could grow faster by an estimated 10 percent, provided that emerging technologies, knowledge and the Fourth Industrial Revolution can be utilized to accelerate productivity, according to a research fellow of the Philippine Institute of Development Studies (PIDS). "Right now, we are growing at about 6 percent. We have not fully utilized the existing technology. How much more if we are going to be able to overcome these barriers to the adoption and adaptation of current technology and knowledge to improve our productivity and then some more with the new technologies. We should be growing fast," PIDS distinguished visiting research fellow Dr. Vicente Paqueo said in an interview.

To take full advantage of the Fourth Industrial Revolution, Paqueo underscored the need for the country to hop into the bandwagon headed for the knowledge and technological frontier, where the United States and advanced European countries belong. Technologies commonly identified as "frontier" and are tagged as being part of Industry 4.0 include, 3D printing, the Internet of Things, AI, robotics, big data and cloud computing. For his part, PIDS senior research fellow Dr. Jose Ramon Albert underscored the need for the country to invest more in research and development (R&D).

Albert cited the benchmark of United Nations Educational, Scientific and Cultural Organization (UNESCO) suggesting that R&D spending should amount to about 1 percent of a country's gross domestic product (GDP). "We are (only) spending 0.2 percent, it's one-fifth of 1 percent of GDP. That's just R&D, we think also of the complementaries for education. We are still relatively underspending for education," he said in the same interview.

Albert pointed out that hard and soft infrastructure, as well as capacity development of human resources and institutions, are complementary factors to R&D investments that need to be addressed in improving readiness to the Fourth Industrial Revolution. "It must be a whole package. That's the problem sometimes we tend to be focused too much on one thing and we forget that they are all connected. We have to like to put all of these together," he said.

Albert also cited as an example Estonia, a former Soviet republic, which has managed to use technology considerably across government. "They use many kinds technologies and they are the forefront now of trying to use and harness technology. They are fast growing economy so potentials can actually become realized if you invest properly in certain areas. And part of it will be ICT (information communications technology), technical areas, but part of it will also be in other skills, soft skills where potentially these will not be replaced by automation," he added.

http://www.pna.gov.ph

Technology boosting Philippine SMEs' competitiveness

Adaptation by Philippine-based small and medium enterprises (SMEs) is high and this gives them a big advantage to be at par with the best in the world. Results of the survey "Global is the New Local: The Changing International Trade Patterns of Small Businesses in Asia Pacific" commissioned by FedEx Express in nine Asia Pacific (APAC) countries and conducted from March to April 2018 showed that 81 percent of around 500 domestic SME players use emerging technology to improve supply chains and distribution channels.

In a briefing, FedEd Express Philippines Managing Director John Peterson said the survey indicated that software automation and mobile payments are the widely used technologies in the country. Use of these innovations allows small businesses that are part of the study to increase their revenues as they improve their products, among others. On average, exports account for 89 percent of the surveyed small enterprises' total annual revenue. Bulk or 56 percent of these exports are within the APAC region while 44 percent is accounted for by those outside APAC. Outside APAC, Philippine SMEs' major export destinations are the US and India, the survey showed.

Asked for their outlook on revenues, 56 percent of the exporter-respondents said they expect their revenues to increase for trade within APAC while 67 percent are optimistic of higher revenues from outside APAC. For those that are into importation, the survey showed that 59 percent prefer to source their materials locally while those that buy overseas source it primarily from China, Japan, Singapore and India.

Raw materials and finished products registered the highest rating, at 46 percent each, in terms of the types of goods that local SME import. Components came in third at 30 percent, followed by professional services, 28 percent; designs, 21 percent;

and others, three percent. Asked for reasons for importing goods, the respondents said better materials allow them to increase the quality of their products. Survey results showed that 95 percent of the respondents use social commerce, with 76 percent using this to find customers overseas.

http://www.pna.gov.ph

REPUBLIC OF KOREA

R&D spending to GDP ratio

Republic of Korea has reclaimed the number one spot in terms of the ratio of research and development (R&D) spending to gross domestic product (GDP). Republic of Korea's ratio was 4.55 percent last year, higher than Israel's 4.25 percent. The total amount of Republic of Korea's R&D investment reached 78.8 trillion won (US$69.73 billion) last year, up more than 13.5 percent from a year earlier and the fifth largest in the world.

The Ministry of Science and ICT released on Nov. 27 the results of its survey on R&D activities carried out in the government, public and private sectors in Republic of Korea last year. The survey was conducted on 59,603 domestic companies from April to September based on the OECD standards for international comparison of material and human resource injected into R&D. Out of the 59,603 firms, 50,619 responded to the survey, showing a collection rate of 84.9 percent, and those not responded the survey were so small that they wouldn't actually affect the results, according to the government.

Republic of Korea's total R&D investment recorded 78.8 trillion won (US$69.73 billion) last year, up 9.38 trillion won (US$8.3 billion) from a year ago. Republic of Korea ranked fifth among OECD member countries after the United States, China, Japan and Germany. The R&D investment of the private sector grew 14.7 percent, or 7.72 trillion won (US$6.83 billion) to 60.06 trillion won (US$53.15 billion) compared to the previous year, while that of the government and public sector rose 8.1 percent, or 1.33 trillion won (US$1.17 billion).

Corporations spent 62.56 trillion won (US$55.37 billion) on R&D activity, accounting for 79.4 percent of the total R&D investments, followed by public research institutes 9.54 trillion won (US$8.45 billion) for 12.1 percent and universities 6.68 trillion won (US$5.91 billion) for 8.5 percent. Corporate investment included part of the government's R&D activity worth 20 trillion won (US$17.7 billion) a year.

Republic of Korea also showed the highest ratio of R&D spending to GDP in the world with 4.55 percent, up 0.32 percentage points from a year earlier and higher than Israel's 4.25 percent. By R&D stage, development research for commercialization accounted for 63.6 percent of the total R&D investments with 50.08 trillion won (US$44.32 billion), followed by application research with 17.31 trillion won (US$15.32 billion) and basic research with 11.39 trillion won (US$10.08 billion).

The total number of researchers in R&D activity gained 4.8 percent, or 22,027, to 482,796 last year, and that of full time equivalent (FTE) increased 21,808 to 383,100, coming in sixth place in the world. The number of researchers for per 1,000 of the economically active population stood at 13.9 and per 1,000 people at 7.4. The number of researchers at corporations came to 343,367, accounting for 71.1 percent, followed by universities 102,877 for 21.3 percent and public research institutes 36,552 for 7.6 percent.

The country's R&D costs per 1,000 researchers rose 7.1 percent, or 33.56 million won (US$29,699), to 205.66 million won (US$182,000) compared to a year ago but the figure fell short of the US with US$359,850 (406.63 million won), Germany with US$254,373 (287.44 million won) and Japan with US$233,556 (263.92 million won).

http://www.businesskorea.co.kr

IP infringers to face punitive damages

Those who intentionally infringe patents and trade secrets of others will be subject to punitive damages starting June next year, Republic of Korea's intellectual property office said. The National Assembly approved bills to revise the Patent Act and the Unfair Competition Prevention and Trade Secret Prevention Act, which included reinforced penalties for violations, according to the Korean Intellectual Property Office.

The median value of damages in patent infringement lawsuits here stood at 60 million ($53,452) as of the end of last year, the IP office's data showed. The corresponding figure in the United States as of end-2016 was 6.6 billion won. "Even considering the respective size of the two economies, this gap shows that IP infringement victim companies have so far received insufficient compensation," KIPO said in a press release.

The relatively light punishment has also led to prevalent market sentiment that it is more profitable to take advantage of IP assets and pay the damages, if necessary, than to pay the legitimate royalty, according to KIPO.

To curb such violations, the latest revision bill has adopted a punitive damages system that allows maximum compensation of threefold the amount of acknowledged damages. The bill also alleviates the burden of proof for patent holders and trade secret holders.

http://www.koreaherald.com

SRI LANKA

Tax exemptions to agriculture sector SMEs

The government has decided to relieve Small and Medium Enterprises (SME) in Agriculture sector from income tax for 5 years to boost the local production for exports and consumption. Accordingly, the income received from any agro sector such as tea, coconut, rubber, spices, rice, fruits, vegetables, etc., especially by the small-scale entrepreneurs, produced for both exporting and local consumption as food and industrial raw material, will be exempted from income tax for five years, the Ministry of Finance said in a statement.

Additionally, the annual income tax rate on processing industries using local agricultural commodities will be reduced from 28 percent to 14 percent. The measure is expected to benefit farmers as well as consumers. Further, as a further measure to ease hardships on small business operations, a proposal has been made to raise the threshold for the application of Economic Service Charge from Rs.12.5 million per quarter to Rs.50 million per quarter.

The Finance Ministry said the relief measures were taken on the instruction of the President and the Minister of Finance and Economic Affairs aiming to provide the highest priority to agricultural development. The Ministry said the government is of the view that every effort should be made to make use of the 2018/19 Maha cultivation season as a new beginning and a number of relief measures will be provided in the future.

http://www.colombopage.com

THAILAND

First business accelerator for SMEs

In collaboration with United Overseas Bank, The Finlab launched its Smart Business Transformation in Thailand to help SMEs transform their businesses through digital solutions. Thailand is the first market outside of Singapore where The Finlab will offer its SME business transformation programme, Felix Tan, Managing Director of The Finlab, said at a media event on Thursday in Singapore. The Thai launch follows the success of the Singapore programme in August 2018 where 11 Singapore-based SMEs deepened their digital capabilities by piloting the use of technologies such as artificial intelligence and robotics process automation.

The Finlab is a fintech and innovation accelerator under the United Overseas Bank (UOB). Since its inception in 2015, The Finlab has run two acceleration cycles for fintech companies chosen from more than 700 applications from 44 countries. The programme is supported by UOB in Thailand and the Digital Economy Promotion Agency (depa) of Thailand. To support Thai SMEs drive their business performance, The Finlab's three-month Smart Business Transformation Programme will help participating SMEs refine their business models and adopt digital solutions particularly those in online sales and marketing.

Mentors from The Finlab, UOB (Thai) and depa will also guide participating SMEs to identify the unique issues they face in their business and equip them with the tools and knowledge needed to innovate. The SMEs will then be matched with a suitable technology solution provider to address their concerns and to pilot the implementation of the solution. The Finlab is now accepting applications from SMEs in Thailand for the Smart Business Transformation Programme until January 2019. It is also calling for global technology companies and start-ups to participate in the programme as solution providers. The Smart Business Transformation Programme will commence in April 2019.

https://www.finews.asia

VIET NAM

FDI policy to support domestic firms

Việt Nam will institute new policies designed to attract foreign direct investment (FDI) by boosting the development of local companies and setting up value chains driven by advanced technologies. FDI has been a major factor in Việt Nam's rapid socio-economic development; however, some key metrics remain below their expected levels. These include the involvement of local companies in the value chain and the development of the part supply industry. Transfer pricing, outdated technologies and environmental pollution are also significant problems.

Minister of Planning and Investment Nguyễn Chí Dũng said it is time for Việt Nam to consider changes in how it seeks to attract FDI. Changing global investment flow trends such as the US - China trade war, the rise of protectionism, opposition to multilateral free trade and the Fourth Industrial Revolution mean the country's methods of attracting investments are outdated.

The country has taken lessons from its efforts to attract FDI over the last three decades, and the Government has recently stated that Việt Nam would not make too many sacrifices to attract investments. Dũng said FDI should be associated with sustainable development, green growth, economic restructuring, boosting domestic industry and the Industry 4.0. Dũng was quoted in a note on the ministry's e-portal saying that while FDI is an important resource, it still accounts for just 25 per cent of total investment in the country. Domestic businesses still play a decisive role.

"We have to focus on developing and supporting domestic enterprises to unlock their production capacity," Dũng said. The note also emphasised the importance of the link between FDI and domestic businesses. He said the developmental gap between FDI companies and domestic industry makes it hard for them to connect. To remedy this, Dũng suggested focusing on boosting technology transfer in FDI attraction by selecting projects with advanced, environmentally friendly technologies.

Ministry statistics show that Việt Nam has attracted US $334 billion of FDI into 26,500 projects with a disbursed capital of around $184 billion. FDI has contributed to 52.8 per cent of the processing and manufacturing industry, created 50 per cent of the country's industrial value and provided jobs for 3.6 million labourers.

https://vietnamnews.vn

Global innovation centre coming up

The Ministry of Science and Technology and Xinova signed a Memorandum of Understanding on Wednesday to establish a global innovation centre in Việt Nam to connect Vietnamese innovators with the global innovative network for greater creative ideas. The centre, according to Minister of Science and Technology Chu Ngọc Anh, will serve as a bridge connecting local groups and businesses with a network of more than 12,000 global scientists and innovators. It will also create conditions for Vietnamese scientists and engineers to join the network. Technology management officers and those working in the innovation sector in Việt Nam will have opportunities to learn from the world's newest solutions aiming to boost innovation.

Xinova, a corporation with a network of 12,000 innovators and experts, is operating in nine countries worldwide. It partners with customers and inventors to think beyond the confines of their organisations and solve big problems.

https://vietnamnews.vn