Technology Market Scan

INTERNATIONAL

Technology Bank for LDCs

United Nations officials hailed the establishment of the Technology Bank for the Least Developed Countries (LDCs), which will go a long way in addressing one of the major challenges facing the world's poorest nations. The Bank, to be headquartered in Gebze, Turkey, also marks the achievement of the first target of the 2030 Agenda for Sustainable Development, namely SDG 17.8.

The establishment of the Technology Bank was a priority under the Istanbul Programme of Action adopted in 2011, which represented the vision and strategy for the sustainable development of LDCs. Its importance was confirmed in the 2015 Addis Ababa Action Agenda, adopted at the Third International Conference on Financing for Development, and then again in the 2030 Agenda for Sustainable Development.

The Bank is expected to broaden the application of science, technology and innovation in the world's poorest countries. It will improve technology-related policies, facilitate technology transfer and enhance the integration of the LDCs into the global knowledge-based economy. It will also serve as a knowledge hub, connecting needs, resources and actors; facilitate the access of LDCs to existing technology-related projects; and foster joint initiatives with relevant organizations and the private sector.

With the signing of the host country and contribution agreements, the Turkish Government has committed to provide the Bank with $2 million annually for five years, and also provide personnel and premises in Gebze, which is located outside of Istanbul. It is also planning to implement joint projects with the Bank.

http://www.un.org

ASIA-PACIFIC

CHINA

Efforts to support innovation

China will roll out a series of measures to boost innovation, according to a circular issued by the General Office of the State Council. A total of 13 reform measures will be carried out in eight comprehensive innovation pilot areas, including the Beijing-Tianjin-Hebei region, Shanghai and the Pearl River Delta, and then further promoted nationwide.

According to the circular, the government will enhance the support for innovation by small and medium-sized enterprises by offering one-stop investment and financing information. One-stop service for patent examination, rights protection and verification will also be offered to enterprises, said the circular.

In the meantime, the government will streamline the procedures for foreigners to apply work permits in China, and encourage foreign students to find career opportunities, start their own businesses and apply for work and residence permits. The circular also stressed the need to accelerate the transformation of military production into civilian use.

http://www.chinadaily.com.cn

China's patent operations

The number of China's patent operations stood at more than 170,000 in 2016, a year-on-year increase of nearly 20 percent, according to the latest data from the Patent Information Annual Conference of China 2017 held in Beijing from Sept. 5 to 6.

Patent operations include patent transfer, license and pledge. Intellectual property (IP) is playing an increasingly important role in China's exchange with other countries in fields like economy, trade, science and technology, and culture, Shen Changyu, head of the State Intellectual Property Office, said at the opening ceremony. "China will continue to boost international IP cooperation and facilitate the building of an inclusive, balanced and efficient international IP standard," Shen said.

From establishing its IP system in 1980s, China has become the country that has filed the most patent applications, said Yoshiyuki Takagi, assistant director general of the World Intellectual Property Organization.

http://news.xinhuanet.com

Technology transfer system by 2025

China is looking to complete its national technology transfer system by 2025, said an outline on the system published Tuesday by the State Council, China's cabinet. Also, by 2020, a national technology transfer system that adapts to new circumstances is to be established. Improving the system is key to domestic innovation, economic and social development, and to supporting China's efforts to become a leading power in science and technology. A more unified and open technology market and exchange network on the national level should be set up, the outline noted.

Channels for technology transfers should be expanded to increase the influence of the transfer system. For instance, sci-tech achievements from military departments shall be accessible to civilian departments, and vise versa, while cross-regional transfer should be encouraged.

The outline also asked for a better policy environment and stronger logistical support to ensure efficient operation.

http://www.china.org.cn

INDIA

Rebate on patent fee

More domestic and foreign startups will now be able to access the fast-track mechanism for filing patents, which will drastically cut down the time taken to obtain these rights. The government has introduced a more liberal definition for startups to ensure that many more of them can become eligible for benefits, including lower fees, under the latest patent framework.

Under the new definition, any entity in India recognised as a startup by the competent authority under the Startup India initiative will be eligible. In order to encourage patent filing, the government has amended the Patent Rules 2003. The rules notified on September 2, will allow startups to avail of a rebate in patent fees. "A foreign entity, fulfilling the criteria for turnover and period of incorporation or registration as per Startup India Initiative" would be extended the patent filing

benefits meant for startups, according to the notification.

Over the past year, the definition of startups, as notified by the Department of Industrial Policy and Promotion, has been refined to include changes such as the inclusion of job opportunities as an important criterion. Startups were earlier defined as companies that are only five years old with a maximum turnover of Rs 25 crore per year and working towards innovation.

With the rules revised, startups will be eligible for an 80% rebate on patent fees. The DIPP will bear the facilitation cost on behalf of startups and provide rebates in the statutory fee for the filing of applications. For the expedited patent registration, the startups have to pay double the fees against thrice the amount for other companies. Under the faster clearance route, the application fee for individuals and startups is Rs 8,000, while for established and older companies it is about Rs 60,000. To avail of intellectual property rights-related benefits, a startup is required to obtain a Certificate of Recognition from DIPP.

The amended rules seek to cut the time taken for granting patents to two-and-a-half years from five to seven years immediately and to one-and-a-half years by March 2018.

http://timesofindia.indiatimes.com

Software patent rules

The Indian Patent Office has again issued guidelines on examination of computer-related inventions (CRIs) such as software programmes. The aim of this document is to provide guidelines for the examination of patent applications in the field of CRIs by the Indian Patent Office so as to further foster uniformity and consistency in the examination of such applications.

"The objective of this document is to bring out clarity in terms of exclusions expected under section 3(k) so that eligible applications of patents relating to CRIs can be examined speedily," the guidelines said. According to the Section 3(k) of the Indian Patents Act, a mathematical or business method or a computer programme *per se* or algorithms are not inventions. Various representations have been received regarding these guidelines which were first published in August 2015. Associations strongly opposed them, saying the norms were detrimental to the domestic IT sector.

The guidelines were then put in abeyance and re-issued in February last year. But associations again raised issues, after which an expert committee was set up to look into them. "After taking all the views into consideration, the guidelines for examination of CRI have been streamlined," the committee said.

http://www.thehindu.com

MALAYSIA

NANOVerify programme

NanoMalaysia Bhd, a company limited by guarantee under the Ministry of Science, Technology and Innovation, aims to make the NANOVerify Programme mandatory for nanotechnology product manufacturers by year-end. Chief Executive Officer, Dr Rezal Khairi Ahmad, said at the moment, NANOVerify, the first nanotechnology products/processes certification in Malaysia, was still regarded as a voluntary certification programme.

NANOVerify, launched in 2015, is a joint programme between Sirim QAS International Sdn Bhd and NanoMalaysia, which awards the NANOVerified mark for companies which apply for certification for the processes/products with claims of nano-elements in the range of 1-100 nanometre. Rezal said with the NANOVerified mark, it could also enable a certified company to increase its corporate image, gain customers" trust and subsequently, promote its sales. Likening NANOVerify to the halal certificate accredited by Malaysian Islamic Development Department (Jakim), he did not discount the possibility of the former emerging as a global benchmark for nano products in the future. "It is possible for it to follow in Jakim's footsteps which has successfully made its halal certificate widely recognised by Muslims all around the world within 20 years' time," he said.

Rezal, who is also a member of Asia Nano Forum, said currently, Malaysia has partnered with Taiwan, UK, Russia, Thailand and Iran to recognise each other's nano certificate. "All the six nations are the members of the forum and each has its own respective nano verification programmes. "We are now looking at how to standardise and create a cross-countries accepted nano certificate to open up a bigger market for each other," he said. He said Malaysia was expected to sign an agreement on nano verification with Iran next year, after a similar deal was inked with Taiwan late last year.

Recently, NanoMalaysia also announced that it would collaborate with a Russian company to set up an investment platform for nanotechnology businesses by year-end, which enabled Malaysia's manufactured nano products to penetrate the European market. Meanwhile, nano fertiliser provider, Microwell Bio Solutions Sdn Bhd, an indirect subsidiary of state-owned Johor Corp, is eyeing to expand its market share to 30 per cent in the country over the next five years.

http://www.dailyexpress.com.my

PHILIPPINES

Agricultural free patent act

The Senate has unleashed trillions of pesos worth of capital after it removed restrictions on agricultural free patents issued to farmers and make agricultural land titles immediately available for trade to help spur development of the agricultural sector. This followed the recent unanimous approval on third and final reading by the Upper House of Senate Bill No. 1454 ("Agricultural Free Patent Reform Act of 2017).

Sen. Richard J. Gordon, chairman of the Senate justice and human rights committee, sponsored and authored the measure, while Senators Paolo Benigno Aquino IV and Cynthia A. Villar served as co-authors. Gordon said that the bill sought to "make agricultural land titles immediately tradeable and bankable, provide farmer entrepreneurs the much-needed access to credit, and create capital to make investments, create jobs, increase productivity, and reduce poverty in rural areas."

"This bill will do much to address our unbalanced development and give agriculture a much-needed shot in the arm. Trillions (of pesos) in dead capital will be unleashed in the market in the form of credit and livelier investments," he said. Gordon said that the bill would primarily amend the Commonwealth-era Public Land Use Act and "abolish provisions that prevent banks from lending to farmers against agricultural patents."

Enacted in 1936, the Public Land Use Act entitles any Filipino who has "continuously occupied and cultivated, either by himself or through his predecessors in interest, a tract or tracts of agricultural public lands subject to disposition" to have an agricultural free patent issued to him, for the same land not exceeding 24 hectares.

http://news.mb.com.ph

REPUBLIC OF KOREA

R&D policy to focus on long-term 'vision'

The Republic of Korea is seeking to focus on a long-term vision that can raise the overall competitiveness of the country as it utilizes its research and development budget, the ICT ministry said. The plan was announced during a gathering of Ministry of Science and ICT policymakers and President Moon Jae-in.

In accordance with the goal, the ministry will now have the right to conduct a prefeasibility study related to the R&D budget, and be less dependent on the Ministry of Strategy and Finance. Also, both ministries will now have the right to decide the spending limit of the budget they control.

The decision comes amid growing criticism that the government's decision on allocating the R&D budget has been focused too much on generating profit in the short term instead of looking toward the future. Scientists and experts have argued that the budget should be allocated to support projects that can last for years. Also, the ICT ministry said it will map out detailed plans to create new jobs to capitalize on the changes as the world is transformed by the "fourth industrial revolution."

The Moon administration has been advancing various projects to deal with the latest revolutionary changes that is characterized by a fusion of cutting-edge technologies, such as big data and the Internet of Things. The government hopes that innovative ideas will become actual businesses through science and technology, while generating new opportunities by converging different industries.

The ministry will act as an "enabler" to the changes by drafting the detailed plan by the end of this year, an official said. The ministry said technologies, such as IoT and AI, are forecast to generate business opportunities and profits worth 560 trillion won ($484 billion) by 2030. "The ministry also launched a task force team so that core policies in science technology and the ICT sector can be implemented," ICT Minister You Young-min said. The ministry said it wants to push forward projects to help ordinary people understand the fourth industrial revolution so that they can get a better grasp of changes under way.

http://www.koreaherald.com

R&D spending gains 8%

Major Republic of Korean companies' spending on research and development rose nearly 8 percent on-year in the first half of the year, with tech giant Samsung Electronics Co. shelling out the most, a market tracker said. The combined R&D expenditures by the top 500 companies by sales stood at 20.9 trillion won ($18.5 billion) in the January-June period, up 7.8 percent from a year earlier, according to CEO Score. The tally covers only 217 companies out of the total, which have disclosed their R&D expenditures and exclude financial institutions.

The surveyed companies posted 782.5 trillion won in combined revenue in the first half, which increased 6.9 percent from the same period a year ago. Their total R&D spending took up 2.68 percent of sales, up 0.02 percentage point from a year earlier.

Samsung Electronics, the world's largest smartphone and memory chip maker, was the top R&D spender with 7.9 trillion won, followed by LG Electronics Inc. with 2 trillion won and chip giant SK hynix Inc. with 1.2 trillion won. NCsoft Corp., a South Korean online gamemaker, had the highest ratio of R&D spending to sales at 26 percent, trailed by the country's top Internet portal operator Naver Corp. with 25 percent and major drugmaker Hanmi Pharmaceutical Co. with 17 percent.

http://www.koreaherald.com

SINGAPORE

Initiatives to spur innovation

The Singapore government has announced three initiatives to spur innovation through tech transfer, talent development and smart capital. This includes the launch of an enhanced IP framework, the National IP Protocol, to encourage public agencies to work closely with enterprises, who can develop them into products and services that create economic and social value for Singapore.

The National IP Protocol will grant public agencies the flexibility to grant exclusive licences, non-exclusive licences, and even assign IP to industry – with the end-goal of facilitating commercialization. It will also continue building the government's community of IP experts skilled in taking publicly-funded innovations to market. The aim is to enhance the innovative capacity of the country's companies, and create more opportunities for public-private partnerships, including research spinouts, joint labs with industry and industry-academic consortia, according to Mr. Heng Swee Keat, the minister for finance for Singapore.

The National IP Protocol is part of the enabling technology transfer drive. As part of this, around US$12 million is to be invested into new cybersecurity projects aimed at strengthening Singapore's cybersecurity research and development (R&D) capabilities and developing cyber tools and technologies that can be readily adopted for public and industry use. Nine research projects have been awarded a total of US$11.6 million under a grant call by the National Cybersecurity R&D Program 1 to

develop capabilities in key technology areas to meet Singapore's cybersecurity needs. Another six projects have been awarded close to US$0.45 million under a seed grant call by the Singapore Cybersecurity Consortium to spur the commercialisation of cybersecurity technologies. These efforts aims to strengthen Singapore's cyber defences, and prepare its critical infrastructure and digital services against rising global cyber threats.

On the smart capital element, the National Research Foundation and Temasek are working on new commercial entities to build and invest in deep tech startups arising from research and development conducted in Singapore. This will complement other government support schemes for startups by connecting technical and academic innovators to smart capital.

On the cultivation of technopreneurial talent, the minister announced two initiatives by its tertiary institutions. The first is the National Lean LaunchPad, a national entrepreneurial training program for researchers adapted from the renowned i-Corps programme by the US National Science Foundation. Over 10 weeks, research scientists and engineers learn about the technology commercialization process, including customer discovery and market validation, by directly engaging with potential users and customers. These crucial skills in evidence-based validation and business model refinement will give researchers a better chance of developing their innovations into prototypes, real-world products and even companies. One example is a startup from NUS' pilot program, known as Cardiogenomics, which developed a cardiac risk assessment algorithm to predict coronary artery disease risk. Through the Lean LaunchPad experience, the team moved out of the lab to conduct interviews with patients, doctors and hospitals to test their business assumptions, leading them to re-define their customer segments and service delivery. The team has since developed the risk assessment service and test-kit CardioCAD, which is being used in some specialist clinics in Singapore.

The second initiative is called Pollinate, a collaboration between Ngee Ann Polytechnic, Singapore Polytechnic and Temasek Polytechnic. Pollinate is an incubator targeted at startups and campus teams from polytechnic students and their alumni who are ready for growth hacking and market adoption.

http://www.thenextsiliconvalley.com

SRI LANKA

First SME incubator and national policy

Sri Lanka unveiled its first ever SME incubator this week and vowed its third generation economic reforms shall be led by innovation, technology transfer and SMEs. "We need to change our traditional mindset and think anew," said Prime Minister Ranil Wickremesinghe in Makandura Industrial Zone of the Ministry of Industry and Commerce, addressing the launch event of Sri Lanka's first ever Incubator and Technology Transfer Centre (ITTC) for SMEs, a joint collaboration between National Enterprises Development Authority (NEDA), Wayamba University and supported by Malaysian Technology Development Cooperation.

"There are a little more than one million registered SMEs and MSMEs in Sri Lanka providing employment to three people on average" said Minister of Industry and Commerce Rishad Bathiudeen, and added: "We believe that SMEs are more than 70 percent of the total number of enterprises in the economy providing 45 percent of the employment and contributing to 52 percent of the Gross Domestic Production (GDP). NEDA has been taking many initiatives to develop this sector.

"The Commerce Ministry and NEDA have introduced the National SME Policy and National SME Authority and we are handing over the first National SME Policy the Prime Minister at this event. Work is also progressing on the first ever SME authority of Sri Lanka. This authority will facilitate the development of this sector. It will not be a regulator but will help the micro enterprises to grow to small scale and small enterprises to grow up to medium and larger enterprises. In fact NEDA has been actively working to develop not only SMEs but even works to create new SMEs.

"The SME incubator launched today is the first ever SME incubator in Sri Lanka and this is not just an incubator. It is also the first ever technology transfer centre for Sri Lankan SMEs. Sri Lanka's SME sector is active across many sectors but few are in tech. This centre will focus on helping to establish technology SMEs across the country. The Malaysian Technology Development Cooperation has given us their expertise and supported us to establish Sri Lanka's first SME incubator."

Chairman of NEDA Omar Khamil said that the incubator is part of the third generation economic reforms of the Unity Government. "As our Prime Minster said, our reforms are led by innovation, technology and SMEs" he said. The Ministry of Industry and Commerce has invested Rs 60 million for this pioneering tech incubator.

http://www.dailymirror.lk

VIET NAM

Technology transfer law

The National Assembly of Vietnam passed a revised law on Technology Transfer on June 19, covering regulations on technology transfer activities within Vietnam, from abroad into Vietnam and from Vietnam to foreign countries. It also specifies the rights and obligations of organisations and individuals engaged in technology transfer activities; technology appraisal of investment projects and technology transfer contracts. The law comes into effect on July 1, 2017.

Vietnam News reported Dr. Trần Văn Tùng, Deputy Minister of Science and Technology saying that the law aims to prevent the import of outdated technologies and encourage adoption of latest advances, so as to help Vietnamese enterprises increase their production capacity and enhance their competitiveness in both domestic and foreign markets.

The previous version of the Law on Technology Transfer came into effect in 2006. The amendments aim to develop supply

and boost demand in the science and technology markets. A national database on information technology will be established. Human resources will be trained for intermediary organisations. The draft also mentioned building technical infrastructure and supporting the operation of national technology transaction bureaus. It involves raising the capacity of organisations and individuals providing consultancy and brokerage services to exploit information on technology, intellectual property, results of scientific research and technological development at home and abroad.

VietNamNet Bridge highlighted the tax incentives to be received by firms importing machinery, equipment, materials, and means of transport into Vietnam that have yet to be produced in the country, and which will be directly used for research and development (R&D) activities, technological innovations, and technology transfer within Vietnam.

The law seeks to address barriers faced in the commercialisation of scientific research and technological development. It encourages research institutions and organisations to collect market information, understand societal needs and engage in joint research activities with enterprises. It proposes mechanisms of capital support, loan guarantee and interest rate support for enterprises investing in technical infrastructure for technology decoding. Under the law, policies covering the definition of ownership rights and the rights to use assets developed through scientific research, will be issued to support start-ups.

The law will strengthen the coordination among state management agencies in technology appraisal of investment projects and help in restricting and preventing the import of backward technology into Vietnam. A mechanism for compulsory registration of technology transfer, especially for the transfer of technology from abroad into Vietnam, would create a filter for state management agencies to inspect. The control is expected to help prevent fraud, duplication and wastage of resources.

http://www.opengovasia.com

SME support law approved

More than 83 per cent of members in Vietnam's National Assembly yesterday voted to approve a Law on Support for small and medium-sized enterprises (SMEs). The support will include access to credit, tax incentives, production space, technology application and transfer, market expansion, provision of information, consultancy and legal aid, and personnel development.

The law sets out SME principles, contents and resources, as well as the responsibilities of related agencies, organisations and individuals. It also covers micro-enterprises and operations with fewer than 200 salaried employees. To be covered, they must show total investment capital not exceeding 100 billion dong (Bt149 million) or total revenue from the previous year not exceeding 300 billion dong.

The law requires that support provided respects market rules and is in line with international treaties to which Vietnam is a signatory. The support given must be transparent in terms of content. The law will take effect next January 1.

http://www.nationmultimedia.com

ASEAN-EU Cooperation in Science, Technology and Innovation

SEA-EU-NET

The "SEA-EU-NET" project has been set up to expand scientific collaboration between Europe and Southeast Asia in a more strategic and coherent manner. The project increases the quality, quantity, profile and impact of bi-regional Science and Technology (S&T) cooperation between Southeast Asia and Europe. "SEA-EU-NET 2" is the second project that has been set up to expand scientific collaboration between Europe and Southeast Asia (SEA) in a more strategic and coherent manner. The four-year long project was launched in October 2012, involves 21 institutions from the two regions and is coordinated by the Project Management Agency at the German Aerospace Center (DLR). SEA-EU-NET 2 is deepening collaboration by:

- Continuing and intensifying the bi-regional dialogue between EU and ASEAN S&T policy makers on Senior Officials level as well as creating an annual exchange forum for researchers, innovation stakeholders, policy makers and private business to improve EU-SEA cooperation and exchange through the series of the ASEAN-EU Science, Technology and Innovation Days.
- Jointly tackling societal challenges in the fields of health, food security and safety, metrology as well as water management with relevance to both regions by organizing events, providing fellowships for SEA researchers and conducting studies on future collaboration potentials.
- Informing the Southeast Asian research community on the Horizon 2020 programme as well as increasing the level of Southeast Asian participation in Horizon 2020.
- Completing detailed analytical work on the current state of EU-SEA S&T relations and innovation potentials and developing recommendations on how to strengthen the relationship and feeding these into the official dialogue process.
- Extending the dialogue on EU-SEA S&T cooperation to include a wide range of stakeholders by connecting to already existing networks and dialogues.

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