

Technology Market Scan

INTERNATIONAL

World study on future R&D spending

Pressure on the public purse means research investment is slowing, according to the OECD. Government R&D budgets are in decline following 30 years of growth. A decline in public-backed science and technology research in a number of countries could pose a threat to innovation at a time when global challenges like climate change and ageing populations demand solutions, according to new OECD data.

The OECD Science, Technology and Innovation Outlook 2016 shows that spending on R&D in government and higher education institutions in OECD countries fell in 2014 for the first time since data collection began in 1981. R&D spending in government and higher education labs, most of which is provided by governments, began flattening out in 2010 following three decades of growth. While countries like Germany, Japan and Korea are spending more now on R&D than in 2000, as a share of total expenses, others including Australia, Finland, France, Italy, Spain, the UK and the US have reduced their R&D efforts.

Total government spending on R&D in the OECD area has been declining since 2009, following the global financial crisis. The “warning signs” for an even bigger fall off in government-backed science are there, the report says, with competing policy priorities such as state pensions, health and social care absorbing a growing share of public resources. On average across the OECD, public social expenditure rose from just over 15 per cent of GDP to almost 22 per cent of GDP between 1980 and 2014. At the same time, governments are taking in less money, with multinational enterprises taking advantage of opportunities to greatly reduce the taxes they pay. The use of legal arrangements that allow profits to be artificially shifted to low or no-tax locations “result in annual tax revenue losses conservatively estimated at between \$100 billion and \$240 billion,” the report says.

With public spending squeezed, governments are focussing more on policy tools that do not require additional public spending in the short term, particularly public procurement and tax incentives for R&D

and innovation. Between 2006 and 2013, the amount of tax revenues foregone for R&D has increased. In Belgium, France and the Netherlands, for instance, the share of government funds going to corporate R&D has increased faster than the share going to public research. Also partially making up for a drop off in government investment are charities, foundations and philanthropists, which funnel often-large donations from wealthy individuals into science. This spending boost is typically concentrated in fundamental and translational research areas, and is estimated to provide almost 30 per cent of annual research funds in leading US universities.

In labs, falling public investment and growing automation, is reducing the demand for new researchers. Job security in science is decreasing. Almost 90 per cent of PhD researchers in an EU survey, “Were in precarious working conditions with no or less-than-two-year contractual horizons,” the report says. “Training new researchers through the PhD and postdoc process will therefore need to broaden because many are discontinuing public R&D careers and moving into other parts of the economy.” Following gradual improvements in recent years, the public R&D workforce is becoming more female however, and the OECD sees more women gaining senior positions in the future.

The report notes a general shift in national research policy agendas towards environmental and societal challenges since the late 2000s. It also finds that countries are beginning to specialise more. The US has a clear policy orientation towards health R&D, which gets 24 per cent of its public R&D allocation in 2016.

The UK (22%), Luxembourg (18%), and Canada (17%), devote around a fifth of their R&D budgets to health issues, while Mexico (19%), Japan (11%) and Korea (9%) have prioritised energy R&D. While militaries have for many years been among the biggest investors in scientific research, the proportion of government R&D expenditure devoted to defence in most OECD countries has fallen substantially since the end of the Cold War and is currently at historical lows. This trend is slowly changing

in the EU, with Brussels recently unveiling a range of new defence R&D schemes.

<http://sciencebusiness.net>

ASIA-PACIFIC

CHINA

One million domestic patents registered

China’s central government is making moves to improve protection and use of intellectual property (IP), with figures showing that China has become the third country in the world to register one million active domestic patents, following only the United States and Japan. The State Council, China’s cabinet, issued new guidelines on the development of IP in the country, laying out the goals and major tasks for intellectual property rights (IPR) protection and usage as part of the current Five-Year Plan, which covers the period between last year and 2020.

Among the highlights, the guidelines call for the improvement of rules and regulations related to IPR in newly emerging fields, including e-commerce and big data. “The plan has set out a number of goals we are aiming to achieve in the development of IP by 2020, including an overall improvement to its protection, practical application and competitiveness,” said Gan Shaoning, Deputy Director of the State Intellectual Property Office. It is also expected that patent ownership will increase from 6.3 per 10,000 people in 2015 to 12 per 10,000 in 2020. Additionally, IP royalties earned abroad are expected to rise from 4.4 billion US dollars in 2015 to 10 billion dollars in 2020.

“China received 1.1 million patent applications in 2015, making us the first country in the world to surpass the one-million mark. We had one million active domestic patents last year, only after the United States and Japan. Our current IP regulations are providing the basic protection of innovation, but we still face two major challenges – we need more patents on core technologies and more diversified allocation of patents,” said Gong Yalin, another official with the State Intellectual Property Office.

China’s IP authorities say the country has established a complete and internation-

ally recognized legal system for IPR protection with Chinese characteristics, which incorporates both administrative and judicial protection. However, Gan admitted that there is room for improvement, noting that China has a short history with IPR. "China is willing to enhance IPR cooperation and share our experiences of development with our counterparts across the world. At the same time, we oppose unfounded accusations and abuse of IPR to exercise trade protectionism," said Gan.

Over the past five years, Chinese authorities have launched 14 sets of laws and regulations involving IPR, in addition to investigating 87,000 cases of patent infringement. During that same period, China has entered IPR-related agreements with 63 other countries.

<http://english.cctv.com>

R&D spending

China's investment in research and development (R&D) is expected to reach 1.54 trillion yuan (around 223 billion U.S. dollars) in 2016, accounting for 2.1 percent of GDP, according to Science and Technology Minister Wan Gang. Last year's R&D expenditure was estimated to increase by 9 percent from 2015, with over 78 percent of the spending coming from enterprises, Wan announced at a national work conference on science and technology. Wan said initial figures showed the value of technology transactions in China was anticipated to amount to more than 1.14 trillion yuan, and the scientific and technological progress contribution to the country's economic growth in 2016 had increased to 56.2 percent. He said that China was a world leader in invention patent applications, ranking third place, with over one million invention patents.

At the conference, Wan also announced that China had begun working on implementation plans of key projects that involved quantum communication and computers, brain science and brain-like research, deep sea stations, as well as space-ground integrated technology. Wang said more projects, including ones on deep earth exploration and artificial intelligence, were in the pipeline.

<http://news.xinhuanet.com>

INDIA

MSMEs to boost exports with policy support

India is one of the largest importers of conventional defence equipment and spends about 31.1% of its total defence budget on capital acquisitions and about 60% of its defence requirements being import dependent. Between 2006-10 and 2011-15 India's defence imports increased by almost 90 per cent and now India tops the global arms import list with 14% global share.

New Defence Procurement Procedure (DPP) 2016 has a focus on achieving the "Make in India" vision by according topmost priority to 'Buy Indian - IDDM (Indian Designed, Developed and Manufactured)' and 'Buy (Indian)' categories. India's Defence Minister Manohar Parrikar has set a target to raise India's defence exports to \$ 2 billion in the next two years which is currently over \$ 330 million. India's export vision in defence depends on the encouragement to MSMEs.

With world economy still reeling under slowdown, major international players in the defence sector are looking to cut costs. The time is ripe for the MSME sector to fill the gap not just in India but also globally with exports. MSMEs & SMEs already contribute significantly to defence manufacturing with around 10,000 quality products along in defence sector. Despite having reasonable resource capability, know-how and technical expertise, lack of clear policy had prevented their full exploitation in terms of defence exports. Separate defence exports incentives with increased budgetary allocations along with special subsidies in the Foreign Trade Policy can enthuse the industry with more MSMEs participating in the manufacturing of defence exports items from India.

The revised DPP has already stipulated giving desired thrust to the make in India initiative advocating for the strong alliance with MSMEs. However, this is not enough to fulfil India's export dream. The need of hour is working for the delivery of quality products matching the global defence requirements; the policy must encourage innovations along with the increased budget for R&D. The policy of maximizing indigenous production without well sup-

ported R&D policy back-up will not bring tangible results.

Transfer of technology along with the knowledge transfer will also play a huge role in optimization of defence exports. Export strategy has to clearly address the cause of transfer of technology and IPR concerns for seamless long term association with the partnering company or country. There is a need for greater coordination between different departments for streamlining the permissions and making it single window for smoother execution. Along with it there is also greater need for smoothening the window for exports. A successful interlocking set of relationships between the military, private sector, universities, and the political will is also needed.

Defence offset policy will contribute to enhanced defence exports. Offsets are also seen as a mechanism to develop indigenous manufacturing capability. They create jobs, enhance scientific and engineering skills, promote small local manufacturers, and will lead to enhanced exports. There are 193 countries which are member of UN and clearly we need to put serious marketing efforts to showcase our capabilities and strengths to attract more overseas customers and participants for co-manufacturing and buying of our products. Therefore, essentially we need to identify the potential markets for exports that would be most attractive and where we would have a definite edge, keeping in view our present capabilities and ability to deliver.

The good news is that opening of the defence sector for private sector participation is motivating foreign original equipment manufacturers to enter into strategic partnerships with Indian companies and develop the domestic industry for global competitiveness. Many big companies like Airbus (France), BAE India Systems (UK), Pilatus (Switzerland), Lockheed Martin (USA), Boeing India (USA), Raytheon (USA), Israel Aerospace Industries (Israel), Rafael Advanced Defence Systems Ltd. (Israel), Dassault Aviation SA (France) are ready to invest in India through strategic partnerships.

For boosting manufacturing and export of defence products from India, real time identification and work on the following

MALAYSIA

Govt to create innovation and creativity guide index

Prime Minister Datuk Seri Najib Razak said the government will create a creativity and innovation index as a guide to achieve National Transformation 2050 (TN50). He said the index would become one of the thrusts to empower Malaysia as one of the top 20 nations in the world in the long term. He pointed out that innovation and creativity were important for any organisation, company or nation so that it would not lag behind in the increasingly competitive world.

Giving an example, he said a giant telephone company at one time, Nokia had been overtaken and the telecommunication market was now being dominated by smartphones such as Apple, Samsung and Huawei. "This shows that only companies that adopt innovation will succeed in the increasingly competitive market. "The same goes for a government, we have to deliver government service in a good and more effective manner in the interest and prosperity of the people.

"In the present situation of financial constraints due to external factors, we have to accept the fact. We must not complain and point fingers, on the contrary, we should consider it as a challenge. How we can do more with less. Here lies our capability to enculture innovation in our organisation, I am confident we can do more with less," he said. He said this at the Prime Minister's Award for Innovation (AIPM) and Public Sector Innovation Award (AISA) night here. Also present was the Chief Secretary to the Government, Tan Sri Dr Ali Hamsa. Najib said the AIPM and AISA had encouraged the public sector to continue to develop innovation as a culture.

The Malacca State Government was announced as the AIPM winner and received a cash prize of RM1 million and a trophy, while second place went to the Social Security Organisation (Socso) which received a cash prize of RM300,000 and a certificate, and in third place was the Malaysian Armed Forces (ATM) which received RM200,000 and a certificate. At the event, Najib handed over the trophy and cheque to Melaka Chief Minister Datuk Seri Idris Haron.

area is needed; high cost and higher risk projects, high value and low volume products, international collaboration in design and development, high barrier to entry, issues of safety, long service life and criticality in terms of security concerns. The defence export policy at the base level must identify such products, markets and address pressing policy issues towards indigenous sustainable defence led exports.

<http://economictimes.indiatimes.com>

National research foundation to be set up

The Human Resources Development (HRD) Ministry sources said the National Research Foundation (NRF) will leverage more resources from the industry to support 500 collaborative research projects between Indian institutions and universities abroad. The HRD Ministry is working on a proposal to establish an agency with a seed grant of Rs 500 crore to bolster the country's weak research output. According to ministry sources, the National Research Foundation (NRF), in addition to its own seed grant, will leverage more resources from the industry to support 500 collaborative research projects between Indian institutions such as IITs, NITs, IISERs and reputed universities abroad.

India lags way behind internationally in terms of its spending on research. The country spends just 0.85 per cent of its Gross Domestic Product (GDP) on research as opposed to China which spends 2.10 per cent, USA 2.74 per cent, Japan 3.58 per cent and Israel, which contributes 4.11 per cent of its GDP to this cause.

As a result, only four patents are filed per million population in India. China files 396 patents per million people, South Korea files 2,962 and Japan files 2,250 patents. "NRF will be an umbrella body which will establish research priorities and provide 50 per cent of the funds required for research projects that fit the bill. The NRF will work with Science and Engineering Research Board and Indian Council of Medical Research and finance some of their research. It will also help the IMPRINT programme, which is facing financial problems at this moment," said a ministry official, who did not wish to be identified.

IMPRINT is a single window mechanism for funding India-specific research across IITs and other prestigious institutes, which was launched by the ministry with much fanfare last year. Of the 250-odd MoUs that were signed by different ministries with centrally funded educational institutions, only 60 have taken off. Many ministries haven't honoured their commitment of pitching half the funds required for research and technology development.

The NRF proposal was also pitched to the Prime Minister during the presentation made on January 13 by the group of secretaries working on education. The HRD Ministry is keen that the NRF is announced in the Union Budget that will be presented on February 1. Last year, Finance Minister Arun Jaitley had announced creation of a Higher Education Financing Agency (HEFA) with an initial capital base of Rs 1,000 crore which will leverage funds from the market and work to create infrastructure in top institutions like the IITs.

<http://indianexpress.com>

India Innovation Index launched

India's NITI Aayog CEO Amitabh Kant launched "India Innovation Index", the nation's first online innovation index portal which will rank states based on their innovations. Inaugurating the portal, he said that it will be a «first-of-its-kind online platform» where Global Innovation Index (GII) indicators and India-centric data from various states will be updated periodically. «This will be a one-stop data warehouse and will track progress on each indicator at the National level and the State level on real-time basis,» he said.

The access to the portal will be hosted on the NITI Aayog website. "Data collated on this portal will not only be used to ameliorate current data gaps with respect to the GI, but be the prime source for the India Innovation Index," a government statement said. The index was launched in collaboration with Department of Industrial Policy and Promotion (DIPP) and Confederation of Indian Industry (CII).

<http://economictimes.indiatimes.com>

For AISA 2016, the Public Service Department won the Information and Communication Technology Innovation Award while the Ampang Jaya Municipal Council won the Local Authorities Innovation Award. Meanwhile, the Kemaman District and Land Office was the sole winner of the District and Land Administration Innovation Award. Each winner for the AISA category wins a cash prize of RM150,000 for the first place, RM100,000 for second place and RM50,000 for the third place together with a trophy and certificate of appreciation each.

<http://www.themalaymailonline.com>

ICT usage by SMEs

Information Communications Technology (ICT) usage among Small Medium Enterprises (SMEs) reached 89 per cent last year. Deputy Minister of International Trade and Industry (Miti) Datuk Ahmad Maslan said the jump from just 27 per cent in 2010 was a positive development towards the full use of the digital economy by the 645,136 SMEs by 2019. "The digitisation of SMEs will make the industry more resilient through the enhancing of online trade, e-commerce and implementation of e-payment activities, a practice in line with the expansion of ICT at present," he added. Ahmad said this at a press conference after visiting IX Telecom Sdn Bhd, the top listed company among 50 SMEs in the Enterprise Award 50 (E50) organised by SME Corp Malaysia, last month.

The E50 is a prestigious award programme which recognises the achievements of Malaysian SMEs which are well positioned for the future. The 50 winners from among 1,355 companies are accorded four and five star ratings based on financial capabilities, operations and management competencies. Ahmad said Miti would continue to lead and assist SMEs in adopting the digital agenda through agencies as SME Corp and the Malaysian Digital Economy Malaysia (MDEC).

Ahmad said Miti also targets to increase the ICT use among SMEs to 95 per cent in 2017 before achieving full digitisation next year. He said this is possible through various initiatives and new incentives to be introduced, among them, alternative funding such as equity crowdfunding loans, SME Investment Partner, namely the

High Impact Programme 3 by SME Corp and Leading Entrepreneur Accelerator Platform with Bursa Malaysia. It includes enforcement of the SME Act apart from reducing the corporate tax rate to 18 per cent from 19 per cent for the first RM500,000 taxable income for SMEs, he added.

Meanwhile, IX Telecom Chief Executive Officer Noor Mohd Helmi Nong Hadzmi said the company, established in 2006, had promoted the digital economy early in its startup and even before being recognised and promoted last year. As a company that makes available Internet and ICT solutions, IX Telecom hopes to move concurrently with SME Corp in respect of government initiatives to assist SMEs in digitising the Malaysian economy," he added.

<http://www.bernama.com.my>

PHILIPPINES

Bill seeks to boost innovations, inventions, R&D

Albay Rep. Joey S. Salceda has filed in Congress House Bill 4581, which aims to boost the country's scientific innovations and inventions, research and development (R&D) toward social progress and global competitiveness. The measure projects a budget that could reach P672 billion by 2022. Salceda said the measure, titled Science for Change Program (S4CP) Act, gives special focus on "science- and-technology education, training, and services," and supports "indigenous, appropriate and self-reliant scientific and technological capabilities, and their application to the country's productive systems and national life."

S4CP is Salceda's fourth bill that seeks to pursue a strong science and technology (S&T) drive in the country, as an "essential tool for national development and progress". The three other bills involve the creation of a nuclear commission, revival of the Balik Scientist Program and the creation of metrology institute, to modernizes and standardize the country's measurement system. He had also filed an earlier bill that seeks to create the country's space agency.

Salceda said S4CP seeks to enhance and achieve a higher standard of S&T in the

country to "contribute to the development of the economy and society and toward the improvement of the nation's welfare by prescribing the basic policy requirements for the promotion of S&T, and comprehensively and systematically promoting policies for progress." He said S4CP consists of four components: Program Expansion in seven areas; New Programs in six areas; Grand Plan for Science and Technology; Human Resource Development; and Accelerated R&D Program for Capacity Building of Research and Development Institutions and Industrial Competitiveness.

The projected total R&D budget for 2017 is P5.8 billion. The bill proposes and estimates the R&D budget starting at P21 billion this year, doubling yearly over the five-year period, and will reach P672 billion in 2022. In the last six years, Salceda pointed out, the Philippines's scientific and technological indicators have improved significantly, based on the benchmark of the United Nations Educational, Scientific and Cultural Organization (Unesco).

The Unesco prescribes that for a developing country, there should be 380 researchers, scientists and engineers (RSEs) per million population, and the percentage of the GDP expenditure on research and development (GERD) should be 1 percent at least. The number of RSEs in the country has increased from 180 in 2009 to 270 in 2013, while the budget of the Department of Science and Technology (DOST) has increased from P5.7 billion in 2009 to P20.8 billion in 2017, with R&D budget allocation increasing from P1 billion in 2009 to P5.8 billion in 2017. Salceda noted that for the DOST HRD, the Philippine Science High School (PSHS) and the Science Education Institute (SEI) have significantly contributed to the RSEs. The PSHS increased the number of regional campuses from 11 in 2010 to 16 in 2016, with now one PSHS campus per region.

The number of students in PSHS has increased from 1,840 in 2009 to 8,083 in 2017, and is projected to hit 9,500 in 2021. The SEIs have, likewise, increased its freshman scholars intake, from 1,250 in 2010 to 5,590 in 2015. It has crafted the Grand Plan for S&T Human Resource Development that aims to enable the Philippines to achieve

380 RSEs by 2022, he added. The DOST, Salceda said, must endeavor to significantly accelerate S&T and Innovation in the country through massive increase in investment on S&T HRD and R&D through the S4CP.

The program, he stressed, must be provided sufficient budget to underwrite all R&D efforts for the five-year period, as follows: 1) Niche Centers in the Regions for R&D (NICER), P3.2 billion; 2) R&D Leadership Program (RDLead), P6 billion; 3) Collaborative R&D to Leverage PH Economy (CRADLE) for RDIs and Industry, P3.2 billion; 4) Business Innovation through S&T (BIST) for Industry, P14.25 billion (25 industry sectors, at P50 million to P100 million per sector x 75); and 5) S&T HRD (STRAND, STAR, SRCUR).

<http://www.businessmirror.com.ph>

REPUBLIC OF KOREA

Gov't focuses R&D on emerging industries

The government will scale back overall spending on research and development in technology next year, the Ministry of Trade, Industry and Energy said, but the portion taken up by research into emerging industries with growth potential will increase. The ministry plans to cut R&D expenditure from 3.45 trillion won (\$2.96 billion) in 2016 to 3.34 trillion in 2017, a 3.1 percent decrease. The budget cut is the result of restructuring that the ministry underwent this year to minimize spending on certain projects that it considered more customary than innovative.

The ministry's investment in the country's overall R&D spending continues to occupy a smaller piece of the pie, going from 18.3 percent in 2015 to 17.8 percent in 2016 and now falling to 17.2 percent next year. Even though the ministry's R&D spending has shrunk, it will be more focused. About 90 percent will go toward research meant to raise the nation's competitive edge in emerging industries, including robots, automated cars and renewable energy, while the rest will go toward legacy projects. The spending on innovative technology, around 3.06 trillion won, will be a 2.5 percent increase from this year. "We are looking for industry prospects that can lead Republic of Korea into the 'fourth industrial revolution,'" a ministry of-

official said. "The ministry also plans to extend support to companies with high-value technologies in the information services and design sectors, as they are expected to enhance the nation's competitiveness in exports."

The ministry has allocated 211.7 billion won to research in smart cars, robots and semiconductors, a 43.4 percent increase from this year's budget of 147.6 billion won. "Developing cutting-edge technology in these industries is vital since they will be growth engines for us in the near future," the official said. In renewable energy, the ministry has raised spending from 228.4 billion won to 243.2 billion, a 6.5 percent increase. The official said the industry will be key to abiding by the climate change accord that Korea signed in Paris earlier this year. A total of 39.9 billion won will be spent on R&D in smart grid technology. Six new sectors were added to the ministry's list for 2017. Most notably, it allocated 43.7 billion won to energy storage systems for the first time and set aside 27.3 billion won for experimental fusion reactors.

The Republic of Korea has made huge leaps in R&D spending in the past few years, according to OECD data. In 2000, the country spent just 2.18 percent of GDP on R&D, about 1.8 percent lower than the leader at the time, Israel. By 2014, Korea's R&D spending to GDP had jumped to 4.2 percent, outperforming runner-up Israel by 0.1 percent.

<http://mengnews.joins.com>

Commercialized SME technologies

According to Korea Institute for Industrial Economics & Trade (KIET), 96 percent of the SMEs that received government funding on research and development between 2012 and 2014 succeeded in technology development. However, only 48 percent of these technologies were actually applied to products that were sold on the market. This is far below other advanced economies, including Japan with 54 percent, the United States with 69 percent and the United Kingdom with 70 percent.

The KIET study said one of the biggest reasons was because of lack of government funding. The Korean government allocates

95 percent of its R&D budgets in technology development while only 5 percent is spent on commercializing the technologies into actual products.

The government R&D budget allocated for SMEs as of 2014 amounted to 2.4 trillion won (\$2.04 billion). But the Ministry of Trade, Industry and Energy only spends 63 billion won on commercializing the technologies including marketing and promotion. The situation is the same with the financial support provided by the Small Business Administration, which spends 800 billion won on technology development but only allocates 10 billion won on the commercialization.

The Korean government's spending on R&D has been increasing in recent years. In 2013 that budget amounted to 1.05 percent of the country's GDP, which is higher than the U.S. with 0.79 percent or Japan with 0.75 percent. But even without the government funding SMEs struggled in commercializing their products.

Among products that were sold in the market between 2012 and 2014 only 17.1 percent were new products or those that saw improvement through technological innovation. Of such products, 28.1 percent were by conglomerates. Midsize companies only accounted for 11.5 percent while small companies only accounted for 6.6 percent; indicating that the smaller the companies were the less new products or newly improved products were actually able to be sold on the market.

Other than the funding, the immature development of markets that could help such innovative products to be reached to consumers was another major obstacle that resulted in SMEs failing to apply their technologies to actual products. Also, the high costs of newly developed products were another reason technologies developed by SMEs failed to attract consumers, as well as the lack of experts to help market the products. The report noted a need for the government to come up with policies that could diversify the R&D budget so that it could also help create experts who can commercialize the products, create sales networks and even help these products launch overseas.

"The government, although it is aware of the importance in commercializing the technologies developed by SMEs, it has failed to implement the voices in the fields in its policies," said Yang Hyun-bong, senior researcher at KIET. "[The government] needs to create policies that would help convert technologies that could actually be implemented in business through systematical field researches." The researcher said even if the technology developed by SMEs is outstanding, it becomes a waste unless it actually commercializes.

<http://koreajoongangdaily.joins.com>

SRI LANKA

Innovation portfolio measuring

Work on Sri Lanka's long awaited national Innovation Index which is set to measure the island's innovation portfolio, began in Colombo. The World Intellectual Property Organization (WIPO) tasked with world Intellectual Property (IP) development says in a statement that many new IP projects have been earmarked for Colombo in future.

"In view of the rapidly expanding knowledge-driven global trade and economic activities, Intellectual Property (IP) has acquired a very important status," said Rishad Bathiudeen, minister of Industry and Commerce. He was addressing the inauguration of high profile National Level Innovation and Intellectual Property Policy Conference.

Among the International panellists at the event were Andrew Michael Ong, WIPO Asia Pacific regional director, Dr Richard S Cahoon, Cornell University visiting fellow, Dr. J.M. Swaminathan, Julius & Creasy senior partner, Yumiko Hamano, Columbia Maryland's ET Cube's intellectual property commercialisation specialist and Dr Sacha Wunsch-Vincent, WIPO senior economist.

Bathiudeen said, the IP System of a country greatly contributes to its various development activities such as promotion of national creativity, research, technology transfer, licensing, commercialization of goods and services, and proper implementation of industrial policies. "If we look at many developed economies practicing

high level of innovation such as Japan and Korea, we can see that intellectual property has become a key growth driver for them."

Their strong research and development are transformed into innovations and then patents are obtained. This trend is never more important at present times, he added. The applications received by the European Patent Office (EPO) in 2015 increased by a strong 5 percent from 2014. Filings under the Patent Cooperation Treaty (PCT) of the World Intellectual Property Organisation (WIPO) increased by 1.7 percent in 2015.

The statement says that Asia contributed significantly to these growth taking a strong 43 percent of 2015 global total. In 2014, Sri Lanka filed a total of 516 'Article 50' Patent applications. Costa Rica, Tunisia and Uzbekistan are the only countries that filed Article 50 Patent applications in a somewhat similar range to Sri Lanka.

WIPO Asia Pacific Regional Director Andrew Michael Ong said that innovation thrives in an environment of collaboration. "I see today a big gathering of players and actors of innovation systems in Sri Lanka. WIPO congratulates Sri Lanka for preparing this session. As a UN Agency, WIPO's mandate is to provide info and support IP policy. We have been working with Sri Lanka's NIPO and looking forward to take up key development projects in future as well."

<http://www.lankabusinessonline.com>

VIET NAM

Technology transfer law on debate

The eighth session of 14th National Assembly Standing Committee has turned its agenda toward discussing amendments to the Technology Transfer Law. Phan Xuan Dung, chairman of the National Assembly Committee for Science, Technology and Environment, proposed major draft law amendments to the committee. The amendments pertain to State policies on transfer technology, technology assessment in investment projects and solutions to encourage technology transfer and develop technology markets. According to Dung, Article 34 of the draft law gives priority to those using machines and equipment

that Viet Nam manufactured through public purchase. NA deputies argue that the article conflicts with World Trade Organisation regulations, banning protection of domestic products and those of Investment Law. The regulation is also said to discourage research, innovation and development of domestically-manufactured technology.

NA Chairwoman Nguyen Thi Kim Ngan demanded a reconsideration of Article 34, wanting to assure that it is "in accordance with Viet Nam's integration context and Competition Law". State assets given to scientific technology researchers must be presented to management agencies after research is finished. These agencies must responsibly managing them as State assets, Ngan said. Dung also called it necessary to assess and control imported technology to put an end to obsolete technology that causes pollution and affects human health. The move also aims to prevent impacts on Viet Nam's investment and business climate.

The committee agreed that technology assessment is a complicated process, especially the assessment of technology transferred from overseas. The assessment time of imported technology must be in accordance with the Investment Law and requires longer time. However, it must reduce unnecessary administrative procedures that cause obstacles for enterprises. The draft law also proposes the establishment of National Technology Innovation Fund which supports small and medium-sized enterprises to transfer technology and boost technology transfer serving agriculture, forestry and aquatic products in disadvantaged areas. NA Chairwoman Ngan rejected the fund, saying that it only expands the National Technology Renovation Fund, which is stated in hi-technology law. The Committee reached final conclusion that the draft law on technology transfer must be reviewed in accordance with Public Asset Management Law and avoid overlaps with laws on State budget, tax, investment, science-technology to ensure its feasibility. The law terminologies must also be reviewed to ensure the synchronisation with those stated in Law on Science and Technology.

<http://english.vietnamnet.vn>