ASIA-PACIFIC

BANGLADESH

New patents bill passed

The parliament has enacted the Bangladesh Patents Bill 2022, aiming to make a century-old patents law more time-befitting and safeguard intellectual property rights.The law, among others, extends the validity period of patents from 16 years to 20 years.The pre-existing patent and design law was enacted in 1911. In 2016, the law was divided into two parts, a patent law and a design law.

The bill states that any technological product would be patentable if it has something new in it.However, inventions, scientific theories and mathematical methods, business methods, rules or methods of performing purely mental work or sports, and any such computer programme would not be patent protected.

In addition to the need to prevent the commercial use of patents within the borders of Bangladesh in order to protect the public order and ethics, a number of other issues have been left out of the patent protection, including innovation.A registrar office will be there to issue or cancel patents of any single inventor or joint inventors of a technical innovation under the proposed law.

https://www.thedailystar.net

CHINA

Increase in invention patent volume

China has authorized more than 2.53 million invention patents over the past five years, with an average annual growth rate of 13.4 percent, according to the country's top intellectual property regulator. More than 27.7 million trademarks were registered in the same period, an average annual increase of 29 per cent, Shen Changyu, the head of the China National Intellectual Property Administration said at a press conference.

In 2021, the country authorized 696,000 invention patents, with an average ownership of high-value invention patents reaching 7.5 per 10,000 people, nearly twice, compared with the end of 2017, Shen said.He added that China also witnessed significant improvements in the efficiency of the use of intellectual property rights (IPR). The added value of patent-intensive industries reached 12.13 trillion yuan (about 1.88 trillion US dollars), up 5.8 per cent year on year, accounting for 11.97 per cent of the country's GDP.

According to China's 15-year plan (2021-2035) for IPR development, a clear target has been set: the added value of patent-intensive industries should account for 13 per cent of the GDP by 2025.

China has been committed to promoting the orderly development of internationalintellectual property rights(IPR) cooperation and competition. In 2021, Chinese companies filed 8,596 patent applications in countries along the Belt and Road, a year-on-year increase of 29.4 per cent, while these countries in turn applied for 25,000 invention patents in China, Shen said.

https://www.shine.cn

Spending on research and development

China's spending on research and development (R&D) hit a new high of 2.44 per cent of its gross domestic product (GDP) in 2021, an increase of 0.03 per cent from the previous year, official data showed.The country's total expenditure on R&D amounted to about 2.79 trillion yuan (about 441.13 billion US dollars) last year, an increase of14.2 per cent year-on-year, according to a report released by the National Bureau of Statistics (NBS).After deducting the price factors, the R&D spending of China in 2021 rose 9.4 per cent year-on-year, said the NBS. The investment in the basic research stood at 169.6 billion yuan last year, accounting for 6.09 per cent of the total R&D spending, an increase of0.08 per cent from the previous year, the data showed.

The growth of China's R&D spending is attributable to the steady recovery of the Chinese economy last year, the enhanced innovation drivers and also the improved incentive policies, said NBS statistician Zhang Qilong. The "Global Innovation Index 2021" released by the World Intellectual Property Organization showed that China has made continuous progress rising from the 14th rank in 2020 to the 12th rank in 2021 among 132 economies.China should further accelerate the implementation of science and technology policies and improve the mechanism for diversified investment to provide strong support for achieving high-level self-reliance in science and technology, Zhang said.

http://www.china.org.cn

Basic research spending

China's basic research spending hit 169.6 billion yuan (about 26.84 billion US dollars) in 2021, accounting for 6.09 per cent of the country's entire research and development expenditure, data from the Ministry of Science and Technology showed, as the country inches closer to achieving its goal of increasing the ratio to over 8 per cent by 2025 as a part of a broader push to accelerate its technological rise.

A policy framework spanning the whole process of scientific research has been established, with a two-pronged development path to basic research exploration that is both free exploration-motivated and target-oriented, He Defang, the deputy secretary-general of the ministry said at a press conference in Beijing while disclosing the reading for basic research outlays.With scientific questions refined based on the country's major demand, and strengthened reforms of the national natural science foundation, the policy framework supports basic research, application research, and the conversion of research results, he stated.

The country's basic research spending rose by 15.6per cent to 169.6 billion yuan, or 6.09 per cent of its total R&D commitments, an increase of0.08 per cent from the year before, according to the official data.The basic research outlays as a percentage of total R&D spending exceeded 6 per cent for the first time in 2020, after hovering around 5 per cent for multiple years.

Moreover, the country's whole-of-society R&D spending grew by 14.2 per cent year-on-year to 2.79 trillion yuan in 2021 over the past year, with the R&D intensity hitting 2.44 per cent, the Minister of Science and Technology, Wang Zhigang told the same media briefing, adding that the national innovation capacity ranking rose to No.12 globally, enabling a stellar start to the 14th Five-Year Plan (2021-25).

China has set a target of having its basic research spending account for over 8 per cent of the total R&D expenses by the end of the 14th Five-Year Plan.

the national high-tech zones, where a raft of world-class industrial clusters have been nurtured are home to roughly one-third of the country's high-tech firms, according to the Vice Minister of Science and Technology, Shao Xinyu, noting that these zones have shown strong risk resistance capacity.In 2021, 169 national high-tech zones posted over 48 trillion yuan in full-year operating income, an increase of about 12 per cent from the prior year, and their profits combined jumped roughly from 17 per cent to 4.2 trillion yuan, Shao said, citing preliminary figures.

The national high-tech zones, covering 0.1per cent of the country's land area, generate about 13 per cent of the GDP, he revealed.

In a sign of the business community's investment in research, Shao disclosed, businesses expand outside their home turf at a faster pace, having set up 2,000-plus research institutions overseas.In addition, over 200 sci-tech achievements were used to support the Beijing Winter Olympics in 2022, Wang said.

https://www.globaltimes.cn

Tax support for research and development investments

China further increased its tax support for R&D investments in 2022, expanding super deduction on the R&D expenditure to technology-based small and medium-sized enterprises (TSMEs) in an effort to encourage innovation, promote industrial upgrade, and strengthen the core competitiveness of the country.

As China endeavors to shift from being a low-end mass manufacturer to a high-end producer, the government has doubled down on encouraging targeted investments in research and development (R&D) and technological innovation. The ongoing technology confrontation with the US is another factor at play, impacting a wide range of segments from access to chips and other key input technologies and products. This has resulted in China labeling its technology sector as a strategic one and for which government support has increased.

In 2022, China further increased its tax support for R&D investments.According to the 2022 Government Work Report released on March 5 during the 2022 Two Sessions, it was declared that technology-based small and medium-sized enterprises (TSMEs) will be able to enjoy the super deduction policy on R&D expenditure, according to which 100 per cent of the R&D expenses will be additionally deducted from the taxable income amount, on the basis of actual deduction.

Previously, this policy was only applicable to manufacturing enterprises (except tobacco manufacturing). For other enterprises, including technology-based small and medium-sized enterprises (TSMEs) that are not in the manufacturing sector, only 75 per cent of the R&D expenses will be additionally deducted from the taxable income amount, on the basis of the actual deduction.

On 1 April 2022, the Ministry of Finance together with the State Taxation Administration and the Ministry of Science and Technology released an announcement that provides more details on the implementation of this policy.

https://www.china-briefing.com

FIJI

Blue Bond for funding ocean-centric projects

Fiji will launch its first Blue Bond to fund ocean-centric projects later this year. Speaking at the 7th Our Ocean conference, the Attorney-General, AiyazSayed-Khaiyum, said that the issuance would focus on raising capital market finance.

This will support projects in:

- blue shipping to reduce emissions, sustainable fisheries to expand aquaculture and protect natural fish stocks;
- a blue investment fund to provide affordable blue debt to non-government organizations in the ocean space; and
- sustainable waste management to build a second sanitary landfill and recycling facility in Fiji's Western Division.

"These are small steps on the journey to the blue economy we're building by 2030," he said."Much of this work will require partnerships, including in the Pacific to decarbonize our regional shipping sector.To deliver on these commitments, and open possibilities for ocean-generated energy in the future, we need significant and urgent expansions in the blue concessionary finance."

https://www.fijitimes.com

INDIA

Registration of more Indian patents than foreign

India has taken a step closer to the ambitious goal of being in the top 25 nations of Global Innovation Index, with another milestone of the number of domestic patent filing surpassing the number of international patents filed at the Indian patent office in the January-March quarter of the financial year 2022 for the first time in the last 11 years.

Of the total 19,796 patent applications filed in this period, 10,706 were filed by Indian applicants against 9,090 by non-Indian applicants, latest data from the Ministry of Commerce and Industry shows. Driven by a slew of efforts by the government to strengthen the Intellectual Property Rights (IPR) regime, foster innovation, and reduce compliance burden, the filing of patents increased by more than 50 per cent in the last seven years.

https://swarajyamag.com

One-stop space technology destination

The Telangana government will be launching a State-specific space tech framework, with the aim of establishing the State as a globally recognized one-stop destination for space technology. This event would be India's first-ever official event hosted on the Metaverse.

Telangana is already a leader in space technology with the presence of global companies, both mid-sized and startups, in the sector. This is evident from the fact that the State produced 30 per cent of parts used in the Mars Orbiter mission. Telangana also leads with the many micro small and medium enterprises (MSME)units of defence and has been a base for several defence institutes.

Space technology in particular has seen countries racing to establish their superiority. In this regard, the Telengana government will initiate a space technology research programme in partnership with the industry, academia, and other government agencies to catalyze innovations. This framework aims to encourage private partnerships in the space industry.

The government will also facilitate grants, suitable incentives, and infrastructure support to promote research and development to boost space technology innovation. The downstream space technology applications have the potential to directly impact citizens' lives and so the government would support pilots and proof-of-concept with the various government departments. The departments shall assist with on-ground implementation, provide mentorship, closely monitor the deployment to leverage the developed solution across the state and across these projects, and will leverage the application at the State level.

According to the draft policy, the state will offer space-tech fellowships to students from India and abroad, to work on high-end use cases in partnership with the government departments, and national and international research academic institutions. The fellowships shall focus on both the technical as well as business aspects in order to ignite the spirit of entrepreneurship.

The state would set up space technology innovation cohorts in partnership with industry and in-focus areas of the state viz. agriculture and insurance, urban planning and flood modelling, disaster management, forestry and environment, and internet and communication. These cohorts will be carefully mentored by both the space technology experts and target domain experts across industry, academia, and government agencies. The state will forge partnerships with prominent academic and research institutions globally to collaborate with the Telangana based universities and work towards applied space technology research and innovation.

The government will facilitate joint projects between researchers with both virtual collaborations and active exchange programs. With a focus to deliver socio-economic impact that may arise from the use of space technology, the State will also identify high impact use-cases and shall conduct grand challenges for the same. This initiative will allow innovators to work towards building applications that can alleviate various problems for the citizens. The best solutions shall be on-boarded on the proposed space tech accelerator to build a comprehensive business model, which will quickly go to the market and deploy the solutions at scale.

https://www.newindianexpress.com

Platform to empower startups from idea to unicorn

Tech giant Microsoft has launched its "Microsoft for Startups Founders Hub" in India. The aim is to empower startups' vision and fuel innovation to drive economic and societal progress for India and beyond. Microsoft for Startups Founders Hub is a new digital inclusive platform for startup founders in India. The platform offers over $300,000 worth of benefits and credits, giving startups free access to the technology, tools, and resources they need to build and run their businesses, from the most trusted, secure, open-source friendly and compliant cloud platform, to the best-in-class developer and productivity tools including GitHub Enterprise, Visual Studio Enterprise and Microsoft 365.

Beyond access to technology, Microsoft for Startups Founders Hub will empower entrepreneurs to innovate and grow by connecting them with mentors who will provide them with the industry, business, and technical support to guide them through their next business milestones. Microsoft is also partnering with innovative companies like OpenAI, a global leader in AI research and deployment, which develops AI systems such as GPT-3 and Codex to provide startups with exclusive benefits and discounts. In addition, the founders will also have access to Microsoft Learn for tailored startup-centric training and a variety of startup and unicorn programs to help them build connections with customers or industry veterans and accelerate their growth.

Microsoft for Startups Founders Hub is designed specifically for early-stage startups to lower the barriers of business creation, be a catalyst for entrepreneurship and innovation, and contribute to easing the journey from an idea to a unicorn. It is available to all startups in India, including those without third-party validation or funding, as part of Microsoft's commitment to empower startups' ambitions to drive innovation from India to the world.

https://www.business-standard.com

Medical device industry

The Indian medical device industry has the potential to touch $47 billion by the financial year 2030 four times its current size of $12 billion, says a KPMG report. The growth will be driven by increasing healthcare needs and the government's commitment to facilitate growth, it suggests.

The suggestion comes in the backdrop of a KPMG survey with the medical device industry leaders, which revealed that 90 percent of the respondents found lack of predictability in the policies acting as a major barrier to operating in the Indian market. Similarly, 85 per cent considered the pricing policy framework as a challenge, while 75 per cent found the

absence of an established supplier base and ecosystem as the problem. Broadly classified into five segments – electronics equipment, surgical instruments, implants, in vitro diagnostic devices, and consumables and disposables – the medical devices sector is 70-80 per cent import dependent in India. Import dependence is higher in high-end sophisticated device segments.

A collaborative effort of KPMG, Invest India, and Asia Pacific Medical Technology Association (APACMed), the report proposes multiple recommendations including predictable regulatory environment, harmonization of quality standards, a friendly public procurement policy, acreation of supplier ecosystem and a skilled talent pool and an establishment of "brand India" as a global hub for medical device manufacturing and innovation.

On changes on the regulatory front, the report called for a single central authority for medical device regulation and a long term roadmap for 10-15 years detailing the growth plans and implementation timelines. It wanted the Bureau of Indian Standards (BIS) to harmonize the Indian standards with the globally acceptable quality standards to enable domestic device makers attain global competitiveness.

The report suggests a series of measures to promote innovation and proposes an innovation linked incentive (ILI) scheme on the lines of the existing production linked incentive (PLI) scheme. The need for seed capital to facilitate the R&D on frugal innovation and the establishment of innovation parks were other suggestions.On building a supplier ecosystem, the report wanted the government to take necessary steps to create pay-per-user common testing facilities, machine tool centres, solid waste management units and warehouses.

The report however says that the government's production linked incentive (PLI) scheme, clusters of medical devices, parks, and improved regulatory approval processes are steps in the right direction to support domestic manufacturing.

https://www.fortuneindia.com

ISLAMIC REPUBLIC OF IRAN

Technological innovations for smart agriculture

The Biotechnology Development Council of the Vice Presidency for Science and Technology supports biotechnology projects and innovative ideas in the field of smart agriculture. Smart agriculture is the sustainability of food security focused on providing the agricultural industry with the infrastructure to leverage advanced technology – including big data, the cloud, and the internet of things (IoT) – for tracking, monitoring, automating, and analyzing operations.

With the participation of knowledge-based companies, smart agriculture is to be accelerated in the country, and innovative ideas and plans of individuals and companies applying to achieve this goal will be supported. Biotechnology Development Council called on all companies and teams with innovative ideas or plans that can help promote the concept of smart agriculture and food security to cooperate. Topics such as "Agriculture Management, Water and Soil Chemistry", "Pesticide Consumption Recommendation Platform", "Agriculture and Horticulture Management Platform", "Livestock and Poultry Management Platform" and "Aquaculture, Shrimp and Fisheries Management Platform" are given priority.

Iranian knowledge-based companies have so far produced 120 technological products in the field of agriculture, according to the Vice Presidency for Science and Technology. Some 30 knowledge-based companies are working to integrate the agricultural industry with innovation and creativity by producing 120 technological products so that the new generation of agriculture will be realized in the country.

This work covers everything from the cultivation to the harvest and sale of crops and can play an effective role in the development of the new generation of agriculture and the promotion of productivity and sustainability of crops.

https://www.tehrantimes.com

MALAYSIA

New Patents (Amendment) Act 2022

The Intellectual Property Corporation of Malaysia (MyIPO) has announced a Patents (Amendment) Act 2022 that comes into force on 18 March 2022. The amendments take into account Malaysia's commitments in the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement (on public health), the Regional Comprehensive Economic Partnership Agreement (RCEP), and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), as well as to comply with the provisions of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of the Patent Procedure.

Some of the notable key changes under the amended Act are as follows:

- deferment of substantive examination is no longer available, only deferment of *modified* substantive examination is available on the basis that the prescribed corresponding patent to be used for a modified substantive examination has not been granted;
- for post-grant amendment, the Registrar may require a patentee to file a request for re-examination of the amendment, or apatentee may make such a request on his own volition;
- any person may, within the prescribed period, make observations on any matter relating to the patentability of a patent application;
- certain deadlines can no longer be extended;
- it is now made clear that a divisional application cannot be filed once an application is granted, refused, deemed to be withdrawn, withdrawn, or abandoned;
- the period for reinstatement of a lapsed patent (due to non-payment of renewal fee) has been shortened to 12 months instead of 2 years from the date on which a notice of the lapsing of a patent is published; and

- any interested person may now initiate opposition proceedings within the prescribed period from the date of the publication of the grant of a patent by filing a notice of opposition.

https://www.spruson.com

Tax incentives for pharmaceutical manufacturers

Malaysia will continue to accept applications for tax incentives from pharmaceutical manufacturers until 31 December 2022, as the government looks to strengthen the country's position in the global pharmaceutical value chain and promote its healthcare industry as an attractive foreign investment destination. To be eligible, manufacturers must fulfill a variety of requirements ranging from collaborating with local higher learning institutions, incurring the first qualifying capital expenditure within a year of approval, hiring a minimum number of local employees, and undertaking research and development (R&D) activities, among others.

From January to September 2021, Malaysia's pharmaceutical industry recorded almost 400 million ringgit (about 94 million US dollars) in approved investment, surpassing the previous highest full-year figure in 2017. In addition, the exports of pharmaceutical products increased around 24 per cent in 2021,compared with2020, totaling 2.42 billion ringgit (about 570 million US dollars).

Both new and existing qualified manufacturers will benefit from the following tax incentives:

- An income tax rate of 0 to 10 per cent income tax rate for the first 10 years; and
- A 10 per cent income tax rate for the next 10 years.

https://www.aseanbriefing.com

PHILIPPINES

Incentives for green projects, research and development

A draft of the Strategic Investment Priority Plan (SIPP) retains all the priority industries listed in the 2020 plan, while creating two other tiers for "green" industries and research and development (R&D) activities, among others.

The draft, which was released to the media by the House Ways and Means Committee Chairman and Albay Rep., Jose Ma. Clemente S. Salceda, remains unsigned but appears to be set for implementation via executive order (EO). The draft that Mr. Salceda released appears to be set to go out initially as a memorandum order to be issued by the Office of the President (OP), over the signature of Executive Secretary Salvador C. Medialdea.

The latest version of SIPP will be a companion document to the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Law and seeks to identify the industries, to which the government hopes to attract investments by offering tax incentives.

According to the draft, Tier I consists of industries included in the 2020 version of the SIPP. The 2020 SIPP was carried over as a transitional list pending the release of a new SIPP that conforms to the provisions of theCorporate Recovery and Tax Incentives for Enterprises(CREATE), which took effect in April 2021.

Tier II was defined as activities "that are supportive of a competitive and resilient economy and will fill in gaps in the Philippines' industrial value chains, which are critical in promoting green ecosystems, ensuring a dependable health system, achieving robust self-reliance in defense systems, and transforming industrial and agricultural sectors to being modern, competitive, and resilient," according to the draft.

Tier III will include activities which are "supportive of the acceleration of the transformation of the economy primarily through the application of research and development (R&D) and attracting technology investments."The tie also proposes to incentivize equipment and parts manufacturing and services related to new technologies, as well as the commercialization of R&D.

A draft foreword to the SIPP that was to go out in the name of the Trade Secretary, Ramon M. Lopez, listed the Tier I projects as follows: various manufacturing activities including agro-processing projects; strategic services; healthcare and disaster risk reduction management services; mass housing; infrastructure and logistics projects including public-private partnerships entered into with local governments; innovation drivers, innovative business models, environment or climate-change-related projects; and energy.Tier I also incentivizes export activities and other projects granted incentives by special laws.

According to a draft message that was to go out in the name of the President, Rodrigo R. Duterte,whichwas attached to the draft SIPP, the President expressed hope that the plan will allow the Philippines to "attract more investments that will help propel economic recovery beyond the pre-pandemic levels while promoting sustainable inclusive growth, which will put us back on track towards upper-middle income country status in the long term."CREATE is the second package of the Comprehensive Tax Reform Program. It reduced the corporate income tax rate from 30 to 20 per cent, and made fiscal incentives more time-bound and performance-based.

https://www.bworldonline.com

Patent application fees waived for women-led ventures

The Intellectual Property Office of the Philippines (IPOPHL) and the Department of Trade and Industry (DTI) have teamed up for the implementation of a program that would waive fees for patent applications of women-led micro, small and medium enterprises (MSMEs).A memorandum of understanding was signed by IPOPHL director general, Rowel Barba, and Trade Secretary, Ramon Lopez, for the Juana Patent and the Juana Design Protection Incentive Program.

Ann Edillon, the head of the IPOPHL Enforcement Office, said the program would waive fees for the filing of invention, utility model and industrial design.It will also waive the first publication fee and substantive examination fee for invention.

She said the program would start on 15 April2022 and run until 30 April 2023 or until 50 inventions, 150 utility models, and 150 industrial design applications have been qualified and filed.

To be eligible for the program, the MSME must be a woman-led and engaged in business for at least one year.In addition, the applicants must be engaged in a business activity, which is considered as a part of the priority sectors by the DTI or by IPOPHL; registered with the DTI, Securities and Exchange Commission or Cooperative Development Agency; have total assets not over P100 million; and have a maximum of 20 employees.

The program is open only to those yet to avail a funding under the Republic Act 7459 or the Philippine Inventors and Inventions Incentive Act.Barba said the new program is the latest initiative of the IPOPHL to help micro, small and medium enterprises (MSMEs) in intellectual property (IP) registration.In 2017, the IPOPHL launched the Juana Make a Mark Program, which enables women-led micro, small and medium enterprises (MSMEs) to register their trademarks and make them more competitive.

https://www.philstar.com

REPUBLIC OF KOREA

Research and development spending of major firms

A major of the Republic of Korea's firms' spendings on research and development (R&D) expanded more than 8 per cent in 2021 though their sales weakened amid the coronavirus pandemic, a market tracker said.The combined R&D expenditures by 224 companies out of the country's top 500 companies by sales stood at 60.4 trillion won (about 48.1 billion US dollars) last year, an increase of8.2 per cent from a year earlier, according to the CEO Score.It represents the first time that major domestic firms' R&D spending has surpassed the 60 trillion-won mark.

In 2021, theincrease was seen as part of their efforts to secure future growth engines despite slackening sales in the wake of the prolonged COVID-19 outbreak.Their total R&D spending accounted for 3.2 per cent of sales in 2021, compared to3.5 per cent from a year earlier.

Samsung Electronics Co., the world's largest smartphone and memory chipmaker, was the top R&D spender with 22.6 trillion won in 2021, which was up from 21.2 trillion won, a year earlier. Samsung was followed by the chip behemoth SK hynix Inc. with 4.04 trillion won, and the home appliances giant LG Electronics Inc. with 3.6 trillion won.Samsung and nine other firms spent more than 1 trillion won in 2021 and 13 corporations posted R&D-to-sales ratios of 10 per cent or more.

Naver Corp., the country's largest internet portal operator, ranked at the top among the businesses in terms of the R&D-to-sales ratio with 24.3 per cent, trailed by the major pharmaceutical firm Celltrion Inc. with 22.5 per cent, and the mobile game developer Netmarble Corp. with 22.4 per cent.

http://koreabizwire.com

R&D spending as portion of GDP

The Republic of Korea placed second in research and development (R&D) spending as a portion of its gross domestic product (GDP) among major developed countries in 2020, but its rapid growth in recent years call for more policy support, a report said.

The Republic ofKorea's R&D expenditures reached 93.1 trillion won (75.4 billion US dollars) in 2020, accounting for 4.81 per cent of the GDP, according to a recent report by the Federation of Korean Industries (FKI), the country's largest business lobby. This made the Republic of Korea the biggest R&D spender among 36 out of 38 member countries of the Organization for Economic Cooperation and Development (OECD) trailing only Israel, whose R&D portion came to 5.44 per cent, the report said.

Chile was excluded from the finding due to limited available data. Costa Rica was also excluded from the report because it joined the OECD last year.

The report also found that the Republic ofKorea's R&D portion jumped 2.54 percentage points last year from 2001, a nearly fivefold increase compared with the OECD average of 0.53 percentage point. Large companies spent 71.3 trillion won, representing the bulk of the expenditures, while 21.6 trillion won was spent by the government or other public entities.The R&D spending, however, has remained stalled at the average of around 7.5-8.0 per cent in the past decade, retreating from the average 11.4 per cent for 2001-2010.

In 2018, the Republic ofKorea ranked far below the OECD average in earnings from intellectual property royalties versus R&D spending, with the percentage coming to 9.9 per cent, compared with the OECD's 27.7 per cent.

http://www.koreaherald.com

Trade deficit in Intellectual Property rights in 2021

The Republic ofKorea's deficit in the trade of intellectual property rights touched a record low in 2021 on increased exports of cultural content, central bank data showed.The nation's deficit in the intellectual property account stood at $30 million last year, compared to a $2.02 billion shortfall in 2020, according to a preliminary data from the Bank of Korea (BOK).

The exports of products and services subject to intellectual property right payments came to $20.86 billion, an increase from $15.42 billion from a year earlier, with imports rising to $20.89 billion from $17.44 billion.It marks the lowest red ink in the trade of intellectual property rights since data tracking began in 2010.

The central bank said that the tumble in the deficit came as the country posted a big surplus in copyright trade, thanks to the overseas popularity of the boy group BTS, Korean dramas and movies, and webtoons.

The Republic ofKorea registered the largest surplus of $750 million in the trade of cultural and art copyrights, an increase from $70 million, compared with a year earlier. The surplus in the trade of the copyrights

related to software and research and development also surged to $1.7 billion from $1.57 billion over the cited period.

By country, the Republic ofKorea chalked up a shortfall of $3.03 billion in the trade of intellectual property rights with the United States last year. It also posted a shortfall of $990 million with Britain and a deficit of $580 million with Japan. The Republic ofKorea posted a trade surplus of $2.58 billion in intellectual property rights with China in 2021, down slightly from a $2.59 billion surplus a year earlier.

http://www.koreaherald.com

SINGAPORE

Plant-based food innovation

The Singapore Institute of Technology (SIT) and a leading agricultural supply chain company recently jointly launched a research programme to accelerate Singapore's capabilities in enabling a sustainable and efficient supply of plant-based food alternatives.

This partnership will see a first-of-its-kind research programme that is aimed at leveraging science and technology to improve the extraction of proteins from plants to maximize protein quality, yield and functionality, and to render the extraction process greener. To enable this, the four-year collaboration will see the establishment of Singapore's first Research & Development (R&D) platform focused on extraction and processing capabilities, with the Agrocorpbeing the university's anchor partner.

Specifically, the research programme seeks to improve plant protein quality by tweaking the protein recovery process to minimize their denaturation, and validating the proteins' functionality in the food products developed. Traditional methods of extraction are often marked by the challenge of "high cost, low functionality," – where drawbacks include low protein quality, intensive use of water, and high cost of scaling. Understanding how ingredient extraction processes can be achieved using greener methods can decrease cost curves, facilitate clean labelling of food products, and enhance quality.

The joint R&D effort will feature advanced food technology and methods to achieve the extraction of plant-based proteins under greener conditions and upcycling of agri-waste. Amongst the technology used is the *Pulsed Electric Field*, a method of using short electrical impulses of high voltage to permeabilize the plant cell membranes under non-thermal conditions; and enzymatic-based release of proteins from plants. The findings from the research programme will be used to optimize Agrocorp's ongoing product development process and enhance the quality of their plant-based products for consumers.

https://opengovasia.com

National consortium for clinical research, innovation

Singapore has brought together five Ministry of Health-led research and development, clinical translation, and service initiatives under one umbrella group called the Consortium for Clinical Research and Innovation (CRIS).This comprises the Singapore Clinical Research Institute (SCRI), the National Health Innovation Centre Singapore (NHIC), Advanced Cell Therapy and Research Institute Singapore (ACTRIS), Precision Health Research Singapore (PRECISE), and Singapore Translational Cancer Consortium (STCC).

Based on a press statement, CRIS aims to "build networks and collaborations for regional clinical trials, perform cost-effectiveness assessments for healthcare interventions, and foster industry engagement" to fulfill its vision of nurturing and building capabilities and innovation in clinical research and translation for Singapore.

Dr Danny Soon, the consortium's CEO, said it was just about time to bring together the said government initiatives under one roof as Singapore's basic science capabilities and talent base have begun to mature with research initiatives gaining ground. CRIS, he said, seeks to ensure a "unity of mission" across their respective programmes and synergize their capabilities, scientific resources, and industry engagement."This way, we stay relevant and aligned to the needs of Singapore patients, healthcare system, and researchers, and build long-term sustainability for these efforts," he added.

https://www.healthcareitnews.com

THAILAND

Fast-track patent approval

The Intellectual Property Department is set to create a fast-track system for patent registration to facilitate Thai inventors, starting with a pilot project on inventions related to health care, including medicines, treatments, care and food. VuttikraiLeewiraphan, the department's director-general, said the new system will increase competitiveness in innovation and intellectual property as well as create more employment and income for Thais and entrepreneurs.

Currently, the patent applications and registrations take about 55 months from the filing date until the patent is granted. Under the fast-track system, the consideration period will be cut by half to 24-36 months.

From the start of the Covid-19 pandemic, there have been 225 Thai patents and petty patent applications related to the prevention and treatment of the coronavirus, comprising 61 invention patent applications and 164 petty patent applications.

There are three patent types available in Thailand: patent for invention, petty patent, and design patent (also known as industrial design).

The invention patent has the strictest requirements to qualify for protection, followed by the petty patent, then the design patent.The invention patent protection period is 20 years, while the protection period for the design and petty patents is 10 years.

https://www.bangkokpost.com

UZBEKISTAN

Law on Geographical Indications

Uzbekistan's first law on Geographical Indications was adopted on 21 December 2021 and entered into force on 3 March

2022, introducing the rules and grounds for registration and use of the geographical indications (GIs).The law defines a geographical indication (GI) as a designation that identifies the goods as originating from a certain geographical area, if their quality, reputation, and other characteristics can be essentially attributed to their geographical origin. Unlike appellations of origin (AOs), for which all products' stages should take place in the specified geographical location, for GIs, it is acceptable that at least one stage of production, which substantially influences the quality, reputation or the characteristics of a product, takes place in the territory in question.

While the Law on Trademarks, Service Marks, and Appellations of Origin provides for the registration and use of AOs, the new GI law provides for the registration of new GIs and the registration of the right to use the existing GIs. The GI law also provides for the registration of foreign GIs – the procedure is the same as for national GIs.

The applicant may be a group of natural and/or legal persons (the applicant may also be one person, if there are no other applicants or if the other applicants do not express a desire to apply) located in a certain geographical area, whose name is used to designate the product they produce. The applicant may also be a non-governmental organization or a local executive body located in that area.

The application for the registration of a GI or the right to use an existing GI should be filed with the Uzbek Intellectual Property Office (IPO) and must contain the following:

1. Representation/image of the claimed designation;
2. Product description;
3. The production location within the geographical area;
4. The description of the specific product's characteristics and its link with the production area, climate, craft, etc.;
5. The names and the locations of the competent inspection bodies or laboratories certifying aproduct's compliance with the declared, specific characteristics, if provided for in the administrative instructions of the state service for GI registration;
6. A proof of payment of the official fee; approximately EUR 510 (570 US dollars);
7. Documents confirming that anapplicant is located in a certain geographical area and that the applicant produces the goods with characteristics essentially linked to that geographical area, if the applicant's production is based in Uzbekistan;
8. Documents confirming an applicant's right to use the GI in the country of origin, if the applicant's production is based outside of Uzbekistan;
9. In case of collective filing, a document confirming the applicable characteristics of a product being produced;
10. For applicants claiming the right to use a registered GI, documents confirming that the applicant is a manufacturer of goods with the characteristics declared in the IPO's registry.

While new GI registrations are valid for an unlimited period of time, certificates granting the right to use the already registered GIs are valid for 10 years from the application filing date, and can be extended for an unlimited number of an additional 10-year periods.

The GI registration process takes less than two months. The formal examination is carried out within 15 days from the application filing date and substantive examination within one month from the formal examination decision date.

During substantive examination, the IPO does not only check if the claimed designation is in conflict with registered AOs and GIs, but also if it is in conflict with registered trademarks, service marks, plant varieties, animal breeds, or any mark which could cause public confusion regarding the product and its origin. Interested parties can, therefore, invalidate a GI registration based on both absolute and relative grounds.

The registration of a GI or of a right to use a GI does not grant exclusive rights. It is worth mentioning that the GI law has no provisions regarding penalties for the breach of the law. In contrast, the Law on Trademarks, Service Marks and Appellations of Origin includes monetary fines ranging from EUR 2,130 (2,370 US dollars) to EUR 4,255 (4,737 US dollars).

As of today, the Uzbek IPO online registry includes four active AO registrations. Following the adoption of the new GI law, it is expected that more geographically related signs and names will be registered, as the GI registration procedure is less time consuming and less rigid regarding the place of production requirement.

https://www.lexology.com

VIET NAM

Plan to develop digital government, economy

In Viet Nam, the two important goals in the National Committee on Digital Transformation's digitization plan for 2022 are to have 85 per cent of the population own a smartphone and 75 per cnt of all households to be connected to a broadband internet. The plan, which was promulgated by the Prime Minister and the committee's chairman, Pham Minh Chinh, outlines goals for digital infrastructure, e-government, and the digital economy and society.

According to a press release, to build a digital government, the goal for 2022is to increase the rate of online public services to 80 per cent, the rate of the administrative procedures dossiers processed online to 50 per cent, and the rate of the digitization of dossiers and results of the administrative procedures to 100 per cent. Also, the rate of reports made online by the state administrative agencies to 50 per cent as well as the rate of state agencies providing full open data by category to 50 per cent.

Regarding the development of a digital economy and society, the targets include the percentage of small and medium-sized enterprises using digital platforms to reach 30 per cent, the rate of enterprises using e-invoices to reach 100 per cent, and

the rate of enterprises using e-contracts to be 50 per cent. The government wants the proportion of e-commerce revenue in the total retail sales to reach 7 per cent, and the percentage of people over15 years of age with transaction accounts at banks or other authorized organizations to reach 65-70per cent.

Under the plan, there are 18 tasks assigned to the committee's members, which include universalizing smartphones, electronic identities, and broadband fiber optic cables. It also aims to enhance network information safety and security, develop electronic health records, support online teaching, and digitally transform small and medium-sized enterprises.

Other goals involve comprehensively promoting digital payment methods, boosting e-commerce and digital commerce, focusing on smart urban planning, and increasing spending on scientific research for digital transformation. It aims to operationalize an agricultural database and create a national database on cadres, civil servants, and public employees. The government aims for the total amount of non-cash payments of tuition and hospital fees to reach at least 50 per cent by the end of 2022.

The country is also looking to improve telecommunications infrastructure and digital content services. Earlier, OpenGov Asia reported that at the recent World Mobile Broadband and ICT Summit, an official from the Ministry of Information and Communications (MIC) said that the government wants to master broadband infrastructure, 5G equipment infrastructure, and made-in-Viet-Nam technology platforms.

According to statistics of the MIC's Authority of Telecommunications, in 2021, VietNam had 70.9 million mobile broadband subscribers, accounting for 57.23 per cent of the total mobile subscribers and representing an increase of more than 4 per cent compared to 2020. In 2022, the authority aims to have 85 per cent mobile broadband subscribers per 100 people. As of October 2021, the country had more than 18.8 million fixed broadband internet subscribers. Around the same time, Vietnam had 71 million mobile broadband subscribers, with 89.81 per cent prepaid and 10.19 per cent postpaid.

https://opengovasia.com

Progress on COP26 commitments

Following Vietnam's commitment to net-zero carbon emissions at the Conference of the Parties (COP26), the government released *Notice No 30/TB-VPCP* on guidance on implementation. Vietnam's Prime Minister, Pham Minh Chinh, held a meeting with the National Streeting Committee and urged ministries to develop programs and plans to implement Vietnam's commitments at COP 26.

Particularly, the Notice highlights eight areas that the government agencies will be required to focus on:

- Transitioning from fossil fuels to green/clean renewable energy sources;
- Reduction of greenhouse gas emissions;
- Reduction of methane, particularly in agriculture and waste management;
- Use of electric vehicles (EVs);
- Sustainable management including using forests and increasing trees to offset carbon emissions;
- R&D for construction material usage and urban development for sustainable development;
- PR campaigns for public and businesses to increased awareness and support for the government's COP26 commitments; and
- Step up the adoption of a digital economy to address climate change.

With this, the Ministry of Industry and Trade (MoIT), the Ministry of National Resources and Environment (MONRE), and relevant government agencies are expected to release further guidance on the implementation.

While the revised Law on the environment will go to some degree to mitigate greenhouse gas emissions and is consistent with the COP26, the implementation will be the key. Low or minimal emissions will play a major role if Viet Nam wants to change from fossil fuels to low emissions.To this effect, the government is likely to issue a new decree on mitigating greenhouse gases, while protecting the ozone layer, as well as setting up committees to promote laws and policies, admin reforms, and so on for a climate-proof infrastructure and renewable energy.The government also plans to complete and upgrade the National Strategy on Climate Change including net-zero carbon emissions and reducing emissions of methane gas.

Viet Nam has asked for international assistance in meeting its climate change commitment. To this effect, the US is funding US $36 million in Viet Nam's Low Emission Energy Program. Under this project, USAID will help Vietnam transform towards clean energy using advanced technologies while improving energy performance and increasing competition in the energy sector.

To achieve net-zerocarbon emissions, Viet Nam will need to reduce carbon emissions, reduce pollution, and implement higher energy optimization in practical terms. For example, a factory in Ho Chi Minh City's District 9, has already started implementing these measures even before Viet Nam signed a commitment. It installed a solar power system on the roofs of factories, rearranged factory corridors to allow for light, as well as used lights with higher luminescence efficiency.

Vietnam's Power Development Plan 8 (PDP8) for 2021 with a vision till 2045 was supposed to be released in 2020. The initial drafts included a plan to incorporate renewable energy. However, another draft raised the country's coal capacity to 40GW by 2030.

After PM Chinh's commitment at the COP26, sources indicate that the current Power Development Plan 8 (PDP8) draft is further being revised to reflect Viet Nam's commitment. In addition, to deal with overcapacity, the Deputy Prime Minister, Le Van Thanh, has asked relevant government agencies to reduce solar energy capacity and increase off-shore wind capacity to increase efficiency.

https://www.vietnam-briefing.com