



**SINGAPORE IP  
STRATEGY 2030**  
REPORT

Global Intangible Asset  
Value is at an all-time high  
of **US\$65.7 trillion**

Source: Brand Finance 2020

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Our Future with IP



# FUTURE WITH IP

Foreword by:  
Minister Indranee Rajah  
and Minister Edwin Tong



The global economy is increasingly driven by innovation and intangible assets (IA). We see rapid advancements across diverse technology fields, including artificial intelligence and green and medical technologies, as well as digitalisation. This will impact how we live and do business.

The Singapore IP Strategy 2030 (SIPS 2030) will position Singapore as a global hub for IA and Intellectual Property (IP) activities to capture new opportunities.

Our plans will strengthen Singapore's IA/IP regime, enable enterprises to more effectively use their IA/IP, and create good job opportunities for Singaporeans.

## DEVELOPING A GLOBAL HUB FOR IA/IP

Global IA value today stands at an all-time high of more than US\$65 trillion, surpassing the value of tangible assets. SIPS 2030 will help ensure that Singapore remains a conducive environment for businesses to protect, manage, and transact their IA/IP.

Singapore is recognised globally for our strong rule of law and IP protection environment. SIPS 2030 will build upon the strong foundation set by the 2013 IP Hub Master Plan. It will see more coordinated IA/IP initiatives at the whole-of-government level, a world-class IA/IP regime that stays ahead of technological advancements, and wider global linkages and cooperation programmes.

This will enhance the "trust premium" that is highly valued by global companies, which makes Singapore an attractive destination of choice for foreign investments.



"SIPS 2030 will also focus on helping enterprises accelerate business growth, as they tap on the unrealised potential of their IA/IP."

Minister  
Indranee Rajah

Minister in the Prime Minister's Office,  
Second Minister for Finance and Second  
Minister for National Development

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SINGAPORE IP STRATEGY  
2030 REPORT

"While traditionally seen as a legal or technical function, IA/IP management is increasingly becoming an essential part of strategic management decisions as it impacts shareholder value."

Minister  
Edwin Tong

Minister for Culture, Community and  
Youth and Second Minister for Law



## ENABLING INNOVATIVE ENTERPRISES TO USE THEIR IA/IP FOR GROWTH

These efforts include holistic IA/IP enterprise initiatives; public-private partnership programmes to enhance IA/IP awareness, protection, and commercialisation; and enhanced IA/IP services to make it easier and faster for enterprises to manage their IA/IP.

For example, as the arts and entertainment sectors pivot to digital platforms, it is important that they are well-supported in navigating unfamiliar IA/IP issues in this space.

We are also looking at IA/IP monetisation, collateralisation, and financing to help enterprises unlock IA/IP value to generate cashflow. Several initiatives, including a focus on valuation, will help build our ecosystem for IA/IP financing and transactions, and secure Singapore's continued relevance as a key financial hub.

## CREATING OPPORTUNITIES THROUGH IA/IP SKILLS

As we attract more IA/IP-intensive companies to Singapore and our local companies move up the value chain, IA/IP management skills will become necessary to help enterprises maximise their IA/IP.

IA/IP management has far-reaching effects on an enterprise's product development, go-to-market decisions, and strategic partnerships, with implications for its bottom line.

Through SIPS 2030, we will nurture an IA/IP-savvy workforce, equip leaders with knowledge and skills to optimise their organisations' IA/IP, as well as develop national standards for IA/IP management.

## CHARTING OUR FUTURE WITH IP

SIPS 2030 requires a concerted effort across the public-private sectors to succeed. It will guide our plans over the next ten years even as we stand ready to adjust as the operating environment evolves. It will also support Singaporeans' aspirations to become more digitally resilient, a key theme that emerged during the series of Emerging Stronger Conversations held over the past year.

We want to thank all our partners for putting this plan together. We look forward to working with all our stakeholders to make Singapore a global hub for IA/IP.

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FOREWORD

# EXECUTIVE SUMMARY

Since the IP Hub Master Plan was launched in 2013, Singapore has made good progress in building an IP ecosystem that supports innovation activities and is well-connected to global markets.

The global economy has also evolved significantly. Intangible assets (IA) and IP have become key drivers of economic growth. This is due to growing expenditure on Research and Development (R&D), changing business models, and the acceleration of digitalisation. Asia (and ASEAN in particular) has continued its upward growth trajectory, leading to greater innovation capacity and increased trade and collaboration across the region.

There is an opportunity to build on Singapore's firm foundations as a legal, financial, and business hub and leverage IA/IP to fuel the next bound of value creation and growth.

Opportunity for Singapore to build on our firm foundations as a legal, financial, and modern services centre and leverage IA/IP to fuel the next bound of value creation and growth.

The objectives of the Singapore IP Strategy 2030 (SIPS 2030) are -



Grow Singapore as a global hub for IA/IP activities and transactions.

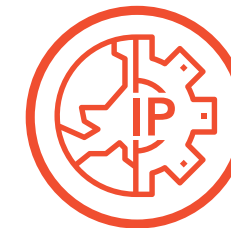


Maintain Singapore's top-ranked IA/IP regime to instil confidence in investors and innovators.



SIPS 2030 comprises three inter-linked thrusts.

## STRENGTHEN SINGAPORE'S POSITION AS A GLOBAL HUB FOR IA/IP



**Ensure a world-class and forward-looking IA/IP regime.**

By proactively reviewing policies to support emerging areas such as artificial intelligence and big data, and leveraging technology to better serve our customers.



**Develop Singapore as a node for ASEAN and the world.**

By facilitating regional interoperability of IP systems and strengthening the connectivity between ASEAN and the rest of the world. We will enable investors to protect their IP more expediently in multiple markets through programmes such as the ASEAN Patent Examination Cooperation.



**Position Singapore as a choice location for international IP dispute resolution.**

By growing local expertise through working with law schools and professional training providers and setting up a one-stop resource portal on IP dispute resolution.

## ATTRACT AND GROW INNOVATIVE ENTERPRISES USING IA/IP



### Enhance enterprise IA/IP awareness and management capabilities.

Through wider and deeper engagements and a new national online platform to facilitate enterprises' access to a wide range of IA/IP services.



### Derive greater value from R&D investments and IA/IP.

By working with enterprises to more effectively translate the outputs of R&D, including the resulting IA/IP, to market and society. We will also work closely with industry to help enterprises to raise capital using their IA/IP.



### Build a credible and trusted IA/IP valuation ecosystem.

Through the development of IA/IP valuation and disclosure guidelines and building a pool of qualified IA/IP valuation professionals.

We will work with enterprises to more effectively translate the outputs of R&D, including the resulting IA/IP, to market and society.

## DEVELOP GOOD JOBS AND VALUABLE SKILLS IN IA/IP



### Maintain the competitiveness of our workforce.

Through holistic IA/IP training and education programmes that are specially curated to meet the learning needs of working adults and tertiary students.



### Drive adoption of IA/IP skills and competencies.

By working closely with key industry partners to integrate such skills into innovation-related job roles across different sectors.



### Bolster Singapore's reputation for quality IA/IP skills.

By developing and promoting international recognition of a national standard for IA/IP management.

# FUTURE WITH IP

SIPS 2030 will help to establish Singapore as a global-Asia node of technology, innovation, and enterprise, as well as support our wider Research, Innovation and Enterprise 2025 objectives. IA/IP will also play an important role in Singapore's economic and industry transformation as set out by the Future Economy Council and Emerging Stronger Taskforce.

The successful implementation of SIPS 2030 requires the collective efforts and energy of all stakeholders. We are excited to share our plans with you. Let us work together to realise a brighter, IA/IP-driven, future for Singapore.

CHAPTER

1

## INTRODUCTION

# BUILDING ON THE 2013 IP HUB MASTER PLAN AND 2017 UPDATE

In April 2013, the Government published the IP Hub Master Plan, to develop Singapore as a Global IP Hub in Asia. The IP Hub Master Plan comprised three Strategic Outcomes.



Singapore as a hub for **IP Transactions and Management**



Singapore as a hub for **Quality IP Filings**



Singapore as a hub for **IP Dispute Resolution**



In February 2017, the Government released the report of the Committee on the Future Economy (CFE), which contained economic strategies for Singapore's growth in the next decade. The CFE report recognised the important role of IP in supporting innovation and technology transfer in Singapore. It contained a number of recommendations regarding IP, including updating the IP Hub Master Plan to support innovation and entrepreneurship.<sup>1</sup>

Supporting these **Strategic Outcomes** were two **Enablers** –



Achieving the three Strategic Outcomes requires a pipeline of **Skilled Manpower Resources Networked to the Region and Beyond**.



Singapore should nurture a **Conducive and Progressive Environment for IP Activities**, and increase our **visibility and mindshare as an IP Hub** amongst international stakeholders.

Following the CFE recommendations, the Ministry of Law (MinLaw) and Intellectual Property Office of Singapore (IPOS) published an Update of the IP Hub Master Plan in April 2017. The Update contained three areas of recommendations –



Singapore should expand the pool of local IP expertise to help enterprises manage and commercialise their IP portfolio.



Singapore should enhance its IP and innovation regime to facilitate the commercialisation and monetisation of IP. For example, there can be greater access by enterprises to technologies developed by publicly-funded Research and Development (R&D).



Singapore should create an effective marketplace for IP, for example by improving transparency around IP-related market information.

<sup>1</sup> See Recommendation 3.1 of the CFE Report on "Strengthen our innovation ecosystem".

## MAIN ACHIEVEMENTS AND PROGRESS

Singapore has made significant progress with the recommendations of the IP Hub Master Plan and its subsequent Update. A summary of the main achievements is as such:

### IP Filings

- IPOS' patent search and examination capabilities
  - ISO 9001:2015 certified.
  - More than 90% of examiners are PhD holders.
  - First International Searching Authority (ISA) / International Preliminary Examining Authority (IPEA), which examines international applications under the World Intellectual Property Organization (WIPO) Patent Cooperation Treaty, in ASEAN.

### ● IPOS Go Mobile App

IPOS launched the IPOS Go mobile app in August 2019 and introduced a suite of enhancements a year later. The app gives business owners easy access to their IP portfolios and enables them to perform common transactions directly with IPOS via a simplified and intuitive user interface (UI) while on the go. This allows them to derive significant savings in time and filing costs. Services provided include:



**Trade mark application.** An application can be completed in as fast as 10 minutes instead of the usual 60 minutes spent on trade mark applications. Since its launch, more than 800 trade mark applications have been filed using the app.



**IP renewal.** Users are able to easily search for their registrations which are due for renewal, and make payment for instant renewal in a few simple steps.

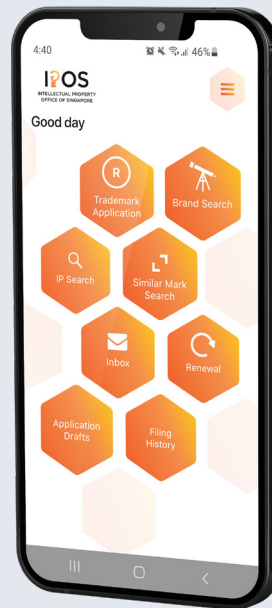


**Searching and viewing IP information on the register.** Customers can search and browse the public register for basic information on various types of IP filed with IPOS.



**Searching for similar trade marks using image search.** Users can easily search for similar trade marks by uploading an image or snapping a picture on their mobile devices. Powered by an artificial intelligence-based search engine, the service helps business owners to avoid designing brands and logos which may be confused with existing trade marks.

Looking ahead, IPOS will introduce Brand Search in the app. This will help entrepreneurs and new business owners conduct a quick search for similar business names, similar trade marks, available domain names, and available social media usernames before deciding on a suitable name for their brand.



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### IP Manpower

- Launched Skills Framework for Intellectual Property, which contains information such as career pathways, skills, and competencies for five career tracks – IP Legal, Patent Prosecution, IP Strategy, IP Management, and IP Commercialisation.
- Launched Master of IP and Innovation Management programme at the Singapore University of Social Sciences, with three possible specialisation tracks – Patent Agency, IP Management, and IP Technology.

### IP Dispute Resolution

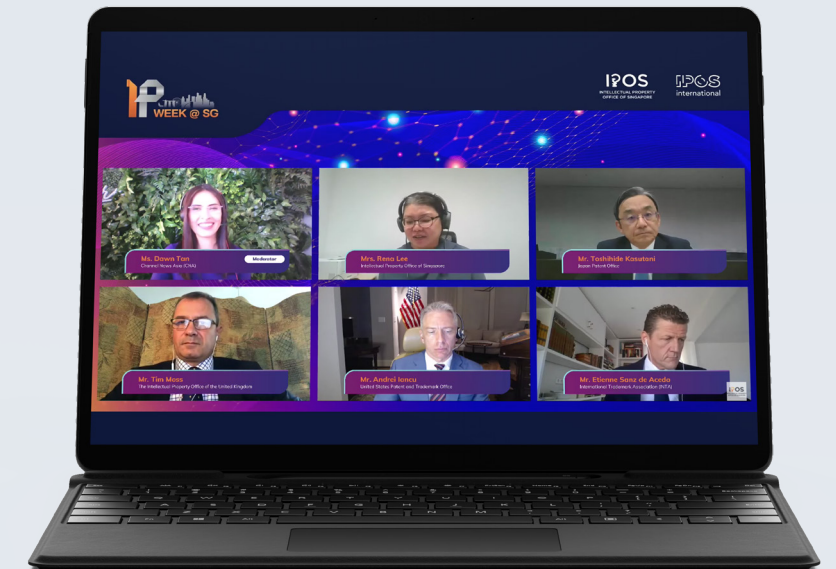
- Specialised list of IP judges at the High Court.
- IP Court Guide sets out special case management procedures for IP cases.
- WIPO Arbitration and Mediation Center in Singapore, the only one outside WIPO's headquarters in Geneva.
- Specialist panel of IP arbitrators at the Singapore International Arbitration Centre.

### IP Week @ SG

IP Week @ SG is the flagship IP event in Singapore and a major fixture in the international IP calendar. It brings together leading IP practitioners, business leaders, policy makers, and thought leaders to network and discuss the latest trends and developments in IP.

The 2020 edition was held fully digital for the first time and brought together more than 5,000 participants from over 45 countries, including senior leaders of major IP offices from China, Japan, the UK, and the USA. It also attracted more than 70 partner organisations and featured close to 20 related events.

Seven enterprises were also recognised in a special edition of the IP Awards - the IPOS Innovation for Humanity Awards – which recognised the contributions of enterprises battling COVID-19.



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Singapore as a Hub for Quality IP Filings.



### LAUNCH OF IP HUB MASTER PLAN

to develop Singapore as a Global IP Hub in Asia.



Singapore as a Hub for IP Dispute Resolution.

Singapore as a Hub for IP Transactions and Management.



2013

2010

WIPO Arbitration and Mediation Center was established in Singapore, the only one outside WIPO's headquarters in Geneva.

2012

The inaugural IP Week @ SG was held in Singapore, which brought together the international IP community.

2014

IPOS joined the Global Patent Prosecution Highway (GPPH) network and became a participating office of the GPPH pilot programme.

IPOS was appointed as ASEAN's first International Searching Authority (ISA) / International Preliminary Examining Authority (IPEA) under the WIPO Patent Cooperation Treaty.

Specialist panel of IP arbitrators was appointed at the Singapore International Arbitration Centre.

2015

IP Legal Clinic was launched for enterprises to obtain preliminary advice from qualified legal practitioners.

IPOS' patent search and examination capabilities attained ISO 9001:2015.

2019

Registry of Geographical Indications was established in IPOS.

IPOS launched IPOS Go, the first mobile app in the world that allows businesses to apply for trade marks in less than 10 minutes.

The IP Mediation Promotion Scheme was enhanced with funding support for mediation-related agent fees.

IPOS International was launched, bringing together more than 100 IP experts to support businesses in IP strategy and management, patent search and analytics, and IP education and training.

The first national-level Skills Framework for the IP sector was introduced to raise the overall competencies of IP professionals.

2017



### UPDATE OF IP HUB MASTER PLAN

Grow the local pool of IP expertise to help enterprises manage and commercialise their IP.



Create an effective marketplace for IP.

2020

Launched the Intangible Disclosure Evaluation and Audit Scheme (IDEAS) pilot programme to help companies identify and communicate the value of their IA.

SG IP Fast Track programme was introduced to accelerate the registration of patents and related trade marks and registered designs.



Enhance Singapore's IP and innovation ecosystem.

# BUILDING ON STRONG FOUNDATIONS





# POSITIONING SINGAPORE TO CAPTURE NEW OPPORTUNITIES

The IP Hub Master Plan and its Update have provided a strong base from which Singapore has built capabilities and infrastructure to support a wide range of IP activities. The Singapore IP Strategy 2030 (SIPS 2030) aims to elevate Singapore's standing as a leader in intangible assets (IA) and IP expertise and services.

<sup>2</sup> Refers to payments for use of IP rights such as patents, trade marks, and copyright and related rights. Data from World Bank DataBank.

<sup>3</sup> WIPO World Intellectual Property Indicators Report 2020.

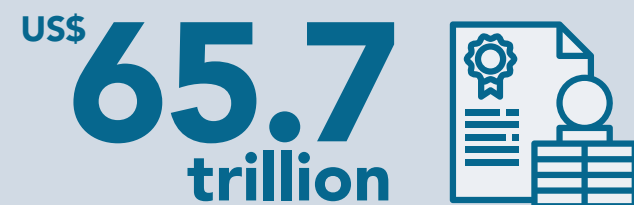
<sup>4</sup> The number of patent applications in 2019 was unusually high due to the impending closure of the "foreign route" for search and examination (where an applicant relies on the search and examination report issued by a foreign patent office for the same invention to obtain a patent in Singapore) in 2020. Trade mark applications decreased slightly from 2019 to 2020, driven by a drop in foreign filings, likely due in part to the COVID-19 pandemic which affected business activities.

<sup>5</sup> Globally, the number of patent applications grew by 12% from 2015 to 2019, while the number of trade mark applications grew by 75%. Data from WIPO IP Statistics Data Center.

<sup>6</sup> International Monetary Fund, "Singapore: 2018 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Singapore", 27 Jul 2018.

## EVOLVING IA/IP AND INNOVATION LANDSCAPE

The global economy has experienced important shifts in the last decade since the IP Hub Master Plan was published.



Value of global intangible assets hit an all-time high in 2020.

Source: Brand Finance's Global Intangible Finance Tracker 2020 study

Global payments for the use of IP have increased by 63.6% between 2010 and 2019 to



Source: World Bank DataBank

Asia is at the forefront of innovation and R&D, accounting for **>45% of global gross domestic expenditure** on R&D in 2017.



Source: UNESCO Institute for Statistics

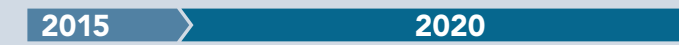


of all patent applications worldwide in 2019 came from Asia. In comparison to just over 50% a decade ago.

Source: WIPO's World Intellectual Property Indicators Report 2020



### AT IPOs



Source: International Monetary Fund

**30% compound annual rate increase** in corporate sector investment in intangible capital between 2013 and 2016.<sup>6</sup>

Source: International Monetary Fund

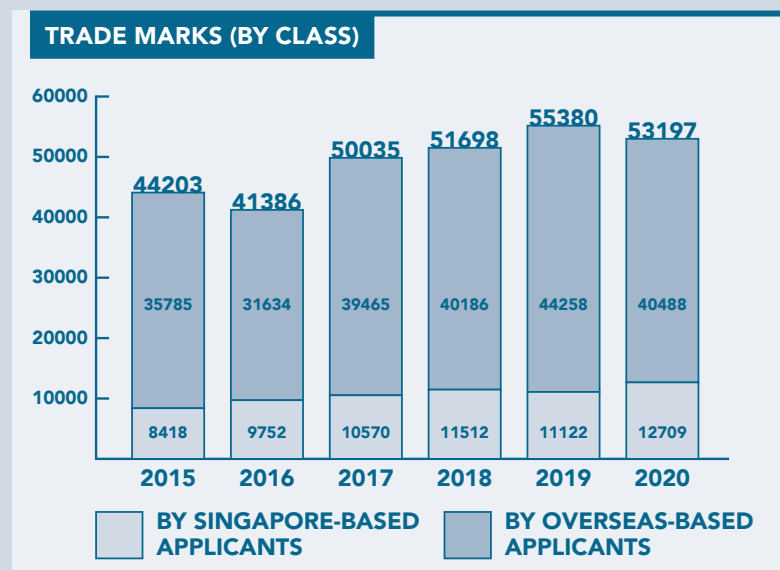
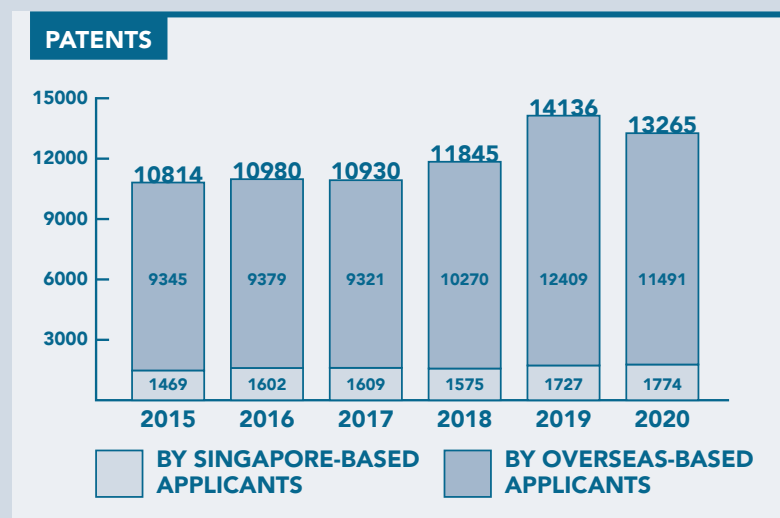
### GLOBAL RANKINGS



### Global Innovation Index Indicators

- Since 2015 **Ranked 1st in Innovation Inputs**
- Ranked 1st in Political Environment\***
- Ranked 2nd in Investment\***
- Ranked 1st in Tertiary Education\***
- Ranked 6th in Intellectual Property Payments\***

\*Ranked in 2020





## OVERVIEW OF SINGAPORE IP STRATEGY 2030

Innovation and IA/IP are essential drivers of the economy, in Singapore and across the world. Singapore’s connectivity with the world is an important facet of our future growth strategies. SIPS 2030 builds on our growing IA/IP and innovation ecosystem and considers how IA/IP can be further leveraged to support economic and job growth.

SIPS 2030 consists of three focus areas, each addressing a different aspect of Singapore’s economy – i.e., supporting international activities, growing local enterprises, and building a high-calibre workforce. The focus areas are summarised in the accompanying infographic, and the subsequent chapters will elaborate on them.

SIPS 2030 builds on our growing IA/IP and innovation ecosystem and considers how IA/IP can be further leveraged to support economic and job growth.

SIPS 2030 is spearheaded by an inter-government committee.

CHAIRPERSON	
<b>Ms Indraneel Rajah</b> Minister, Prime Minister’s Office, Second Minister for Finance, and Second Minister for National Development	
DEPUTY CHAIRPERSON	
<b>Mr Edwin Tong</b> Minister for Culture, Community and Youth, and Second Minister for Law	
COMMITTEE MEMBERS	
Representatives from	
<ul style="list-style-type: none"> <li>Ministry of Law (MinLaw)</li> <li>Ministry of Trade and Industry (MTI)</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of Finance (MOF)</li> <li>IPOS as Secretariat</li> </ul>
SUPPORTING AGENCIES	
<ul style="list-style-type: none"> <li>Accounting and Corporate Regulatory Authority (ACRA)</li> <li>Agency for Science, Technology and Research (A*STAR)</li> <li>Economic Development Board (EDB)</li> <li>Enterprise Singapore (ESG)</li> </ul>	<ul style="list-style-type: none"> <li>Infocomm Media Development Authority (IMDA)</li> <li>Monetary Authority of Singapore (MAS)</li> <li>Singapore Accountancy Commission (SAC)</li> <li>SkillsFuture Singapore (SSG)</li> </ul>

The broad representation of agencies underscores the relevance of IA/IP across multiple industry sectors and functional domains including research and innovation, product development, finance, trade, law, and human resources.

Over the past year, these agencies engaged a wide range of stakeholders to gather and test ideas and obtain valuable feedback. We are grateful for the contributions and insights received, which have been integral to the development of SIPS 2030.



CHAPTER **2** **STRENGTHEN SINGAPORE'S POSITION AS A GLOBAL HUB FOR IA/IP**



### Ensure a world-class IA/IP regime



Support technology advances through policy reviews



Empower innovators and creators through digitalisation



### Position Singapore as a node – supporting ASEAN; connecting to the world



Facilitate protection of innovations in overseas markets through Singapore



IP and the ASEAN Economic Community



ASEAN IP programmes to support businesses



Improve access to IP information and services digitally in ASEAN



### Grow international IP dispute resolution in Singapore



Build IP dispute resolution capabilities through training and professional development



Market Singapore's IP dispute resolution services internationally

2.1.

## ENSURE A WORLD-CLASS IA/IP REGIME

A world-class IA/IP regime is needed to build investor confidence. Investors and IA/IP owners need to be assured that their innovations will be adequately protected in Singapore before deciding to do business and locate high-value activities here.

Ensuring that Singapore's IA/IP regime and laws remain relevant and conducive for business amid rapid technological changes and digitalisation is a critical strategy in SIPS 2030.



Ensuring that Singapore's IA/IP regime and laws remain relevant and conducive for business is a **critical strategy in SIPS 2030.**

## SUPPORT TECHNOLOGY ADVANCES THROUGH POLICY REVIEWS

### Review our IA/IP regime to ensure its relevance in supporting the use of big data for innovation

Technological and market changes in the digital economy significantly affect how data is created, distributed, and consumed. The “big data revolution” has seen huge growth in the generation and collection of digital data, and driven the creation of large datasets and databases which are the “stock feed” on which new technologies such as machine learning rely on.

To support an economy powered by digital innovation, Singapore is introducing an exception for computational data analysis in the upcoming Copyright Bill. This new exception will allow the use of copyrighted works for purposes such as text and data mining, data analytics, and machine learning.

The Intellectual Property Office of Singapore (IPOS) will continue to study how big data is important for Singapore and whether further changes to Singapore’s IA/IP laws are necessary to help our innovators and enterprises capture economic opportunities offered by the digital economy. The aim is to find a balance between the interests of creators (providing incentives to encourage further innovation in big data) and ensuring access by third parties to maximise the benefits of the original works.

### Study and implement initiatives to enable enterprises to more effectively protect and manage trade secrets and confidential information

Trade secrets are increasingly important for enterprises. For example, in a 2017 survey of senior executives by Baker McKenzie, four in five respondents indicated that trade secrets were an important, if not essential, part of their business.

In light of this, IPOS has embarked on a study to ensure that our regime for the protection of trade secrets is up-to-date and conducive for innovative enterprises. We will also look into ways to ensure that Singapore-based enterprises can effectively protect and use their trade secrets, for example by raising awareness of the importance of trade secret management and equipping enterprises with the necessary resources, tools, and capabilities to do so. These may include information guides, training programmes, and other services such as digital time-stamping.

We will also look into ways to ensure that Singapore-based enterprises are able to effectively protect and use their trade secrets.



### Study the interface between AI & IP policy to encourage creation and deployment of new AI technologies

Artificial intelligence (AI) is increasingly being used in content generation and the development of inventions. These trends raise important issues for the IA/IP regime, particularly whether the regime in its current form is conducive for AI innovation and adoption. The global community has started to study the interface between AI innovation and IP policy. The World Intellectual Property Organization (WIPO) has led a series of WIPO conversations on AI to discuss the most salient and pressing issues facing IP offices and policy makers. Major IP offices such as those in the USA and UK have also conducted public consultations on a wide range of AI-related topics.<sup>1</sup>

The National AI Strategy<sup>2</sup> was published in November 2019. It sets out a vision for Singapore to be a leader in developing and deploying AI solutions in key sectors important to citizens and businesses by 2030. It recognises the important role of the IP regime in supporting the development and commercialisation

of new AI technologies (see Key Thrust 4.2: Provide a top-class IP regime and accelerated patent initiatives for AI). IPOS has published an Information Note in 2020, developed in conjunction with industry and government partners, to provide information on the main IP issues relevant to the AI community.<sup>3</sup>

Looking ahead, IPOS is similarly reviewing the local IA/IP regime to ensure that it supports the development and use of AI technologies. As part of this review, IPOS has embarked on a research collaboration with the Singapore Management University (SMU) Centre for AI and Data Governance and Infocomm Media Development Authority (IMDA) to gather views from key stakeholders in the AI field.

The review will consider important concepts in IP which have come under increasing scrutiny with the advent of AI technologies.

<sup>1</sup> Find out more about the UKIPO’s call for views here: [www.gov.uk/government/consultations/artificial-intelligence-and-intellectual-property-call-for-views](http://www.gov.uk/government/consultations/artificial-intelligence-and-intellectual-property-call-for-views). Find out more about the USPTO’s AI initiatives and consultation here: [www.uspto.gov/initiatives/artificial-intelligence](http://www.uspto.gov/initiatives/artificial-intelligence).

<sup>2</sup> The National AI Strategy can be found at [www.smartnation.gov.sg/why-Smart-Nation/NationalAIStrategy](http://www.smartnation.gov.sg/why-Smart-Nation/NationalAIStrategy).

<sup>3</sup> The Information Note can be found here: [www.ipos.gov.sg/manage-ip/grit](http://www.ipos.gov.sg/manage-ip/grit).



## EMPOWER INNOVATORS AND CREATORS THROUGH DIGITALISATION

### Better IP management through next-generation IP filing system

The current online filing platform for registrable IP – IP<sup>2</sup>SG – was commissioned in September 2015 and has served the IP community well, with most customers satisfied with online transactions with IPOS.

IPOS is currently building a next-generation IP filing system that will be easier and more intuitive to use. Enterprises and innovators will be guided by pre-emptive assistance along the filing process, which increases certainty and improves the quality of submissions. In addition to filing IP, users can manage their IP portfolios through a user-friendly dashboard. In future, the platform will also offer analytical insights for better decision making. The new platform will be launched by mid-2022.

### Introduce digital time-stamping service



Besides registrable IP rights, IPOS is studying other approaches to managing IA. An example is the digital time-stamping service, WIPO PROOF, launched in May 2020 which provides an electronic certification that proves the existence of a digital file at a specific point in time.<sup>4</sup> Potential applications of such a digital time-stamping service include trade secrets and know-how, creative works and designs, scientific research data, as well as other non-registrable digital assets.

<sup>4</sup> More information about WIPO PROOF can be found here: [go.gov.sg/digital-intellectual-assets](https://go.gov.sg/digital-intellectual-assets).

## POSITION SINGAPORE AS A NODE – SUPPORTING ASEAN; CONNECTING TO THE WORLD

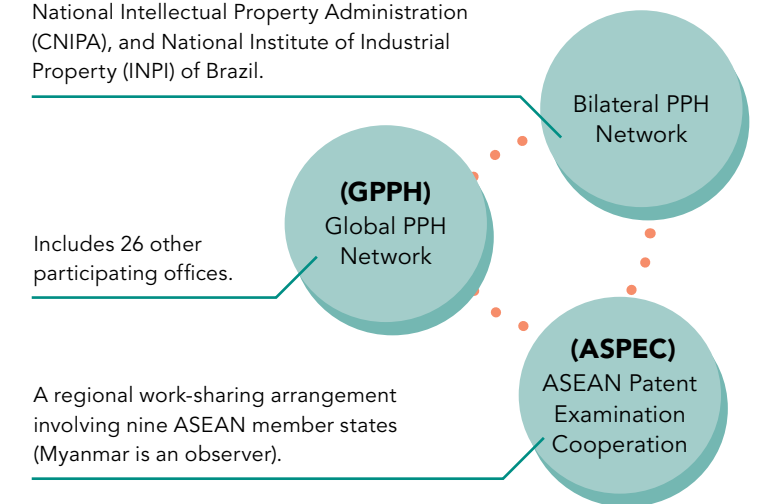
### FACILITATE PROTECTION OF INNOVATIONS IN OVERSEAS MARKETS THROUGH SINGAPORE

IP is territorial in nature, in that protection is only available in the jurisdiction of grant. Set against the backdrop of an increasingly globalised economy, IP offices have collaborated closely through international treaties and work-sharing agreements to overcome the challenges posed by territoriality. Singapore has established and participated in several such initiatives to help IA/IP owners take their innovation to the global market.

The Patent Prosecution Highway (PPH) is a work-sharing arrangement which helps businesses to use their patent search and examination (S&E) report from an earlier office to accelerate patent prosecution in another jurisdiction. This translates to a shorter time for patent grants and higher quality patents.

Guided by the IP Hub Master Plan, IPOS has formed PPH arrangements with the five key IP markets, i.e., the USA, Europe, China, Japan, and South Korea (often referred to as the IP5). IPOS has also continued to grow its PPH and work-sharing network, which covers close to 40 markets today.

IPOS has bilateral PPH agreements with the European Patent Office, Instituto Mexicano de la Propiedad Industrial (IMPI) of Mexico, China National Intellectual Property Administration (CNIPA), and National Institute of Industrial Property (INPI) of Brazil.



Singapore has also established patent re-registration programmes with Cambodia and Laos which accelerate IP protection in the ASEAN market through a Singapore-granted patent. For design protection, Singapore has established a design recognition programme with Cambodia to better support designers seeking IP protection in Cambodia and Singapore.

Singapore's Free Trade Agreements (FTAs) also contain IP components that facilitate business activities around the world. For example, through the Regional Comprehensive Economic Partnership (RCEP), businesses can look forward to protecting non-traditional trade marks and a wider range of industrial designs in the region. Parties will also be committed to acceding to international IP treaties, which will give businesses the option of securing IP protection through a single application.

Several international organisations and enterprises have set up their regional offices here, reinforcing Singapore's position as a hub for the IP community and businesses. The International Trademark Association (INTA) opened its Asia Pacific Representative Office in Singapore in 2016, following the setting up of the WIPO Singapore Office (WSO) in 2005. The WIPO Arbitration and Mediation Center Singapore Office was established in 2010, its first, and so far, only office outside Geneva. Beyond WIPO and INTA, Singapore

is also the operating base for IP attachés from several important trading partners (i.e., the UK, Japan, and France). A robust IP regime and the presence of international IP bodies make Singapore an ideal base for enterprises to manage their regional IP (e.g., Mastercard and P&G).

We have developed new capabilities to build a more robust patent prosecution system across the years. In 2014, we moved from a self-assessment system to a positive grant system where patent applications must receive a positive examination report before a patent can be granted. Since then, IPOS has established a highly qualified team of patent examiners with technical competencies across a wide range of key sectors to support our innovators' needs. All these have helped enterprises to better manage their IP in and through Singapore.

In 2014, IPOS was appointed as an International Searching and Preliminary Examining Authority under the WIPO Patent Cooperation Treaty (PCT). This allows enterprises to rely on IPOS' deep expertise in S&E when seeking patent protection in multiple markets through the PCT. We will continue to strengthen our regime and international cooperation to facilitate the protection of innovation for enterprises through Singapore to ASEAN and globally.

## OneConnect Financial Technology

OneConnect Financial Technology Co., Ltd. is a leading technology-as-a-service platform provider enabling digital transformation for financial institutions. OneConnect offers a broad spectrum of innovative solutions and extensive experience in the financial industry. This enables it to be a trusted strategic technology partner to deploy an end-to-end suite of digital solutions across different phases of its clients' transformation journey.

Incubated by Ping An, OneConnect embraces a strong culture of innovation and has R&D infused into its DNA. In 2020, OneConnect invested S\$240.64 million, or over 35% of its revenue, in R&D. It currently employs about 950 tech experts, representing 41% of its total employees. Recognising the importance of protecting its proprietary technologies and IP, OneConnect has filed over 4,800 patent applications globally.

The global market is key for OneConnect's continued success. OneConnect has rapidly expanded its international footprint, spanning Southeast Asia, South Asia, UAE, Japan, South Korea, and Europe where it counts major banks and insurance companies as clients.

In 2018, OneConnect set up its regional headquarters in Singapore to spearhead regional expansion and innovation.

Singapore was chosen because of its strengths as a financial and innovation hub, and its strategic position as a gateway to Asia. In addition, Singapore's robust IP regime was also a critical consideration, with OneConnect filing more than 50 patents in technologies such as artificial intelligence, blockchain, and big data with IPOS to support its business growth and R&D activities in the region.



“

Innovation around the world continues to grow exponentially with the intensifying pace of globalisation and cross-border activities in the digital economy. Singapore's vision towards a global IP hub is well positioned to resonate with the rising importance for enterprises to grow, protect, and commercialise their innovations and IA as they scale and internationalise. OneConnect is committed to using its expertise in innovation and curating ecosystems with diverse and value-adding partners, including IP institutions like IPOS, for enterprises to forge mutually-beneficial collaborations, do business securely, and thrive symbiotically across geographies.”

### Tan Bin Ru

CEO (Southeast Asia),  
OneConnect Financial Technology and  
Co-Chairwoman, Blockchain Association Singapore

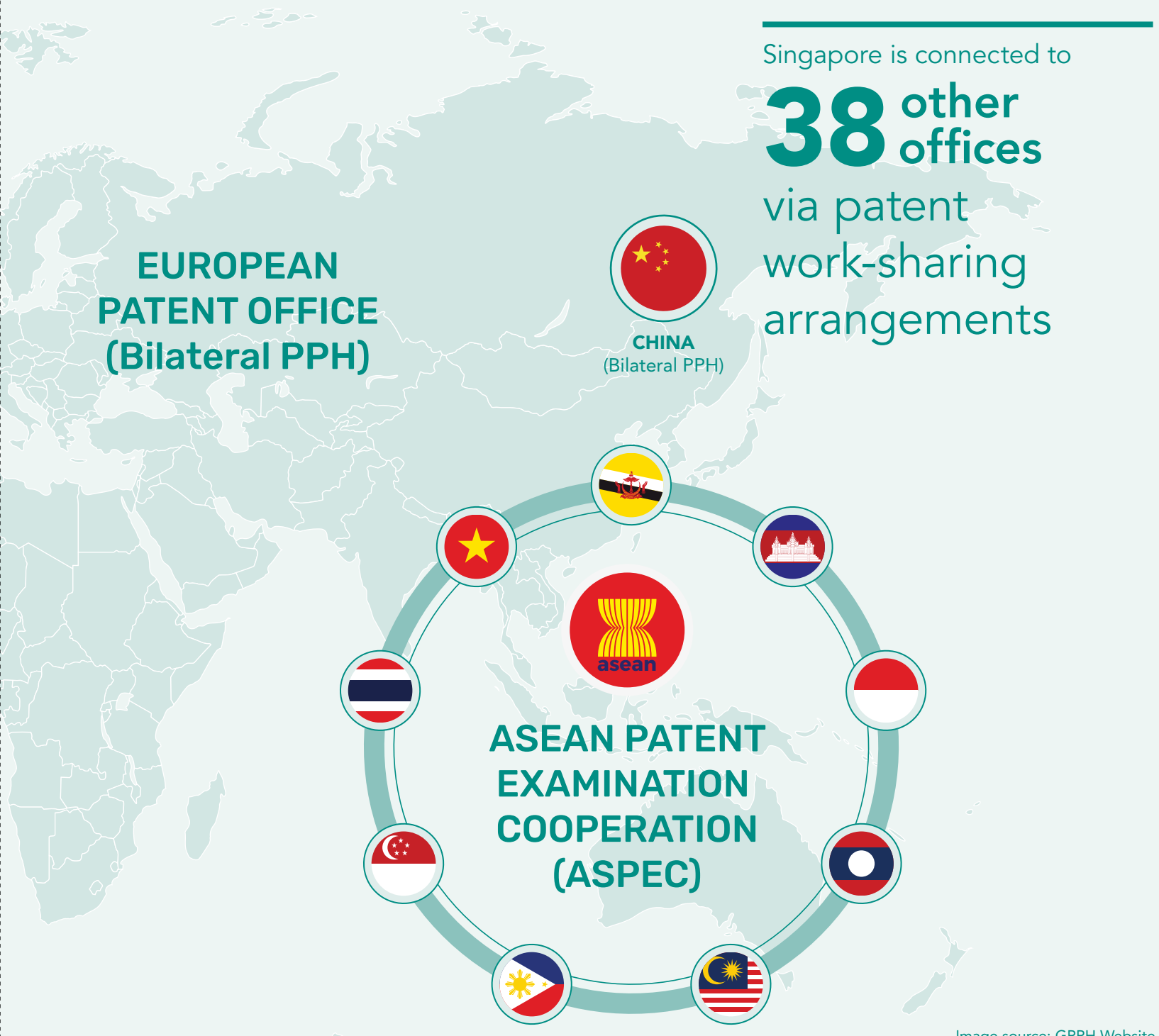
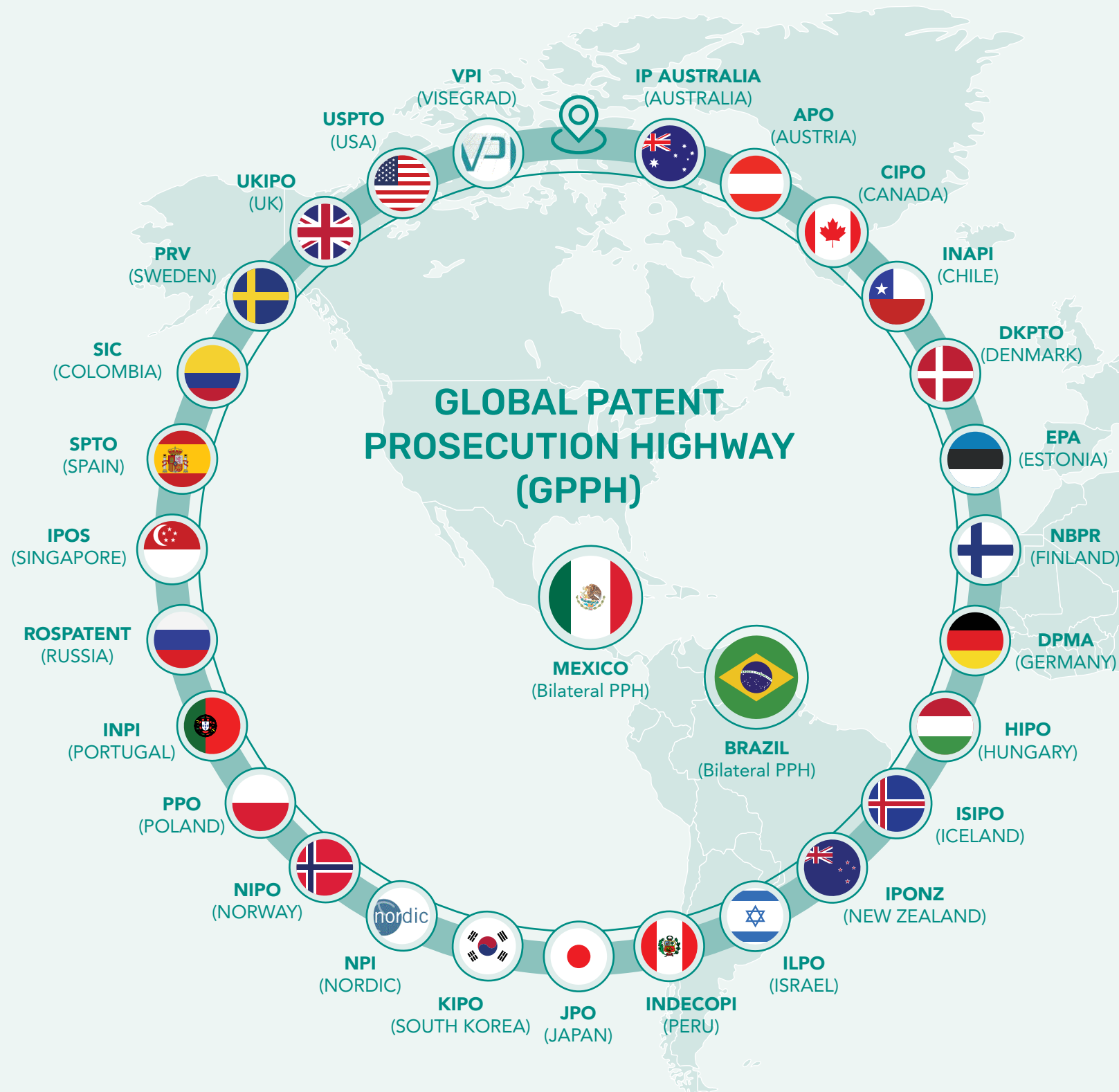


Image source: GPPH Website

## IP AND THE ASEAN ECONOMIC COMMUNITY

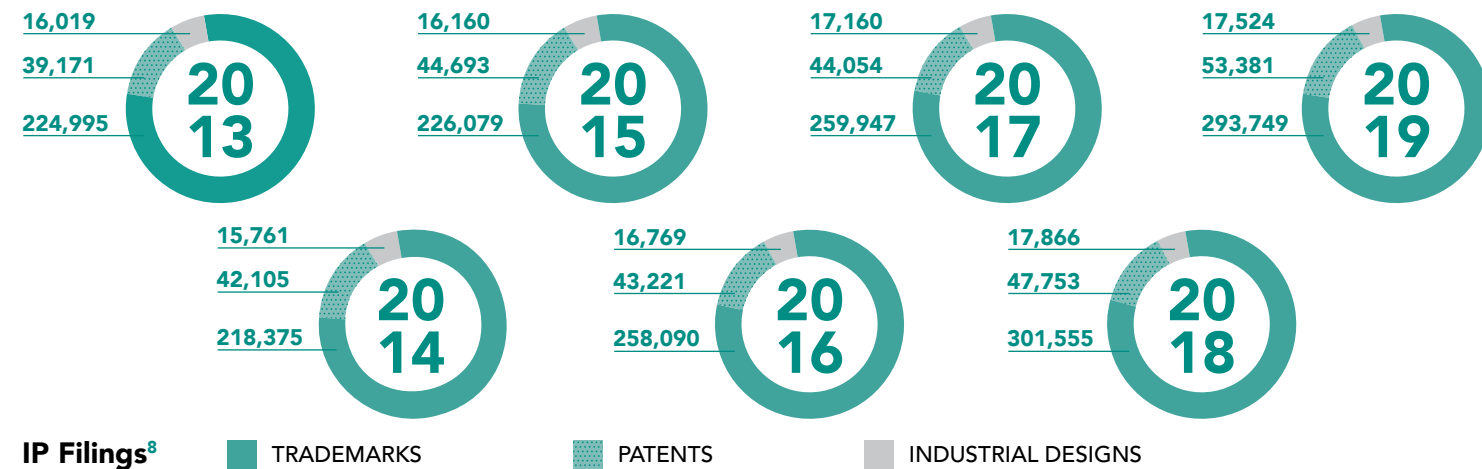
ASEAN economies have grown tremendously at an average rate of around 5% annually over the last 20 years,<sup>5</sup> and represented a collective GDP of US\$3.2 trillion in 2019, making it the world's fifth-largest economy.<sup>6</sup> ASEAN is expected to emerge stronger from the COVID-19 pandemic and continue its economic trajectory, making it the fourth-largest economy in the world by 2030.

International trade and foreign direct investment (FDI) are critical elements contributing to the vibrant economic development of ASEAN. Over the last two decades, FDI inflows increased by around eight-fold from US\$21.8 billion in 2000 to US\$160.6 billion in 2019. While intra-ASEAN FDI flows doubled during this period, most FDI inflows originated from extra-ASEAN sources.<sup>7</sup>

Although multiple factors may affect investment decisions, IP protection remains a key consideration as it assures foreign investors that their creations and innovation are adequately protected overseas. The ASEAN Economic Community (AEC) 2025 envisions a more cohesive and integrated ASEAN in 2025.

ASEAN has to deepen its economic integration before it fulfils its ambition of a more closely-knitted single market. Various sectors, including the IP sector, need to progress towards greater interoperability within ASEAN.

To this end, ASEAN countries have been strengthening their IP regimes. IP filings in ASEAN have also been growing and the trend is expected to continue as innovation becomes increasingly important to the region.



<sup>5</sup> McKinsey Global Institute – Outperformers Maintaining ASEAN Countries' Exceptional Growth <sup>7</sup> ASEAN Key Figures 2020

<sup>6</sup> Singapore Budget 2021 Speech

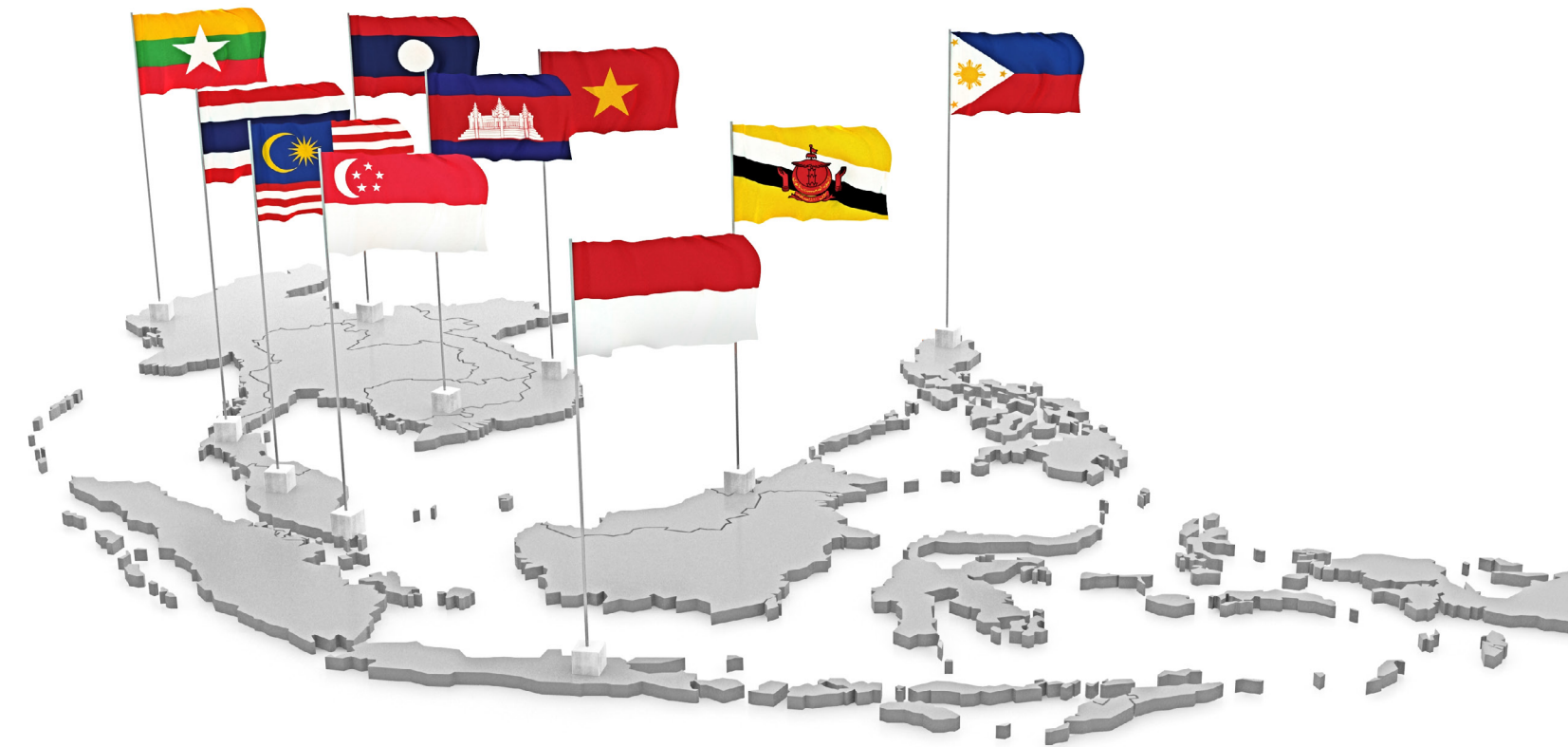
<sup>8</sup> ASEAN IP Portal

## ASEAN IP PROGRAMMES TO SUPPORT BUSINESSES

The territorial nature of IP inevitably results in differences in practices across different jurisdictions. This is a challenge given that innovation is global, and market opportunities and trade cross borders. At the regional level, the ASEAN Working Group on IP Cooperation (AWGIPC) recognises the importance of IP in facilitating trade and investment flows across borders. The AWGIPC serves as the platform for ASEAN IP leaders to improve the region's IP framework.

The AWGIPC has established several taskforces to foster greater regional cooperation and develop relevant IP frameworks:

- ASEAN Task Force on Trademarks;
- ASEAN Task Force on Patent Examination Cooperation; and
- ASEAN Network of IP Enforcement Experts.





## Grab as an ASPEC user

Grab offers a wide range of on-demand services in the ASEAN region through its app platform. This includes mobility, food, package and grocery delivery services, mobile payments, and financial services. With over 214 million mobile devices, Grab is active in close to 400 cities in eight countries in the region - Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.



As a leading platform, Grab is constantly innovating to provide the best everyday services that matter to consumers. Grab Singapore HQ is home to its largest R&D centre which houses the majority of its total tech talent headcount, specialising in technologies such as artificial intelligence, data science, machine learning and cybersecurity.

Grab has a robust portfolio of patents to protect its innovations in the areas of mobility, food delivery, and geo-location technologies. For example, Grab has patents that recommend visual local landmarks and algorithms to improve precision and accuracy in mapping pick-up points and tracking moving vehicles to help passengers and drivers get from point to point with greater ease and efficiency.

Seeking patent protection in the ASEAN region is important to Grab but presents a myriad of challenges. Each ASEAN country has different language requirements, formalities, and documentation that apply, and each country has varying levels of protection and different procedures to obtain such a patent.

The ASEAN Patent Examination Cooperation (ASPEC) provided Grab with a coordinated and efficient approach with respect to seeking patent protection in the ASEAN region, particularly with respect to patent filing and prosecution, to ensure that appropriate coverage is achieved in a cost-effective manner. ASPEC allows patent applicants

to operate in one single working language, alleviating the time and effort required for translating documents. It also allows a search and examination report from any member country to be used as a reference for another member country's search and examination work, speeding up the patent prosecution process for grant while ensuring good patent quality.



“As the world embraces digitalisation, it is critical that companies leverage on quality and agile programmes and frameworks to protect their innovation. This is especially important given that many technology-driven companies not only serve the local market, but also have operations in the region and globally. As a technology company, we were able to utilise ASPEC to seek patent protection for the innovation behind some of our key features across the region. ASPEC serves as a useful conduit for companies seeking to protect their innovation in the region.”

**Angeline Lee**

Head of IP

The AWGIPC has also developed several programmes to foster interoperability amongst its IP regimes. At the international level, ASEAN members are parties to several of WIPO's international treaties (e.g., PCT, Madrid system for Trade Marks, Hague system for Industrial Designs) to facilitate the process of seeking protection for innovators through a single platform.

Essentially, these agreements allow innovators to seek IP protection by accessing WIPO's international filing systems and designating the required countries where protection is sought. This allows faster access to overseas markets. Besides the treaties, the taskforces have also created common guidelines and forms to help innovators navigate the ASEAN IP landscape. We will continue to participate actively in the taskforces to identify business needs and shape IP frameworks in ASEAN.

At the regional level, the ASEAN Patent Examination Cooperation (ASPEC), led by Singapore, is an example of a regional IP work-sharing initiative that has benefited enterprises who want to protect their IP in the ASEAN market. ASPEC allows for the patent report of one member country to accelerate the application process in another. This allows ASEAN to pool together its patent prosecution capabilities to result in downstream time and cost savings for applicants.

Since its inception, ASEAN has enhanced the ASPEC initiative to allow reliance on PCT work products, e.g., search or examination reports (PCT-ASPEC), and include a sector-specific arrangement to support industry 4.0 efforts (ASPEC Acceleration for Industry 4.0 Infrastructure and Manufacturing or ASPEC AIM). Together, these enhancements provide more options for enterprises and reduce delays in patent applications for sectors with emerging technologies. Singapore also frequently hosts Community of Practice (CoP) forums for ASEAN patent examiners to exchange best practices to ease the patent prosecution process for innovators in the region.

## IMPROVE ACCESS TO IP INFORMATION AND SERVICES DIGITALLY IN ASEAN

Launched in 2013 by the AWGIPC, the ASEAN IP Portal is a consolidated platform for enterprises and innovators to access IP information for the region. Users can access information on ASEAN initiatives, relevant IP databases and resources on IP case laws and practical case studies, amongst others. In the future, users can look forward to a one-stop digital platform for consolidated IP information and services within ASEAN. In addition to accessing the portal for services relating to IP prosecution, another key area is IP education and training through the proposed plan for a virtual ASEAN IP Academy.

# GROW INTERNATIONAL IP DISPUTE RESOLUTION IN SINGAPORE

Singapore is one of the leading cross-border dispute resolution centres in the world. Undergirded by a trusted legal system, rule of law, and neutrality, we provide a comprehensive suite of international dispute resolution services to meet different business needs. These include litigation, arbitration, and mediation. According to the 2018 International Arbitration Survey conducted by Queen Mary University of London in partnership with White & Case,<sup>9</sup> Singapore is the third most preferred seat of arbitration in the world, and the Singapore International Arbitration Centre (SIAC) is the third most preferred arbitration institution in the world and the most preferred arbitration institution in Asia.

Singapore provides a comprehensive suite of international commercial dispute resolution services, including in IP disputes. We are able to do so by:



**Supporting the development and growth of Singapore international dispute resolution institutions**, such as SIAC, Singapore Chamber of Maritime Arbitration (SCMA), Singapore International Mediation Centre (SIMC), and Singapore International Commercial Court (SICC).



**Welcoming top international dispute resolution institutions to anchor in Singapore**, to complement Singapore's offerings. Key international institutions with case management offices in Singapore include the World Intellectual Property Organization Arbitration and Mediation Center (WIPO AMC), which is its only overseas office outside Geneva, the International Chamber of Commerce (ICC) International Court of Arbitration, the Permanent Court of Arbitration (PCA), and the American Arbitration Association - International Centre for Dispute Resolution (AAA-ICDR).



**Having an open regime to practise international commercial arbitration.**

This promotes party choice and gives parties involved in arbitration in Singapore the freedom to engage lawyers and arbitrators of any nationality and use any governing law. Singapore has also invested in developing international commercial mediation by building up institutions, developing capabilities, and updating our laws.



**Developing good physical supporting infrastructure that is accessible, high-tech, and purpose built.**

Singapore regularly enhances our world-class hearing facilities. Maxwell Chambers was launched in 2010 as the world's first integrated dispute resolution complex housing both international dispute resolution institutions and practices, and state-of-the-art hearing facilities. In 2019, Maxwell Chambers expanded to the adjacent Maxwell Chambers Suites, tripling its previous size. Today, Maxwell Chambers is home to the highest concentration of case management offices within a facility in the world.



**Strengthening Singapore's legislative framework to ensure it remains updated, relevant, and responsive to international businesses' needs.**

For example, in 2020, amendments were made to the International Arbitration Act to enhance Singapore's legal framework for international arbitration. In the area of IP, amendments were also introduced to the Arbitration Act and the International Arbitration Act in 2019 to make clear that IP disputes can be arbitrated in Singapore. This promotes the use of arbitration in IP disputes, and strengthens Singapore's position as a choice venue for the arbitration of international IP disputes.



**Promoting thought leadership in international dispute resolution.**

A prime example of this was the Singapore Convention on Mediation. The UN's decision to name the treaty after Singapore is a testament to Singapore's extensive contributions to developing international commercial mediation globally.

As a leading international dispute resolution hub in the world, Singapore is in a strong position to be a choice venue for IP dispute resolution. We have complemented these general efforts with initiatives targeting areas that are unique to IP and technology disputes. In the last few years, we have seen an overall increase in the number of IP cases resolved in Singapore. SIPS 2030 builds on all of these efforts and concentrates on two fronts. We will build IP dispute resolution capabilities in Singapore and market Singapore's IP dispute resolution services internationally.

<sup>9</sup> The survey can be found at [arbitration.qmul.ac.uk/research/2018](http://arbitration.qmul.ac.uk/research/2018).

## BUILD IP DISPUTE RESOLUTION CAPABILITIES THROUGH TRAINING AND PROFESSIONAL DEVELOPMENT

### Work with law schools and training providers

IP dispute resolution requires different skills and knowledge within the legal profession including negotiation skills, deep IP knowledge, and technological knowhow.

To develop a deep pool of professionals with the full range of skills and knowledge, we are working with the various law schools to include IP content in the teaching curriculum where appropriate. For example, IPOS is working with the National University of Singapore Law School to launch a course on Arbitration of IP Disputes in Academic Year 2021/2022. IPOS has also worked with the SMU School of Law to introduce IP elements into some of its mediation modules from Academic Year 2020/2021.

We are also exploring the possibility of developing specialised IP courses with training providers like the Singapore Institute of Arbitrators and the Singapore Mediation Centre (SMC) to give professionals the option of picking up new skills and contribute to the pool of IP dispute resolution experts.

### Young IP Mediators

The Young IP Mediators (YIPM) initiative was launched in August 2020 to grow interest and experience in IP mediation among aspiring and fresh law graduates. Where possible, YIPMs will be given opportunities to participate as shadow mediators or co-mediators in IP mediation cases to gain first-hand experience. To date, six YIPMs have been appointed.

In December 2020, IPOS announced the first case of a YIPM taking part as a shadow mediator in a successful multi-jurisdictional mediation case. Under the lead of Mr Andy Leck (Principal, Wong & Leow LLC), Mr Utsav Rakshit witnessed a trade mark dispute between Gromark Consumer Enterprises Pte Ltd and GK Laboratory (Asia) Pte Ltd. The dispute was resolved after eight hours of mediation.<sup>10</sup>



Photo credit: Sean Lee

<sup>10</sup> The press release can be found here: <https://www.ipos.gov.sg/media-events/press-releases/ViewDetails/student-mediator-features-in-successful-multi-jurisdictional-ip-mediation-case/>.

### Develop a pool of expert witnesses

In patent disputes, expert evidence is often required to address the technical features of the case. For example, parties may engage experts to provide evidence on the state of the art at the priority date of the patent.

Besides court litigation, experts can also participate in mediation and arbitration, to help the mediator or arbitrator understand the relative strengths of the parties' arguments. Singapore is looking to build and maintain a pool of experts in a range of technology areas, through our extensive network of research institutes and pool of experienced researchers. These experts can undergo basic training in IP law and court procedures which will prepare them to act as expert witnesses or assist in mediation or arbitration. Easy access to such qualified technical experts will increase Singapore's attractiveness as an IP dispute resolution venue.

## MARKET SINGAPORE'S IP DISPUTE RESOLUTION SERVICES INTERNATIONALLY

We will develop an information portal to consolidate relevant information and links to resources. This can include relevant legislation; IP-related court judgments; lists of specialist IP judges, arbitrators, and mediators; mediation case studies which raise awareness about the use and effectiveness of mediation in resolving IP disputes; and latest news and developments. While most

of this information is generally accessible, the portal will direct interested parties to the information they may need more quickly. Furthermore, the portal will serve to showcase Singapore's IP dispute resolution capabilities and IP jurisprudence to an international audience.

We aim to make it easier to access Singapore IP court judgments internationally through various platforms such as the WIPO Lex-Judgments database, which hosts landmark judgments from various jurisdictions. This will increase the likelihood of these judgments being cited in overseas decisions, and in turn raise the profile of the Singapore IP Bench and Singapore as a forum where quality, well-reasoned, and authoritative judgments can be obtained.

Together with our partners, we will also organise events and outreach efforts to promote Singapore as an IP dispute resolution hub. For example, in September and November 2020, the IP Academy, the training arm of IPOS International, collaborated with the SIMC, SIAC, and SICC to showcase Singapore's IP dispute resolution services to enterprises in China. Such events help to profile the full suite of dispute resolution options in Singapore to potential users in overseas markets. IPOS is also working with the IP Students Association (IPSA) on a series of curated interviews with key individuals in the IP dispute resolution space, including judges, an arbitrator, a mediator, and an in-house counsel, to profile the IP dispute resolution expertise available in Singapore.

# CHAPTER 3 ATTRACT AND GROW INNOVATIVE ENTERPRISES USING IA/IP



## Enable enterprises to better leverage IA/IP for growth

- Increase enterprises' access to IA/IP advisory and IA/IP-related services
- Work closely with industry partners to build IA/IP awareness and competencies
- Support enterprises in deriving and maximising value from IA/IP



## Develop a credible and trusted IA/IP valuation ecosystem

- Support IA/IP transactions through credible IA/IP valuation guidelines and practice
- Support IA/IP transactions with better IA/IP disclosures



Singapore has made **Significant Moves** to support enterprises in creating and protecting, managing, and commercialising their IA/IP assets.

3.1.

## ENABLE ENTERPRISES TO BETTER LEVERAGE IA/IP FOR GROWTH

Over the years, Singapore has made significant moves to support enterprises in creating and protecting, managing, and commercialising their IA/IP assets. We have strengthened our public-private partnerships to raise IA/IP awareness amongst enterprises and accelerate the IA/IP and technology commercialisation pathways.

For instance, the National IP Protocol was updated in 2018 to encourage collaborative research activities between public agencies and enterprises.

We have also worked closely with Trade Associations and Chambers (e.g., the Singapore Business Federation), industry partners and various communities (e.g., the creative and arts) to build IA/IP awareness and capabilities amongst enterprises and creators. In 2020, the Intellectual Property Office of Singapore (IPOS) and Singapore Exchange (SGX) piloted a programme, the Intangible Disclosure Evaluation and Audit Scheme (IDEAS), to help enterprises communicate the value of their IA/IP to stakeholders and investors.

## Osteopore International on local going global

Biomedical company Osteopore International is a Singapore homegrown company specialising in 3D-printed bioresorbable scaffolds that leverage the patient's healing capacity to regrow new bone and tissue. With over 50,000 implants in wide-ranging applications including surgeries to correct cranial congenital disabilities, Osteopore has changed the lives of patients worldwide. Protected early on by patents, Osteopore's products are distributed globally.

A few years back, the company faced the same dilemma as many innovative companies looking to grow. The business was doing well and management intended to expand to new markets, which required additional funding. Faced with various options to raise funds, while negotiating R&D collaborations, management realised that a holistic IA/IP strategy was needed to support the next stage of growth.

Osteopore's priority was to ensure that as it opened up its business to potential collaborators, its IP rights were secured and able to support Osteopore's business plans. Filing a new patent was an option but management was aware of the need to disclose the invention in a patent application and the costs for enforcing patents.



IPOS International helped to provide clarity on management's plans, and suggestions on how Osteopore could prioritise resources to maximise the value of their IA/IP and address potential risks. This helped Osteopore better manage their IA/IP to grow the business.

Today, Osteopore is listed on the Australian Securities Exchange (ASX) and is well regarded as a global leader in 3D-printed bioresorbable implants. It continues to reside its core R&D and manufacturing function in Singapore, and supports manpower initiatives such as the Professional Conversion Programme (PCP) to help mid-career PMETs enter the biomedical science sector.

While past efforts have helped enterprises to grow through IA/IP, several gaps remain, namely:

- Enterprises require better support in accessing IA/IP solutions providers.
- Many enterprises still view IA/IP as a legal construct, and not as a business enabler in taking their ideas and new products/services to the market.
- Enterprises need help in understanding, valuing, and unlocking the value of their IA/IP assets.

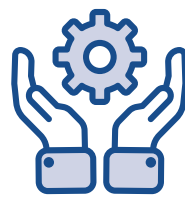
We will look into three key areas to help enterprises to better use their IA/IP for growth:



Increase enterprises' access to IA/IP advisory and IA/IP-related services.



Work closely with industry partners to build IA/IP awareness and competencies.



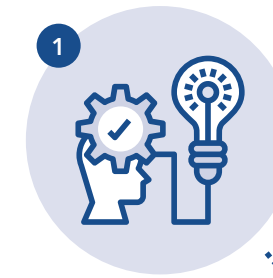
Support enterprises in deriving and maximising value from IA/IP.

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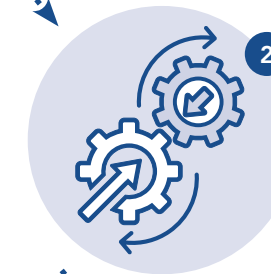
## INCREASE ENTERPRISES' ACCESS TO IA/IP ADVISORY AND IA/IP-RELATED SERVICES

Our agencies will step up efforts and direct more resources to increase enterprises' access to IA/IP services.

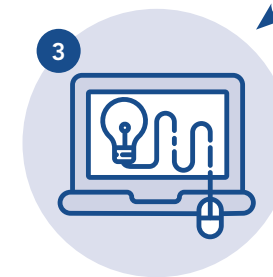
We will leverage whole-of-government touchpoints to make IA/IP resources more accessible. Enterprises embarking on technology innovation can access IA/IP resources, including IA/IP management business guides, training courses on IA/IP, and consultation sessions with IA/IP advisors through enterprise-centric platforms such as Centres of Innovation and SME Centres.



Enterprises must be equipped with the necessary knowledge and capabilities to unlock the value of their IA/IP assets.



The government will also increase our company-specific engagements to support enterprises, especially those in IA/IP-intensive sectors, to jumpstart their IA/IP journey.



We will also create an enterprise-centric online platform, IP Grow, to give enterprises better access to professional IA/IP services. IP Grow will help enterprises identify IA/IP challenges in their business journey and connect them to the right IA/IP service providers and solutions. It will also build a network of IA/IP-related professionals across the innovation ecosystem in and beyond Singapore, while promoting the providers to global markets.

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## Centres of Innovation (COIs)

SMEs embarking on technology innovation can tap on an array of ready resources available at one of the nine COIs.

From laboratory facilities to consultancy and training courses, enterprises can receive assistance in developing and testing technology projects. The centres, set up in partnership with selected polytechnics and research institutes, offer a one-stop hub for different industries, including:

- Aquaculture,
- Energy,
- Electronics,
- Supply chain management,
- Environment and water,
- Food,
- Materials, and
- Precision engineering.

## SME Centres

Enterprise Singapore (ESG) has teamed up with five trade associations and chambers to set up a network of 12 SME Centres.

Business Advisors at the SME Centres will work with SMEs to identify solutions to overcome challenges and ways to grow their businesses. This includes facilitating referrals to IPOS and other professional services as required. Assistance offered includes:

- Advisory in areas such as digitalisation, productivity, and human resource in order to enable business growth.
- Insights on ways to improve business capabilities through capability workshops.
- Relevant referrals to partner organisations to facilitate collaboration, business matching, and specialised advice.

## WORK CLOSELY WITH INDUSTRY PARTNERS TO BUILD IA/IP AWARENESS AND COMPETENCIES

To help local enterprises capture new business opportunities and emerge stronger through innovation, we will look to forge deeper and sustained public-private partnerships.

IPOS and the Singapore Business Federation (SBF) have jointly developed the Workforce for IP-Savvy Enterprises (WISE) programme, a structured initiative to help enterprises build their foundational IA/IP knowledge, access preliminary IA/IP advice, and be plugged into the global IA/IP network. We will be working with our industry partners to increase the effectiveness and reach of the WISE programme.

### WISE Programme

As the future economy becomes increasingly driven by innovation, IA/IP is key for businesses seeking a sustainable competitive edge. It is essential that enterprises are able to identify, protect, and manage their IA/IP.

One company that has benefitted from the WISE pilot run is Cyclect, an engineering and construction solutions provider driven by innovation and sustainability. Michael Khong, Head of Automatic Robotics Technologies, said that the training component of WISE enabled him to better strategise his work around IA/IP considerations. The training course helps enterprises to better appreciate how IA/IP is involved in the different stages of the innovation cycle, and how IA/IP should be integrated as a key part of the business strategy.



Even in the face of the global COVID-19 pandemic, IA/IP remains critical for enterprises to commercialise their ideas and achieve market success. SBF works with partners, including IPOS, to help enterprises gain IA/IP management capabilities, to more effectively bring their ideas and innovation to market.”

### Mr Lam Yi Young

Chief Executive Officer,  
Singapore Business Federation

## About PatSnap



PatSnap provides a world-leading innovation intelligence platform, enabling innovators to access the market, patent, and technology intelligence needed to take products from ideation to commercialisation. PatSnap is used by more than 10,000 customers in over 50 countries, spanning multiple industry sectors such as agriculture, chemicals, life sciences, professional services, aviation and aerospace, and education. PatSnap's team of more than 700 employees work from its global headquarters in Singapore, London, and Toronto.

PatSnap's platform provides patent analytics as a service, bringing together its industry-leading innovation intelligence platform augmented with expert IP analysts to provide bespoke intelligence for enterprises. In the fastest growing areas of technology, PatSnap can capture early warning and current insights to provide users with the most actionable intelligence. This ensures users of PatSnap's patent analytics service are one step ahead of emerging threats and competitors. PatSnap helps businesses to chart their IP protection, management, and risk strategies, thereby enabling businesses to maximise their returns on investment in R&D.



Companies around the world are under pressure to increase the pace of innovation. And while trillions of dollars are spent on R&D every year, the returns are dwindling. Our AI-powered technology helps to address this issue by analysing and connecting the key relationships between millions of unstructured data points across disparate data sources to deliver IP insights that guide R&D decisions and help accelerate the time it takes to bring new innovations to market.”

### Mr Jeffrey Tiong

Founder and CEO, PatSnap

## Growing with Resilience through InTangibles (GRIT)

We will also enhance our sector-specific engagements to build up IA/IP awareness amongst businesses and communities. GRIT is a key inter-agency initiative<sup>3</sup> to support businesses and communities across different sectors (e.g., the arts & entertainment, tourism, and education) in bringing their ideas and IA/IP to the market. GRIT offers a range of sector-specific engagements,

resources, and training to help equip businesses and communities with IA/IP knowledge and skills tailored to address their individual IA/IP challenges. A one-stop resource webpage<sup>4</sup> has been developed under GRIT to provide easy access to public education materials and whole-of-government support schemes and grants. Creators and innovators may look forward to an interactive online module on IP and Digitalisation to achieve a baseline understanding of IP issues in the digital space.

## BooksActually pivoting their business online

BooksActually, an independent bookstore specialising in fiction and literature, participated in the GRIT initiative. A mainstay of the Singapore literary community, BooksActually was home to shelves of vintage objects and books, three beloved cats, and even a book vending machine. Its shop floor was often packed on weekends, when literary events such as book launches used to be held.

Things changed in early 2020, when BooksActually was forced to shut its brick-and-mortar store amidst COVID-19 and move to online sales. After half a year, BooksActually's owner, Kenny Leck, decided to transit to a fully-online bookstore. This move has broadened the store's reach beyond Singapore's borders, with orders from international customers now making up more than 40% of sales, up from 20% previously.

Recognising the importance of brand protection, BooksActually filed a trade mark application in May 2020 to secure its brand name and logo as it pivoted online. It also continued to maintain its high-touch, personalised shopping experience

by directly replying to customer enquiries (as opposed to relying on computer-generated replies), and using specially-designed packaging paper inspired by BooksActually's three cats – Cake, Lemon, and Pico. These small moves have enhanced the store's reputation for attentiveness and helped it to build goodwill, a key IA as it seeks to stand out in the increasingly crowded online space.

Heading into 2021, BooksActually continues to leverage its IA/IP to evolve its approach. It just launched its residency programme for Singapore-based artists to make use of its collaborative events space, and is experimenting with a digital literary festival (called #sglitftw) to reach out to the local literary community. Through successful management of its IA/IP, BooksActually has enhanced its reputation as a beloved bookstore, both physically and in the digital space.



<sup>3</sup> GRIT was launched in August 2020 by various government agencies including ESG, IMDA, IPOS, MCCY, MTI, NAC, STB, and Sport SG.

<sup>4</sup> Webpage can be found at <https://www.ipos.gov.sg/manage-ip/grit>.

## SUPPORT ENTERPRISES IN DERIVING AND MAXIMISING VALUE FROM IA/IP

Our aim is to develop a marketplace and ecosystem where innovative enterprises can bring their ideas and IA/IP to the market effectively. This involves the commercialisation of IA/IP, which takes place through productisation, licensing, or sale, among others.

### ■ Increase enterprise access to publicly-funded IA/IP for commercialisation

Singapore has committed S\$25 billion for R&D investment under the RIE 2025. Effective deployment of our R&D outputs, including IA/IP, to the market will enable us to capture greater economic benefits for Singapore.

### ■ Facilitate IA/IP transactions and financing

Many innovative enterprises and start-ups today are IA/IP-rich but tangible asset-light. IA/IP commercialisation, collateralisation, and financing can help enterprises unlock their IA/IP value to generate cashflow. Enterprises can also reap long-term benefits in the form of stakeholder confidence, risk-mitigation, increased competitiveness, and opportunities for collaboration and expansion.

We will support enterprises in three ways –

### 🔗 National IP Protocol



The updated National IP Protocol released in 2018 helps improve R&D collaborations between public agencies and enterprises, and expedites the transfer of publicly-funded new technologies to the market.

The National IP Protocol provides a standard and streamlined approach to managing IA/IP from publicly-funded R&D, to expedite IA/IP commercialisation. Businesses can now enjoy:

1. Streamlined access to government IA/IP and technology.
2. Business-friendly IA/IP terms.
3. Faster product commercialisation while balancing national interests.

An IP Working Group, comprising public agencies including NRF, A\*STAR, ESG, IPOS, and EDB, was set up to help public agencies and enterprises navigate the various IA/IP issues in public-private R&D collaborations. The IP Working Group works with public agencies to build IA/IP management capabilities to support the implementation of the National IP Protocol. The IP Working Group is currently working on template IP licensing and Research Collaboration agreements for public-private collaborations.

“

The National IP Protocol is a bold and decisive step forward to allow our local enterprises to harness the potential of valuable intellectual property created by public research performers for the good of Singapore. I am pleased to have been an integral part of the collective efforts of the public service come together over many months of careful deliberation in crafting the Protocol and perhaps more importantly, in its successful implementation towards achieving the desired outcomes. While the work is never finished, this milestone gives me much hope that we will continue to improve as we work together as One Public Service.”

### Mr Suresh Sachi

Deputy Chief Executive, A\*STAR

### 1 Provide IA/IP and technology platforms and connections to facilitate transactions

IA/IP and technology platforms facilitate IA/IP transactions by availing ready technologies and IA/IP to enterprises, and providing an avenue for enterprises to license and monetise their technologies and IA/IP. Such platforms can include IA/IP developed through publicly-funded R&D, and hence provide opportunities for enterprises to access such IA/IP for business growth and follow-on innovation.

For an IA/IP marketplace platform to thrive, awareness of its offerings, volume of available technology and IA/IP, and international connectivity are critical. Moving forward, we will explore closer linkages with IA/IP brokerage and disposal service providers in markets such as China, Europe, and the USA. This will develop alternative channels for lenders to recover returns on distressed IA/IP assets, and re-allocate them to fresh investments. It will also advance Singapore's value proposition in IA/IP financing and facilitate a more vibrant marketplace for transactions.

SIPS 2030 will support Singapore's broader aim of enhancing collaborations among the industry and public research communities. For instance, agencies will work together to facilitate commercial R&D collaborations and encourage more technology and IP licensing activity. One area of focus is to strengthen enterprises' IP licensing and commercialisation capabilities, through training and tools such as the recently released IP Licensing Guide, which was jointly developed by ESG, and the Licensing Executives Society (Singapore).



## IPI Singapore



Singapore autonomous driving solutions start-up MooVita and Dutch technology company Sioux Technologies are exploring ways to improve communications between autonomous vehicles and passengers. Brought together by IPI, they aim to address opportunities in smart nation applications.

IPI Singapore (IPI) is an innovation catalyst that accelerates enterprises' innovation process by providing them access to innovative ideas, technologies, and IP.

A subsidiary of Enterprise Singapore, IPI harnesses its strong multidisciplinary expertise and network of partners to facilitate technology matches that bring value and growth for enterprises. IPI also supports enterprises' innovation processes, including technology and IP commercialisation strategies and go-to-market plans.

Moving forward, IPI will continue partnering with companies to unlock their IPs and help them create new products and services. IPI will also improve its portfolio of services, grow its global innovation network, and expand the Innovation Advisors Programme to better serve enterprises.

## 2 Increase transparency and disclosure around IA/IP transactions

The second aspect of facilitating IA/IP transactions is transparency. As with other asset classes, information and transparency are essential to facilitate transactions. Currently, information around IA/IP transactions is scarce and often confidential. This can discourage and limit IA/IP transactions. Singapore can do more to capture data around IA/IP transactions and provide greater transparency. This will build traction and confidence in IA/IP transactions.

Moving forward, Singapore will strengthen our regulatory and corporate practices to improve the transparency and disclosure of IA/IP. We will also explore ways to encourage the recording of IA/IP transactions, e.g., licences and assignments, to improve IA/IP transaction data and over time, build enterprise and investor confidence in using IA/IP as collateral. We will also explore programmes or incentives for IA/IP owners to offer their dormant IA/IP for licensing or other commercial activities, including collaborations with existing IA/IP marketplace platforms.

## 3 Step up efforts to help enterprises access capital using their IA/IP

Singapore will also step up efforts to help innovative enterprises and start-ups access financing using their IA/IP. We will work with partners (e.g., banks and venture funds) to drive increased appreciation and assessment of IA/IP that better reflects the underlying risks and rewards of financing innovation-driven businesses. This will enable financiers to better identify good investments and allocate capital more efficiently. For example, we will look to incorporate assessment of IA/IP into the various enterprise financing schemes to support the due diligence process of capital raising.

Keeping ahead of the competition requires continuous innovation, which may require external sources of funding. Learn how your IA/IP can help your business secure grants, equity, and debt funding:

<https://iposinternational.com/business-guides/ipm-business-guide-unlocking-your-ips-financing-potential/>

## 3.2.

# DEVELOP A CREDIBLE AND TRUSTED IA/IP VALUATION ECOSYSTEM

IA/IP has become key to capturing value in today's digital economy, and by some estimates represents over half of global enterprise value. However, valuation and reporting of IA/IP are still nascent internationally, with uneven IA/IP valuation practices within and across economies. This inability to reliably value these critical assets hinders the ability of enterprises to use them for growth.

Credible and trusted IA/IP valuation will enable enterprises to unlock their IA/IP value. Similar to the valuation of tangible assets, e.g., property and commodities, IA/IP valuation is often a pre-requisite for IA/IP-related transactions, including IA/IP licensing, technology transfer, and collateralisation.

To develop a credible and trusted IA/IP valuation ecosystem, Singapore will start by putting in place relevant IA/IP valuation practice standards and guidelines. We aim to train and build a deep pool of IA/IP valuation professionals in Singapore. These initiatives will support Singapore's broader positioning as a trusted business and financial hub.



## SUPPORT IA/IP TRANSACTIONS THROUGH CREDIBLE IA/IP VALUATION GUIDELINES AND PRACTICE

Various IA/IP valuation standards and guidelines by international, regional, and local organisations exist. While these standards and guidelines are fairly homogenous in content, they can differ in:

1. The extent to which they are binding on users and providers,
2. Scope and depth, and
3. Objectives.

As a result, there is no commonly accepted IA/IP valuation practice by the industry.

Singapore will spearhead an international IA/IP valuation panel to develop IA/IP valuation guidelines based on international valuation standards that can be widely adopted internationally.

Given its cross-border nature, IA/IP valuation guidelines will need to be in sync with evolving international practices and norms, and inter-operable with practices in other jurisdictions. Singapore will spearhead an international IA/IP valuation panel to develop IA/IP valuation guidelines based on international valuation standards that can be widely adopted internationally.

The international IA/IP valuation panel will comprise representatives from various national Valuation Professional Organisations (VPOs), with rights and responsibilities for developing the valuation profession in their countries. The panel will identify gaps in existing international IA/IP valuation practices and address them by developing IA/IP valuation guidelines (focusing on key asset classes).

To ensure the relevance and use of the developed IA/IP valuation guidelines across regional and international markets, we will work with the relevant regional and international IA/IP organisations and bodies to promulgate these guidelines.

To complement our work on developing IA/IP valuation guidelines, we will also build up a pipeline of accredited IA/IP valuers as part of the enabling infrastructure to support IA/IP valuations for enterprises.

We will introduce accreditation for IA/IP valuers to lift quality standards, ensure uniform application of standards and allow buyers of IA/IP services to identify trained IA/IP valuers. As IA/IP valuation is closely linked to business valuation, there will be potential synergies with the Institute of Valuers and Appraisers, Singapore's (IVAS) existing business valuation certification programme, i.e., the Chartered Valuer and Appraiser (CVA) programme.

We will concurrently encourage valuers with adjacent skills to undergo IA/IP valuation accreditation. Together with IVAS and the relevant regulators, we will promote the CVA designation to key valuation service providers (e.g., accountancy and financial advisory firms).

## SUPPORT IA/IP TRANSACTIONS WITH BETTER IA/IP DISCLOSURES

Together with efforts in IA/IP valuation guidelines and accreditation for IA/IP valuers, encouraging IA/IP disclosure by enterprises will reduce informational asymmetry in the ecosystem and support IA/IP transactions.

Internationally, there exists a range of IA/IP reporting methodologies promulgated by academics and international organisations, but no jurisdiction has developed a standardised IA/IP reporting framework.

However, there have been growing calls for better information on IA/IP. Studies on the adequacy of IA/IP disclosure have been conducted by the United Kingdom Financial Reporting Council (UK FRC) and the European Financial Reporting Advisory Group (EFRAG). The International Accounting Standards Setter (IASB) also recognises the growing importance of IA and their absence in the balance sheet. In 2019, the IASB shared its plans to improve information on IA/IP through management commentary.



To build Singapore into a market with enhanced IA/IP information conducive for IA/IP-based transactions, ACRA and IPOS will co-lead an inter-agency committee with the technical expertise to develop an IA/IP disclosure framework/guidelines. The inter-agency committee will work with the private sector to roll out an effective IA/IP disclosure framework/guidelines to help Singapore enterprises better communicate the value of their IA/IP.

CHAPTER **DEVELOP  
4 GOOD JOBS  
AND VALUABLE  
SKILLS IN IA/IP**



**Build an IA/IP-savvy workforce  
and base of IA/IP talent**

- Equip our future workforce with the necessary IA/IP skills and knowledge to perform their roles well
- Executive training for working professionals and senior executives to deepen capabilities in IA/IP and capitalise on it for business growth



**Create good job opportunities  
for Singaporeans**

- Skills Framework for IP
- Integrate IA/IP skills and competencies in job roles involved in innovation



**Bolster Singapore's international  
reputation for quality IA/IP skills**

- Develop the national standard in IA/IP management
- Promote recognition of the IA/IP management standards

**4.1.** IA/IP skills are increasingly important in an innovation-driven economy. Developing a talented Singapore workforce skilled in IA/IP management will help enterprises manage and obtain value from their IA/IP, and seize business opportunities.

## INCREASING RELEVANCE OF IA/IP SKILLS IN OUR INNOVATION ECONOMY

We aim to create  
**job opportunities**  
for Singaporeans and increase  
the value of their IA/IP skills  
and competencies.

Several programmes were launched over the past few years to build a steady pipeline of IA/IP professionals to support the country's IA/IP manpower needs. For example, the Intellectual Property Office of Singapore (IPOS) and Workforce Singapore (WSG) launched the IP Professional Conversion Programme (PCP) in 2017 to equip mid-career professionals with IA/IP knowledge and enable them to take on new job roles in this area. IPOS also collaborated with the Singapore University of Social Sciences (SUSS) to roll out the Master of IP and Innovation Management (MIPIM) programme. This multidisciplinary graduate programme integrates IA/IP knowledge and skills from the legal, business, and technology domains. In 2019, IPOS, SkillsFuture Singapore (SSG), and WSG jointly launched a first of its kind Skills Framework (SFw) for IP to map out the career pathways for IA/IP professionals.

While these initiatives have supported the development of specialised IA/IP professional roles, there is an increasing need to consider how IA/IP skills can be introduced to the wider workforce as Singapore attracts more knowledge-intensive industries.

We aim to create good job opportunities for Singaporeans and increase the value of their IA/IP skills and competencies. We also hope to gain international recognition as a standard-setter for IA/IP skills through our national efforts. In this chapter, we outline the following strategic outcomes:



## Promoting IA/IP education and training in Singapore



SUSS has also introduced basic IA/IP courses for undergraduates, graduates (non-IP Masters students), and working professionals. This equips students and working professionals with IA/IP knowledge and skills for the workplace and to deal with IA/IP professionals.

“While demand for IA/IP training is mainly by students from science, engineering and technical backgrounds, we are increasingly seeing students from business backgrounds express an interest in this field. Professionals with medical, legal, social science, and arts backgrounds have also enrolled in our programmes, and we are actively looking at new ways to promote IA/IP as a horizontal skillset.”

### Associate Professor Eric Gan Kok Wah

Head, IP and Innovation Management Programme,  
School of Business, SUSS

The Singapore University of Social Sciences (SUSS) is a key partner in developing and promoting IA/IP education and training in Singapore. Its School of Business launched the Master of IP and Innovation Management and Graduate Diploma in IP and Innovation Management with specialisation in Patent Agency (MIPIM and GDIPIM respectively) programmes in 2017<sup>1</sup>. Both programmes provide stackable pathways for students to acquire a Graduate Certificate before attaining Graduate Diploma and Masters qualifications.

There are also efforts to infuse IP modules into other programmes. For example, the Graduate Diploma in IP and Innovation Management, with specialisation in IP Management (GDIPIMM), could be paired with the Graduate Diploma in Management since July 2020, to earn the Master of Management degree. There are upcoming plans to integrate the GDIPIMM with other graduate diplomas as part of the Master of Social Science programme in 2021.

<sup>1</sup> Both the MIPIM and GDIPIM programmes offer three specialisation tracks to suit learners' professional needs: Patent Agency, IP Management, and IP Technology.

## BUILD AN IA/IP-SAVVY WORKFORCE AND BASE OF IA/IP TALENT

An IA/IP-savvy workforce possesses a basic understanding of IA/IP matters and is able to apply such knowledge and skills at work. Training the current and future workforce is integral in building an IA/IP-savvy workforce. The following initiatives cover Pre-Employment Training (PET) and Continuous Education Training (CET).

### Equipping undergraduate students with basic IA/IP management skills

Yong Yuan Yen is a final year student at Nanyang Technological University (NTU)'s School of Materials Science and Engineering. Despite her choice of discipline, she has always been interested in business, and sought to apply the problem-solving and analytical skills she honed as an engineer in this area. Yuan Yen was thus delighted to be offered the chance to read IP modules as part of her undergraduate studies.

The Innovation and IP specialisation track was introduced under NTU's School of Materials Science and Engineering in 2015, and included IP modules conducted by IPOS International. These modules were subsequently made available under the School of Chemical and Biomedical Engineering's IP specialisation track in 2019. Through the modules, undergraduates such as Yuan Yen gain practical knowledge of IA/IP management, which will enable them to identify IA/IP-related issues and apply good IA/IP management practices in the workplace.



Yuan Yen realised the importance of IA/IP when she had to deal with avoiding infringement, handling confidential information, and negotiating licensing arrangements during her internship at an oilfield service provider. This experience piqued her interest to learn more about IA/IP. Through the IP modules, she learnt real-world applications on how to analyse patents and value innovation, which could then be used to guide business strategy.

“

I believe that IA/IP is not limited to lawyers, engineers or business people. The world of IP and intangible assets is so multi-faceted that it requires the coalescence of many different mindsets and outlooks. I am a firm believer that more students should be exposed to IA/IP and given the opportunity to specialise in this field. Maybe they will find as much joy in it as I do.”

### Yong Yuan Yen

Final Year Student, School of Materials Science and Engineering, NTU

## EQUIP OUR FUTURE WORKFORCE WITH THE NECESSARY IA/IP SKILLS AND KNOWLEDGE TO PERFORM THEIR ROLES WELL

At the PET level, we will develop IA/IP programmes for full-time students in our institutes of higher learning (IHLs) - the Institute of Technical Education (ITE), polytechnics, and universities. For example, IPOS launched the Future Leaders in INnovation Transformation (FLINT) initiative in August 2019, in partnership with the IHLs, to provide a structured IA/IP programme and nurture the next generation of IA/IP-savvy youths.

We will also engage the IHLs to support key innovation sectors in Singapore, such as biomedical science, electronics and precision engineering, financial services, and infocomm technology and media, to address the unique IA/IP requirements and considerations of each of these sectors.

## EXECUTIVE TRAINING FOR WORKING PROFESSIONALS AND SENIOR EXECUTIVES TO DEEPEN CAPABILITIES IN IA/IP AND CAPITALISE ON IT FOR BUSINESS GROWTH

Traditionally, IA/IP is seen as a legal or technical function and much of our efforts to-date have focused on the continuous professional development of the legal community in Singapore through accredited training by the Singapore Institute of Legal Education (SILE). Increasingly, IA/IP considerations are becoming an essential part of strategic management decisions as they impact shareholder value. Strategic IA/IP management has far-reaching effects on an enterprise's product development, go-to-market decisions, and strategic partnerships with implications for its bottom line.

There is, however, a general lack of awareness of how IA/IP considerations may enable management to make more informed business decisions and strategies. It is important for senior business leaders to understand the value of IA/IP given the growing importance of good IA/IP management practices in driving business growth.

Equipping enterprise leaders with IA/IP management skills and knowledge will enable them to use their IA/IP assets more effectively. We will explore training programmes (IA/IP strategy, commercialisation and risk management) that ride on existing programmes for enterprise leaders, such as the Enterprise Leadership for Transformation (ELT) programme.

## CREATE GOOD JOB OPPORTUNITIES FOR SINGAPOREANS

Despite increasing awareness of the importance of IA/IP and its role as a strategic business driver, many enterprises are today not at the scale where they require a full-time dedicated IA/IP headcount to manage the IA/IP in-house. One way to bridge this gap is through the diffusion of IA/IP skills, where non-IA/IP professionals are equipped with the necessary IA/IP skills to handle IA/IP considerations in relation to their daily work. An example would be researchers being able to perform IA/IP due diligence checks before embarking on R&D projects.



## SKILLS FRAMEWORK FOR IP

Skills Framework for IP, which builds on the IP Competency Framework, supports Singapore's IA/IP manpower strategies by providing information on the sector; career pathways; occupations and job roles; existing and emerging skills; and training programmes for skills upgrading and mastery.

This information will enable enterprises to analyse and plan for their IA/IP manpower more effectively.

### Building IA/IP management capabilities among working professionals

Jen Lee is a director at IDV Concepts Asia Pte Ltd. Her journey towards acquiring IA/IP skills began serendipitously when a friend suggested looking at ways to protect her idea of a full-fledged "ERP system" (known as CADENA) for her manufacturing business. This led her to find out more about IP protection such as trade marks, copyright, and patents.

She signed up for the IP Academy's course on "Applying Fundamentals of IP" and was pleasantly surprised to learn that IA/IP considerations were not just for large enterprises. Indeed, it was important for SME leaders like her to take time to understand and protect their inventions. The programmes exposed her to like-minded learners, who came to appreciate that IA/IP considerations were not "giant leaps" that were difficult to achieve, but could be as simple as registering a trade mark to protect their brand before market entry.



Looking back, she is glad to have invested in acquiring IA/IP skills, which allowed her to develop an IA/IP strategy for her business. Jen has since applied for a patent for CADENA, and is looking at new opportunities to grow her business through IA/IP.

“We became aware that Singapore companies like ourselves who are Proudly Local, Going Global should tap on our Singapore brand to protect our very own locally-made products. Our Singapore brand has an intrinsic value which many of us did not realise until we walked down the path to acquire IA/IP knowledge and skills.”

#### Jen Lee

Director, IDV Concepts Asia Pte Ltd

## INTEGRATE IA/IP SKILLS AND COMPETENCIES IN JOB ROLES INVOLVED IN INNOVATION

We will continue to engage key industry players of various innovation sectors to integrate the relevant IA/IP skills and training programmes into their respective job roles and career maps (such as updating the sectoral Skills Framework or equivalent), and to drive the adoption of such skills. This helps to enhance the recognition of IA/IP skills as an emerging area that is relevant across different industry sectors. More importantly, it provides structured guidance for individuals working in each of these sectors to identify what IA/IP skills are relevant to their career progression and how to acquire them.

# BOLSTER SINGAPORE'S INTERNATIONAL REPUTATION FOR QUALITY IA/IP SKILLS

**4.4.** Today, there is a gap in the industry as there is no baseline quality and clear standard on what constitutes quality IA/IP management. With the current knowledge-driven economy, enterprises need to be able to access quality IA/IP management and strategic advisory services. Without having a baseline quality standard, it is difficult to make that assessment when hiring talents or services.



Establishing quality standards for IA/IP skills will give enterprises in Singapore confidence when they hire IA/IP manpower or engage IA/IP service providers. It also benefits individuals by providing a differentiating quality mark. For Singapore, such standards may attract talent from the region seeking to be accredited to the Singapore standard, and strengthen our international standing in this field.

## DEVELOP THE NATIONAL STANDARD IN IA/IP MANAGEMENT

We will be working with industry players and other stakeholders to co-develop a set of national standards that is recognised by the industry. As adoption is key to success, we will explore possible incentives to drive national adoption in the initial phase, with the long-term plan for the standards to be led and administered by the industry.

## PROMOTE RECOGNITION OF THE IA/IP MANAGEMENT STANDARDS

As outlined in chapter 2, one of the desired objectives is to position Singapore as a node between ASEAN and the world. This involves fostering a regional community of technical experts who can service increased innovation activities in the region.

Having a set of internationally-recognised standards in place can create opportunities in the region for accredited Singapore professionals and training providers.

A set of internationally-recognised standards can create opportunities in the region for accredited Singapore professionals and training providers.



CHAPTER

# 5

## OUR FUTURE WITH IP



Supporting Singapore's future economic growth



Working alongside stakeholders

5.1.

## SUPPORTING SINGAPORE'S FUTURE ECONOMIC GROWTH

IA/IP is increasingly critical for enterprise and economic growth. SIPS 2030 will be instrumental in supporting Singapore's economic plans, and our national goals in areas such as research, innovation and enterprise.

SIPS 2030 will support Singapore's refreshed economic strategy in a post-COVID-19 world. Specifically, SIPS 2030 will strengthen Singapore's position as a global-Asia node of technology, innovation, and enterprise. Our strong IA/IP regime will help us attract international research and innovation investments, create good jobs for Singaporeans, and contribute to economic growth. Our focus on building a credible and trusted IA/IP valuation ecosystem will support the growth of our professional services sector and strengthen our position as a finance hub.

SIPS 2030 will also support many of Singapore's national plans. For example, SIPS 2030 will support our RIE 2025 objectives, as IA/IP is a core enabler across each of the four RIE domains – namely: manufacturing, trade and connectivity; human health and potential; urban solutions and sustainability; and Smart Nation and digital economy. SIPS 2030 will also complement work on the future economy and industry transformation, particularly in innovation and internationalisation. In addition, SIPS 2030 will support our National Artificial Intelligence (AI) Strategy by ensuring that our IA/IP regime is conducive to developing and commercialising new AI innovations.

SIPS 2030 will also support Singapore's economic and industry transformation efforts set out by the Future Economy Council and Emerging Stronger Taskforce. In particular, SIPS 2030 will help build strong industry clusters anchored by competitive enterprises. A key focus of SIPS 2030 is to help enterprises better strategise, manage, and value their IA/IP for growth. SIPS 2030 will also build critical IA/IP capabilities and skills, ensuring that Singapore's workforce remains relevant, agile, and competitive.



CONCLUSION

## WORKING ALONGSIDE STAKEHOLDERS

As a cross-cutting strategy with long-term implications on businesses, individuals, and the broader innovation community, SIPS 2030 cannot be accomplished through the government's efforts alone. It requires the active participation of our stakeholders and partners to co-create and co-deliver the various initiatives. This is the SG Together spirit. To this end, we owe a debt of gratitude to everyone who has stepped forward to join us on this journey.

Over the past year, more than 1,000 stakeholders have contributed to SIPS 2030 through various channels. These range from webinars, focus group discussions, public surveys, in-depth expert roundtables, and one-on-one engagement sessions. Many of you have generously shared your expertise, feedback, and aspirations with us, enabling us to better purpose the plans outlined in this report.

The conversation is only just beginning. As we set our sights on our Future with IP, we will continue to work closely with you to ensure the successful implementation of SIPS 2030. We warmly welcome your active participation and look forward to what we can achieve together in the years to come.

If you have any questions or feedback, please get in touch with us at [ipos\\_enquiry@ipos.gov.sg](mailto:ipos_enquiry@ipos.gov.sg). Thank you.

### COMMITTEE MEMBERS



### SUPPORTING AGENCIES



Monetary Authority  
of Singapore



### MADE POSSIBLE IN





# CHARTING OUR FUTURE WITH IP OVER THE NEXT DECADE

SINGAPORE IP STRATEGY  
2030 REPORT

Published April 2021

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