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**Council for Trade-Related Aspects of
Intellectual Property Rights**

**EXTRACT FROM MINUTES OF
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INTELLECTUAL PROPERTY RIGHTS**

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**ITEM 12: INTELLECTUAL PROPERTY AND INNOVATION: THE SOCIETAL VALUE OF IP IN
THE NEW ECONOMY – IP and NEW BUSINESS**

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12 INTELLECTUAL PROPERTY AND INNOVATION: THE SOCIETAL VALUE OF IP IN THE NEW ECONOMY – IP AND NEW BUSINESS

12.1 United States of America

335. The United States is pleased to co-sponsor this agenda item and contribute to the discussion of "The Societal Value of IP in the New Economy – IP and New Business." I would also like to thank Switzerland, Australia, the European Union, Japan, Republic of Korea, Chinese Taipei, and Brazil for co-sponsoring this item.

336. The day before this meeting, the Friends of IP and Innovation sponsored a side event where speakers highlighted the incentivizing role of IP in the areas of economic growth, development, societal benefits as well as a catalyst for new businesses. This featured economic perspectives and innovators who have relied on IP to produce game-changing technology. We thank everyone who came and supported the event.

337. As we have discussed during the course of the year, there is a critical nexus between business development, intellectual property, and economic growth. IP-intensive industries support at least 45 million US jobs and contribute more than USD 6 trillion to, or 38.2% of, US gross domestic product (GDP).

338. The importance of intellectual property is no less for small and medium sized companies, including start-ups, which are the backbone of the American economy. The United States' 30 million SMEs have accounted for nearly two-thirds of net new private sector jobs in recent decades. And our youngest companies – those less than one year old – have created on average 1.5 million jobs annually over the past three decades.

339. These figures indicate that creating the conditions for new businesses and start-ups to succeed is key to America's future economic success. Entrepreneurship is critical to both the United States and the global economy.

340. The United States Government agencies support entrepreneurs throughout every phase of the business-life-cycle: in addition to promoting transparency and rule of law, they provide for patent, trade secret, trademark, copyright and other IP protections to allow entrepreneurs to protect their work and bring it to the marketplace.

341. For new businesses, IPR protection can often help determine whether a firm survives and thrives. In particular, the United States manufacturing firms that use intellectual property are a boon for the economy.

342. In the case of SMEs, trade secrets may play a critical role in the development of innovation and are among the primary forms of intellectual property that companies use to protect their innovations, as smaller firms tend to have fewer resources and limited expertise and capacity for managing intellectual assets using formal IPRs.

343. Patent protection also plays a critical role for the development of new companies. Start-ups, as compared to larger firms, may factor into their growth strategies, considerations such as the marketing advantages that ensue from being able to claim patent protection.

344. Studies have shown that SMEs tend to use their patents more actively than large firms and smaller companies generally license a higher proportion of their portfolios than do larger ones. A recent study out of the UK on the survival of new technology-based firms also concludes that patent development during firms' initial years is critical to survival.

345. Registering and maintaining relevant trademarks can also help ensure that a firm rightfully enjoys the benefits of its investment in creating a distinctive brand, including brands that feature innovative products and services. Without this legal protection, an unscrupulous competitor may attempt to usurp the goodwill that another company has worked hard to create.

346. Traditionally, research on the role of IPRs for small firms and start-ups has been patent-focused. Recently, however, research on trademarks has gained momentum and has established that trademarks are a similarly important form of IPR, particularly for start-ups.

347. Recent studies have shown that start-ups are more likely to file for trademarks instead of patents when entering markets with a higher market concentration. The same study also shows that start-ups that are primarily active in business-to-consumer markets are more likely to file trademarks than start-ups primarily in business-to-business markets.

348. Exporters are significantly more likely to rely on IPR than other firms. Firms holding patents in the United States account for over 90% of the United States exports. Similarly, innovative firms are better exporters. An examination of the performance of 1700 firms before and after acquisition of a first patent found that, whereas the number and value of firms' export transactions remained constant up to the date of the patent acquisition, the number and value of export transactions rose afterward.

349. Industries in the United States that rely on IP are ones that flourish the most. One example is the copyright industry, which as a whole, generates jobs, and produces economic growth, both in the United States, and globally. Copyright protection plays a key role in a large number of companies. Even those not engaged in content creation and distribution often have a strong need to protect important materials via copyright.

350. In the United States, copyright-intensive industries supplied 5.6 million jobs and copyright industry workers earn on average 38% higher wages than other US employees. The United States music industry specifically, supports 1.9 million American jobs and added USD 143 billion in value to the US economy in 2016, increasing over 37% since 2012. Many creative artists are small businesses, who rely on copyright protection to improve their livelihood.

351. The United States Government wants to make sure new businesses have knowledge of, access to, and benefit from, existing government resources aimed at helping start-ups and new businesses realize international opportunities.

352. Many start-ups, in particular technology start-ups, face unique challenges, so counselling from government or private sector organizations can make a big difference.

353. The International Trade Administration (ITA) at the United States Department of Commerce launched an initiative entitled "Start-up Global" in partnership with the Global Innovation Forum to provide focused advice to small and early-stage American companies looking to grow their businesses by engaging in the global marketplace.

354. Separately, the Global Entrepreneurship Summit, sponsored by the United States State Department, aims to showcase inspiring entrepreneurs and investors from around the world creating new opportunities for investment, partnership, and collaboration; it connects American entrepreneurs and investors with international counterparts to form lasting relationships; and highlights entrepreneurship as a means to address some of the most intractable global challenges.

355. The Global Entrepreneurship Summit was held for the first time in South Asia in Hyderabad, India, last year and this year will be in The Hague.

356. These programmes aim to increase survival and success rates of technology-based start-ups. The programmes also enable technology-based start-ups to scale their growth faster. Both of these goals are achieved by encouraging start-ups to expand into international markets where there is demand for their products & services and potentially less competition.

357. Other USG agencies, such as the United States Patent and Trademark office, offer programmes for new businesses and start-ups to protect their IPR.

358. Through the Patent Pro Bono Programme, the USPTO partners with non-profit organizations and law schools to establish regional programmes throughout the country. By working with their regional patent pro bono programme, under-resourced independent inventors and small businesses

are eligible for free legal advice and representation to help them file and prosecute patent applications.

359. International cooperation also plays an important role for start-up development and growth. The Americas Competitiveness Exchange, is done in coordination with United States Department of Commerce's International Trade Administration (ITA) and Economic Development Administration (EDA), in coordination with the United States Department of State and the Organization of American States (OAS), and brings 50 representatives from 24 countries throughout the Western Hemisphere to explore global and regional partnerships and economic development opportunities to establish new global commercial relationships.

360. Furthermore, the United States and the European Union work together to make sure their start-ups and small businesses share best practices about how to protect their IPR in each other's markets. The EU-US SME Best Practices Workshops are held annually and are an ongoing opportunity for small businesses to engage directly and discuss trade topics of interest with United States and European Union officials and small and medium businesses and associations from both sides of the Atlantic.

361. IP protection also plays a big role in new emerging technologies and start-ups that are quickly integrating into the global economy.

362. Marvin Caruthers, Inventor of Chemical Synthesis of DNA, and co-founder of Amgen and Applied Biosystems testifies to the importance of IPR to biotechnology development. He emphasizes that the biotechnology industry would not exist without patents, as he must have patents to protect his technology in order to attract investors, as they want to know what the company is bringing to the table.

363. Artificial intelligence is another emerging area focusing in IPR protection, used mostly in the tech industry, producing new products and services every year. Artificial intelligence (AI) will redefine how individuals think about daily life, and start-ups will need to start leveraging AI to get ahead.

364. The USPTO offers programmes and tools for businesses to learn to protect AI-related inventions, navigate the quickly evolving sector, and learn about the United States approach as well as how other major economies are addressing AI in terms of intellectual property rights protection.

365. New enterprises, start-ups, and small businesses, are the core of the United States and global economies. As we have discussed over the past year, the nexus between trade, IPR, and economic growth is profound, as intellectual property not only fosters new business, but it creates new jobs and leads to higher wages.

366. IPR is an integral part of our local American innovative economy, and through trade and investment, IPR contributes to the economic growth of the global economy, improving lives and society as whole. We look forward to hearing from other Members on this topic.

12.2 Switzerland

367. Switzerland is pleased to co-sponsor this topic in partnership with Australia, Brazil, the European Union, Japan, Republic of Korea, Chinese Taipei, and the United States. We welcome the opportunity to exchange experiences on how intellectual property contributes to creating new business. This is an important topic for the WTO, whose goals are, among others, to promote trade between and economic development of its Members.

368. For large companies, the protection of intellectual property is often a cornerstone of their business strategy. They consider IPRs key to protecting their intellectual property, investment and reputation against unfair competition, misuse and freeriding. At least in innovation-driven industries, intellectual property rights are often the most valuable assets in their balance sheet. For small companies and start-ups, the use of IP as an essential asset-building instrument is not always that obvious. There may be a lack of awareness. Or the start-up may know about the potential value of IP rights but shies away from the administrative work and financial costs associated with seeking IP

protection – or falsely assume that they can deal with securing IP rights at a later stage in their business development.

369. My delegation would now like to share some experience we have made in Switzerland with regard to the three aspects addressed in IP/C/W/648 on how IPR can help new business drive their success.

370. In 2015, more than 580,000 companies were located in Switzerland. 40,000 new businesses started operations in the same year, with the majority in the services sector. The economic significance of these newly founded companies does not only lie in the number of newly created jobs. It lies also in the business momentum, the value-added for the economy and society they generate, including intangible assets such as IP. Founding a start-up may be the initiative of an independent entrepreneur. Frequently, however, they are the result of a spin-off from research institutes or universities.

371. Government activity and policies as well as the legislator can best serve research initiatives and entrepreneurs by providing favourable business conditions, i.e. lean procedures for the creation of new businesses, an attractive tax system, and not least: clear, reliable legislation for adequate and effective protection of intellectual property and for licensing IP rights. This provides a safe and effective regulatory framework for new businesses or university spin-offs entering the market and doing trade with their innovations.

372. We would like to illustrate this with two examples of new businesses that were the result of the partnership between academia and Innosuisse, Switzerland's innovation promotion agency.

373. Innosuisse, the Swiss Government's Innovation Agency supports science-based innovation in the interest of industry and society, with the aim of laying the groundwork for successful Swiss start-ups and their innovative products and services. Its long-term mission and goal is to contribute with its activity to a prosperous and sustainable economy in Switzerland. The activities of Innosuisse involve promoting entrepreneurial thinking by providing targeted and personalised training to start-ups, by funding science-based innovation projects, by helping the internationalisation of Swiss SMEs, and by promoting networking and events in key innovation fields.

374. Part of Innosuisse's mandate is raising awareness of SMEs of the importance of protecting their intellectual property. Innosuisse promotes business ideas in accordance with the subsidiarity principle, i.e. it only supports projects if the market potential is not otherwise tapped into. Innosuisse follows predominantly a non-monetary policy, i.e. a coaching and knowledge-pooling approach rather than substituting private market funds from, for example, venture capitalists. This approach helps avoid wrong incentives and ensures sustainable use of limited public means.

375. Of course, new businesses need substantial kick-off financing from private sources. Often, however, their sheer lack of expertise and experience of how to establish and run a business are by themselves handicaps. Here, governmental institutions can lend assistance as temporary partners, trainers, coaches and intermediaries. Innosuisse especially promotes partnerships between academia and the private sector. It is also a networking platform, bringing the right partners from the academic and private sector together. Moreover, by helping to promote the market potential of innovations at an early stage of development, the agency can facilitate a start-up's entry into international markets.

376. Such cooperative assistance and support can benefit companies in all economies, whether high-, middle-, or low income, of course adapted to the particular circumstances, needs and capacity of the companies in an individual country. The World Bank's research paper by Cravo and Piza on the impact of business support services for SMEs in low and middle-income countries shows how business support in these countries helps improve performance of companies and create jobs. The research paper informs policy debates with its meta-analysis on how such engagement of the public with the private sector benefits companies in a country, even if such support and engagement is limited to training courses.

377. In Switzerland, around 200 start-ups benefited from such individually tailored coaching in 2017. The projects which were mentored by Innosuisse, have contributed to the development of

innovative solutions, some responding to everyday problems, others producing breakthrough innovations.

378. At the side event on IP & Innovation, Jonas Pollard, a Swiss post-doctoral researcher at the University of Freiburg in Switzerland, presented his highly innovative project Hemolytics Malaria Diagnostic for which he entered a partnership with Innosuisse. The business case of his project was to develop a highly sensitive, inexpensive, portable, robust diagnostic device for malaria parasite detection in human blood. It relies on the patented chemical amplification of a malarial biomarker, a molecule found only in infected people. When this biomarker is present, a transparent liquid containing the chemical reagents ("re-agent") turns cloudy. By recording the formation of cloudiness, one can assess the infection of a patient. Mr. Pollard explained that the BRIDGE programme of Innosuisse had been essential for developing his innovative work beyond the stage of basic scientific research. The BRIDGE programme is a joint project run by Innosuisse and the Swiss National Science Foundation. It enabled the grant of a kick-off funding (of CHF 130,000), during which Pollard had to change his scientific mindset to an entrepreneurial one. This was also possible thanks to the BRIDGE programme, which aims to help young researchers apply their research results and gain the confidence needed to enter the market. To achieve this, Jonas Pollard participated in training courses such as the Innosuisse Business Concept and soon thereafter the Business Creation Training. He considered the support from different Innosuisse mentors to be crucial in helping him carry out the business development of his venture.

379. But how do academia, doctoral students and start-ups manage to handle their intellectual assets, their IP rights? Let's look at the example of Jonas Pollard, whose new business holds a first patent filed in European countries and the USA. The patent is still owned by his employer, the Adolphe Merkle Institute, which covered the cost for the patent application under WIPO's Patent Cooperation Treaty PCT. The institute's policy is that the research group where the patent originated from covers half of the patenting costs incurred for the national filing phase. This policy applies if the invention is not licensed-out to a corporation as an external partner. Pollard is now negotiating either to obtain an exclusive license or to buy the patent from the Adolphe Merkle Institute. A second patent is already in the pipeline for an important follow-on invention.

380. Summing up his experience, Jonas Pollard States that the patent was helpful in giving credibility to his project and attracting funding from other institutions and the private sector. It also enabled the disclosure of the technology to potential partners and customers without the need for a non-disclosure Agreement.

381. Let us also briefly present a second project supported by the BRIDGE programme. It concerns a new, innovative and sustainable business model that relies, *inter alia*, on trademark protection.

382. Colombian national Catalina Jossen-Cardozo arrived in Switzerland four years ago. She prepared for a Master's degree at the Lucerne School of Art and Design. In her studies, she thoroughly analysed the footwear market and observed that this sector was not only characterised by very complex logistics, but also dominated by monopolies. Against this backdrop, Jossen-Cardozo created a smart production chain for commercialising shoes in a new and sustainable way. To do this, she uses a sophisticated online tool and is building up her brand "By Maria", a registered trademark.

383. Ms. Jossen-Cardozo has collaborated with Columbian footwear designers who create their collections using her online tool and her trademark ("By Maria") thanks to a licencing agreement. This allows them to have their designs produced in a small, high quality, handcrafted limited edition. The shoe designers earn 10% of the product's selling price – compared to the normal average of only 1%. Furthermore, the Columbian shoemakers involved also receive a larger share of the selling price than is average. The project further aims at training and equipping footwear makers, enabling them to build up an independent livelihood for themselves and a better living for their families.

384. At the end of the supply chain, consumers acquire bespoke designer footwear that addresses their specific needs, while being reassured that the brand they are buying is a sustainably produced product at a fair and transparent price.

385. Ms. Jossen-Cardozo hopes that, in the future, she will be able to apply her concept and brand to other products and in other countries. Trademark law will allow her to do so through licensing contracts. Further relevant IP rights that she may rely on are industrial designs and copyright.

386. To sum up, IP can play a key role throughout the whole process of creating a new business. IP can positively shape an entrepreneur's incentive to innovate and protect investments. It can help science-based start-ups to step into markets and it can help new businesses connect with partners and gain a foothold in the international market. We encourage Members to take part in a comprehensive discussion on this. My delegation is looking forward to hearing from other delegations about their own experience and examples of the role of IP for new business, and about their policy approaches to support and promote new businesses.

12.3 Australia

387. Australia extends its sincere thanks to Switzerland for introducing this paper, which we are pleased to co-sponsor, on an issue that is assuming a growing importance for the entire membership of the WTO.

388. As suggested by our Swiss colleagues, we have based our intervention around the three guiding questions listed at the end of the paper, which sought information on i) the local IP and knowledge based business landscape; ii) the IP regulatory environment facing new businesses; and iii) real world examples of successful start-ups and IP policy settings.

389. Turning to the first of these questions, Australia enjoys one of the highest levels of entrepreneurial activity in the world. In 2016, an estimated 48.7% of all employing firms were 'innovation active', and nearly 15% of the Australian adult population was actively engaged in starting new businesses, equating to 2.2 million early stage entrepreneurs.

390. It is difficult to determine the exact number of start-ups operating in Australia. By one measure² the total number of start-ups rose from 954 to 1,465 - an increase of 54% - between 2015 and 2018. Another report found there were 2,770 start-ups in the State of Victoria alone.

391. Despite these discrepancies, all sources agree that Australia's start-up ecosystem has grown dramatically in recent years. Access to finance is improving, and the start-up industry is becoming more mature. On average, start-ups are now surviving for longer, testament to their growing ability to develop marketable products and workable business models.

392. In keeping with global trends, Australia's venture capital market declined sharply in the wake of the Global Financial Crisis (GFC). Since the GFC, Australian venture capital investment has averaged around AUD 300 million a year, down from the pre-GFC peak of AUD 900 million. However, it increased dramatically in 2016-2017, more than doubling to AUD 463 million, while venture capital fundraising jumped from AUD 211 million to AUD 959 million.

393. While the venture capital market is well established, venture debt remains for the time being a relatively unfamiliar concept in Australia, with just three lenders operating in the local venture credit market.

394. The Australian Government offers a number of programmes aimed at supporting venture capital and investment in early stage companies, including tax incentives, and flow-through taxation vehicles.

395. We now turn to the second question, concerning the IP regulatory environment for new businesses, and the importance of international cooperation.

396. Australia's IP system seeks to strike a balance between the needs of our inventors, entrepreneurs and creative artists, who require sufficient protections to encourage them to embark on their innovative work, and the needs of consumers and producers, who wish to benefit from the products and ideas which this innovative work creates.

² Start-up Muster 2018 report.

397. The Australia Government offers a range of programmes and support mechanisms aimed at helping local businesses bring their innovations to the marketplace. The IP Toolkit for Collaboration, for example, is designed to promote the commercialisation of IP by facilitating collaborative ventures between research organisations and industry. It offers a range of tools, including model contracts and advice on navigating difficult issues, such as confidentiality provisions and the use of existing IP.

398. Another initiative, Source IP, connects businesses with Australian public-sector research organisations that are looking to license their patented technology.

399. Australia's annual IP Summit builds understanding of our IP system by bringing together entrepreneurs, industry and government for a day long discussion on strategies for businesses looking to expand their commercial footprint, particularly overseas. In 2018, the theme was "Launch to Export – Take your Ideas Global", and work has already begun on the 2019 summit, which will focus in part on businesses expanding into China.

400. Finally, the 'Accelerating Commercialisation' initiative provides support to innovators who are looking to commercialise their intellectual property. To be eligible for an 'Accelerating Commercialisation' grant, a project must aim to commercialise intellectual property in the form of a novel product, process or service. As well as financial support, participants also receive assistance from Commercialisation Advisers who closely monitor each project and provide more detailed guidance if required.

401. Cooperation with our international partners makes a vital contribution to our broader efforts to create an IP regime that fosters innovation and creates a supportive environment for fledgling businesses. For example, we look to include commitments on IP in our free trade agreements to address developments in, and achieve a consistent international approach to, IP protection and enforcement.

402. Australia is also committed to helping developing countries, particularly those in our own region, to build strong domestic IP regimes that support local entrepreneurs and encourage innovation. Our Funds in Trust (FiT) programme, which we implement in close cooperation with WIPO, has supported the development of national IP strategies and the creation of an IP toolbox that has been translated into local languages. It has also funded training activities in the fields of trademarks, copyrights and patents, and workshops on IP marketing, commercialisation, and women and IP.

403. In a similar vein, IP Australia's Regional Patent Examination Training Programme (RPET) offers intensive competency-based patent examination training to examiners from ASEAN Intellectual Property Offices, to enable them to meet international Patent Cooperation Treaty (PCT) standards. This will in turn help create local regulatory environments that are conducive to innovation and entrepreneurship.

404. At the multilateral level, the global protection treaties administered by WIPO, such as the PCT, provide a clear demonstration of the benefits of international cooperation. While entrepreneurs and innovators have always had the option of pursuing protection for their inventions, trademarks and designs directly with individual IP offices, the WIPO-administered treaties substantially simplify the process for those wishing to market their innovations on a global scale.

405. Turning to the third and final question, there is a range of Australian businesses that have expanded into global markets thanks to the protection afforded to their intellectual property.

406. We offer the example of Win Win Parenting. Win Win Parenting, founded in 2013, provides education programmes that help working parents across Australia balance their work-life priorities. After establishing a strong business at home in Australia, working with a client list that included leading banks and universities, the company's founder set her sights on expanding overseas. Recognizing the importance of securing IP protection in foreign jurisdictions, the owner began the process of filing for trademark protection in the United States, the United Kingdom and New Zealand. Having initially secured the services of a local IP attorney, the company subsequently elected to seek protection via the Madrid Protocol, which allowed it to file simultaneously in all three countries, rather than having to deal individually with their respective IP offices.

12.4 Chile

407. Our delegation thanks the delegations of Australia, the European Union, Japan, Republic of Korea, Switzerland, Chinese Taipei and the United States for the document on intellectual property and innovation.

408. Chile views intellectual property as a tool for the promotion of technological innovation and the transfer and dissemination of knowledge, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare and to a balance of rights and obligations.

409. In this context, we believe that intellectual property plays a role in the creation of new undertakings that base their focus on intangible assets. The dynamic shift in trade towards a model focused on the knowledge based economy continues to heighten the importance of measures that promote the creation and sustainability of this type of undertaking.

410. In this light, and on the basis of the three questions posed in document IP/C/W/648, we would like to share with the TRIPS Council some information and statistics regarding public initiatives and policies aimed at facilitating the creation of undertakings and businesses in Chile.

411. In statistical terms, and according to information provided by the Start-up Chile programme, there are currently around 1,300 start-ups that were created under this programme, more than 50% of which are active and which are valued at USD 1.4 billion. The Start-up portfolio is a colourful one, covering areas such as big data, biotechnology and the Internet. According to the 2016 Global Entrepreneurship Monitor report on Chile, there has been a sharp rise in innovation and development transfer from universities since 2015.

412. Regarding specific regulatory measures conducive to the creation of new undertakings, we would like to tell you about some initiatives that have been introduced:

413. First of all, we have the "Your Business in One Day" initiative (Tu Empresa en un Día), which, through a single web portal, seeks to facilitate the creation of businesses by eliminating costs and reducing the amount of time it takes to set up an enterprise. The initiative, introduced by the Ministry of Economy of Chile, has achieved excellent results. Today, entrepreneurs and innovators can set up their businesses without seeking legal advice or paying notary fees, and do not need to waste time dealing with the Internal Revenue Service.

414. The second initiative was introduced by the General Directorate of International Economic Relations of the Chilean Ministry of Foreign Affairs and is aimed at Chilean exporters. Under this initiative, exporters of goods with a high technology content and those in creative industries receive training on aspects of intellectual property that should be taken into account when exporting goods to third countries. To this end, fact sheets have been produced on the main aspects of intellectual property systems in export markets. This initiative has enabled Chilean exporters to better understand the importance of considering intellectual property related aspects when exporting.

415. The third initiative is the Start-up Chile initiative, a business accelerator created by the Chilean Government to encourage a high level of innovation based entrepreneurship using Chile as a platform. Start-up Chile is the leading accelerator in Latin America and among the top ten accelerators worldwide. It has the largest and most diverse community of start-ups in the world. Start-up Chile has changed the vision of entrepreneurship at global level. Since its creation, around 50 other countries have introduced similar programmes.

416. Lastly, a draft law has been presented to incorporate the acquisition of start-ups as a tax incentive. This measure reflects the importance of technology transfer hubs, the mission of which is to protect technologies at global level and transfer the technological developments generated in universities and centres of technology off campus, either to businesses or to generate new spin offs. The measure also seeks to boost private investment in innovation.³

³ Video Start Up Chile - <http://www.startupchile.org/es/sobre-nosotros>.

417. We would like to finish by showing you a specific example of a new business that is based on intellectual property. The video you are about to see tells the story of Luis Cheul whose passion for music led him to invent the smallest electric bass guitar in the world. Thanks to his invention, he established links with the Wing Instruments company, which now sells his product throughout the world.⁴

12.5 Japan

418. This delegation would like to thank the delegation of Switzerland for its clear introduction of our concept paper. As is written in the concept paper, in the current economy "knowledge is the main driver of economic growth" and "intangible assets play an important role". In this situation, this delegation fully supports the idea that protecting IP is highly important in the process of creating a new and innovative business.

419. This delegation is of the view that strategic IP protection facilitates rapid growth of new business. In order to support the growth of new business, the Japanese Government has established various IP-related policies for start-ups in Japan. Taking this opportunity here, this delegation would like to mention what we are currently doing and show how start-ups made good use of their IP.⁵

420. First, we will show you the general situation of new business. According to statistics by our Government, the number of new business start-ups in Japan is about 200,000 a year. Since a new and innovative business is essential to drive economic growth and create jobs, the Japanese Government supports the so-called "start-up ecosystem" in various ways, supporting start-ups from their beginnings, up to their mature stage.

421. Then, what kind of support programme is needed for start-ups, in particular in the IP field? According to the questionnaire conducted by the Japan Patent Office, the following three points will be addressed.

- a. Lack of awareness of the importance of developing an IP strategy;
- b. Lack of opportunities to meet IP experts familiar with the start-up ecosystem; and
- c. Need for speedy support.

422. In response to this situation, just this past summer the JPO, in collaboration with other agencies, launched a brand-new IP policy to support start-ups. Currently there are five policy keywords, which are: (1) strategy (2) expansion (3) speed-up (4) low cost and (5) information. We will talk about two out of five areas of support, which are the "Hands-on programme" and the "Accelerated Examination". In addition, this delegation will show you a model case that made use of IP as a development tool.

423. This is the "IP Acceleration programme for Start-ups", which we call IPAS". The JPO just started this programme from this July. Under this programme, the JPO sends Special Professional Teams to start-ups during their early stage of growth, for a certain period of time. The team consists of several business experts such as Venture Capitalists, Business Consultants and Attorneys. The team provides hands-on support to form and work with the start-ups' IP strategies. Based on this programme, we hope that start-ups in their early stages can expand their business quite smoothly, based on developing appropriate IP strategies and making use of professional support.

424. The next is "Accelerated Examination" which also started from this July. Speed is of the essence for start-up' businesses, so it is important to adapt patent examination to enable start-ups to strategically acquire and utilize their patent rights at the right timing. In addition, it is also important to provide fine-tuned support to start-ups that have little experience in acquiring patents.

425. Based on this, the JPO launched two programmes: "Accelerated Examination Using Interviews" and "Super-Accelerated Examination" in order to fulfil start-ups' needs.

⁴ Video Inventando Chile - <https://www.youtube.com/watch?v=Cx5l1TPVQCE>.

⁵ The PowerPoint presentation is available in Room Document RD/IP/29.

426. Conducting "Accelerated Examination using Interviews", start-ups can meet patent examiners face-to-face and directly explain the details of their patents. And examiners give general advice on patentability and various initiatives provided by the JPO for supporting start-ups.

427. In the "Super-Accelerated Examination", start-ups can request the fast-track programme if the inventions are already being worked. This system enables start-ups to acquire patent rights much sooner compared with the standard application process. Obviously, these programmes enable them to acquire patent rights in a speedy manner, and enable them to achieve strategic business activities.

428. Finally, this is a successful case in which IP was used as a means for a start-up to collaborate with a big company and expand its business. A joint-venture in Osaka, called "Microwave chemical", developed a factory process utilizing micro-radio waves. Its IP activities are worthwhile to note, in particular the following three points.

429. First, the company regularly holds an "invention committee" to maintain a solid IP strategy. The committee Members are comprised of the CEO, staff Members in the IP division, and external IP and legal experts based on a partnership agreement. In addition, it has a good training system in IP literacy for the staff, which enables the company as a whole to raise the awareness of IP protection.

430. Second, the company utilizes its IP rights for building a collaborative relationship with a big company. It enables the company to conduct collaborative research on bigger projects.

431. Third, leveraging its IP rights, the company can easily obtain financial subsidies from the public sector. The subsidies make it possible for the company to expand its business with foreign partners.

432. This company was awarded a special prize by the JPO because it adopted a successful IP strategy. This kind of exceptional role model is included in brochures issued by JPO, in order to enhance IP awareness and show that IP strategies are highly important.

433. In summary, this delegation would like to emphasize again that in the current knowledge-based economy IP is extremely important for driving new and innovative businesses. To facilitate the growth of new business, the Japanese Government provides many programmes for start-ups. This delegation hopes that its information helps other delegations create their own domestic policies and looks forward to hearing other delegations' input under this agenda item.

12.6 European Union

434. Intellectual property rights (IPRs) play a crucial role in catalysing innovation and creativity, promoting economic growth and development, creating jobs, improving the quality and enjoyment of our lives, and combatting the manifold challenges we face as individuals, as nations and as a global community.

435. In today's knowledge society, the European Union thinks that innovation is a key asset. For many countries, it is a more valuable source of growth and wealth than natural resources - which are increasingly scarce.

436. The impressive development and growth of many countries, relies to a large extent on innovation and technology. An effective IPR system is crucial to promote innovation, as it makes it possible to protect intellectual assets such as inventions and brands, but also music, literature and agricultural products, which are as relevant for developing as they are for developed country Members.

437. Therefore, insofar as IPR regimes are concerned, legal certainty is important in encouraging innovation and investment, which underlines the need for stable and predictable IPR regimes, domestically and internationally.

438. It is clear that IPR regimes need to be properly balanced, and this has been a central concern throughout the history of IPR, with frequent controversy regarding how exactly to achieve such

balance. But ultimately, there is very broad agreement about the central role of intellectual property in a knowledge based society to ensure, competitiveness, scientific progress and access to culture.

439. It is therefore not surprising that the fostering and development of intellectual property rights has become one of the crucial areas of policy initiatives in the development of a growth conducive business climate, in particular with regards to start-ups and other forms of new businesses.

440. The key role of intellectual property in the success of start-ups and innovative new businesses has long been recognized. It allows innovative businesses to profit from the results of their creativity, inventiveness and R&D investments, and creates an incentive for further investment in innovation.

441. Given that knowledge-based parts of the economy in developing and developed country Members is made up of businesses whose most valuable assets are intangible, innovative and creative start-ups need to be aware of the advantages of using IP and the dangers of neglecting it. Among other reasons, to better assist those companies in this regard, the European Commission set up the Executive Agency for Small and Medium-sized Enterprises, which manages the vast majority of the European Union programmes designed for SMEs and new business to help them innovate and do research.

442. In the Single Market Strategy, the Commission announced in 2015 that it would come forward with European Union-level measures to support the use of IP by SMEs and start-ups. Honouring that commitment, the Commission is putting in place a package of IP-support measures for start-ups, aiming at improving coordination and consistency in addressing sub-optimal use of IP across the European Union. This package was presented together with another Communication titled "Europe's next leaders: the Start-up and Scale-up Initiative". The Communication aims at enhancing a coordinated approach across the European Union policies through a set of pragmatic measures in order to boost innovation and research with the involvement of new businesses.

443. The measures include:

- Streamlining European IP awareness schemes for new businesses and providing a cooperation platform for European Union Members;
- Developing a European Union IP mediation and arbitration network;
- Encouraging the creation of European-level insurance schemes for litigation and IP theft, building on a common IP valuation method; and
- Improving coordination of IP support funding schemes, including by means of a possible guidance to Members and by developing monitoring methods their impact.

444. Working in partnership with all levels of Government in European Union Members, regions and cities and all stakeholders - including start-ups and scale-ups themselves - is necessary for the efficient and successful implementation of initiatives intended to help new business and allow them to approach the complex matter of IP more effectively.

445. In recent years, the European Commission and European Union Members have supported the creation of 'communities' to help start-ups connect with potential partners (e.g. investors, business partners, universities, research centres) through events, platforms, business clusters, networking and supportive local/regional 'ecosystems'.

446. At European Union level, the Start-up Europe initiative has emerged as a recognized brand for creating links between those ecosystems, focusing on connecting people, international outreach and providing information through a One Stop Shop for start-ups. Start-up Europe also helps new businesses, in particular, through matchmaking between investors, corporates and entrepreneurs as well as networking of regional decision-makers.

447. Start-up Europe's objectives are:

- To reinforce the links between people, business and associations who build and scale up the start-up ecosystem (e.g. the Web Investors Forum, the Accelerator Assembly, the Crowdfunding Network);
- To inspire entrepreneurs and provide role models; and
- To celebrate new and innovative start-ups, help them to expand their business, and give them access to funding under Horizon 2020, which is the main research and innovation framework programme of the European Union.

448. To mention one of these European Union-level initiatives particularly relevant in the context of IP, the Web Investor Forum brings together top-level Investors and Accelerators from all over Europe with the goal to foster a more scale-up-friendly ecosystem. The Investors Forum acts as an internal channel conversation for the European Investment Fund and European Commission with European and international investors. Specifically, the Investors Forum bridges investors to Corporate Development Heads, like the Start-up Europe Partnership, European Matching Funds and the European Commission.

449. Intellectual property rights play an increasingly important role in corporate strategy and financial investment. The intangible assets created through the processes of innovation represent a major share of the value of today's businesses. The IP rights associated with those assets are the legal underpinning for potential returns on investment in that innovation.

450. The European Expert Group on Intellectual Property Valuation assessed the commercialisation of innovative ideas, with the value of the IP asset acting as collateral. They looked especially at start-ups. Equity investors typically invest into companies as a unit, but not into IP assets as such. In return for their investment investors receive an equity stake of a company which owns IP and intends to exploit the IP. Therefore, investors using this model are indirectly financing based on IP.

451. The Expert Group notes that an issue which influences a company's decision to protect its IP, especially in the case of new business, is to what extent such rights are enforceable, the time and costs involved in litigation, and the foreseeable economic results. The quality of the enforcement system has an important impact in IP protection. Companies need to be assured an accessible justice system for infringement, validity and other cases.

452. Large investment banks and private equity firms alike have raised and invested funds targeted at IP and other intangible assets. Rather than looking for entrepreneurs and start-up companies, these firms are often looking to invest in IP for development and commercialization purposes. These enterprises work with companies to either buy the IP or invest in the company for commercialization of the IP.

453. The PATLICE Survey enquired about European firms' patent licensing activities and found financial use is very important for small companies. There is a significant difference in the use of patents to obtain funding and finance by start-ups compared with larger firms. All types of finance uses are much more important for start-ups than for large firms. They particularly use patents more for raising capital through private investors and Venture Capital and private equity.

454. To conclude, we would like to underline that transparent and predictable intellectual property rules assist start-ups to engage confidently in domestic and international markets. Intellectual property rights can provide the framework for ownership, protection and the use of ideas and knowledge created in Europe and beyond.

12.7 Norway

455. Norway would first of all like to thank the proponents of the paper for their efforts in keeping this discussion on the agenda of the TRIPS Council. I will provide some answers to the questions put forward in the paper and will address them chronologically.

456. The first question asked "what country-specific information could Members share on IP and knowledge-based businesses, e.g. the number of new enterprises they have each year, an overview

of the start-up landscape in their country or figures relating to their venture capital and venture debt markets, and the particular role IP plays in it".

457. The Norwegian Industrial Property Office (NIPO) conducted in 2018 an analysis of the Intellectual property rights-intensive industries and their economic performance in Norway. The analysis was performed by applying the methodology and industry ranking developed for the European Union by the European Patent Office and the European Union Intellectual Property Office (EUIPO). As outlined in the EU studies, IPR-intensive industries are those with an above-average use of IPR per employee, as compared with other IPR-using industries. These industries are concentrated in manufacturing, technology and business services sectors.

458. The results show that, as in the European Union, IPR-intensive industries pay significantly higher wages than other industries, create more export revenue per capita, etcetera. Some of the main findings:

- IPR-intensive industries generated 25.9% of all jobs in Norway in the period 2011-2013 (EU: 27.8%). This corresponds to 655,000 jobs.
- IPR-intensive industries generated on average more than 51% of total economic activity (GDP) in Norway in the same period, corresponding to EUR 196 billion.
- IPR-intensive industries paid much higher wages than other industries, with a wage premium of 53% over other industries (2013 figures).

459. We have also started to bring IP data into our standard statistical framework. A few years ago, Statistics Norway established a regular database on patenting, design protection and trademarks by enterprises. The enterprises in the database are organised by regular organisational numbers rather than by name. By using these numbers, information from other administrative registers with patenting information can be linked to each enterprise.

460. For example, we can now easily study enterprises by specific indicators, such as patents, size, age and the patenting enterprise's statistical industry rather than the patent's technology area. Given our extensive and digital administrative registers, we can look at such issues as ownership or financial structure and patenting activity. However, these are still time-consuming and resource intensive studies. At the moment, descriptive statistics are therefore more easily available.

461. Some of results we do see, are that patenting takes place in small enterprises and in large enterprises, with the frequencies being lower in medium sized firms. Design protection is mostly taking place in smaller enterprises.

462. The second question asked "what IPR-specific regulatory measures, policies and practices do Members consider to be conducive to, or even necessary for, creating new businesses, e.g. how easy is it to create a new business for young entrepreneurs and, in light of that, what is the role of IP in that process? Furthermore, what impact does international cooperation have in promoting a positive new business IP environment".

463. Awareness of intellectual property values, when to use formal protection and some insight into patent law; it translates into stronger IPR inclusion in higher education, business studies, engineering and such areas.

464. Awareness translates into the two sides of IPR: my rights and how I exercise them, and others' rights and whether I infringe on them. In our case, raising awareness was an aim of a recent White Paper on IPR (2014).

465. The third question invited Members to share "any specific examples of new businesses, their IP-protected innovations and other IP-related assets, or successful governmental IP-related policies that help new businesses integrate into the global economy".

466. In 2012, a group of PH.D.-students and their professor at a polytechnical University in Norway (NTNU) co-founded the start-up company CrayoNano AS. With production in Asia and customers all over the world, this start-up was born global.

467. The company has developed nanowire/graphene based deep-UV LEDs for sterilization and disinfection. CrayoNano has patented the use of graphene as a semiconductor substrate. The technology platform is protected through nine priority patents. Some of the underlying results have been published in journals like Nano Letters and Nature Communications.

12.8 Brazil

468. I would like to thank the co-sponsors for presenting this agenda item on IP and Innovation. Our delegation welcomes the debate for its contribution to deepening the understanding of the intellectual property system related to the achievement of the objective of Article 7 of the TRIPS Agreement. In fact, we identify complementarity between this agenda item and the one on IP and Public Interest. They both highlight the complex relation of the IP system with the concrete reality routinely faced by policymakers and stakeholders. This is one of the reasons why Brazil is a cosponsor of both documents IP/C/W/648 and IP/C/W/649.

469. There is a range of regulatory measures that can be used by Members to support new business. For instance, our patent office provides fee reductions for micro and small enterprises as well as to individual inventors. Since 2016, the patent office offers accelerated examination of patent applications from SMEs. One of the reasons for these initiatives is that start-ups begin relatively small and rely on the patents to attract investments. A fast and affordable patent application process will undoubtedly improve their competitive conditions.

470. Furthermore, we are active in promoting awareness-raising activities on the importance of IP protection for innovation, disseminating a better understanding for the strategic use of IP by companies and allowing the culture of IP to flourish. In order to bridge the gaps between start-ups and funding, Brazil has a start-up programme implemented by FINEP, a governmental agency. FINEP grants investments of up to USD 1 million to start-up companies.

471. Brazil is also interested in developing studies that allow us to evaluate existing mechanisms for supporting innovation. Last month, in partnership with the OECD we initiated a review of SMEs and entrepreneurship in Brazil. The goal is to assess the structure and performance of Brazilian SMEs, map policies and programmes that support their entrepreneurship and strengthen policy design and implementation. We hope to present the results of that work in future sessions of the Council.

472. I would like to present two cases of success of Brazilian start-ups. The first one is a company called Integra, a University spinoff originated from the University of Brasília. Integra developed a genetically-modified yeast that can be used to convert residues of the biodiesel industry into bioplastic. Protected by four patents, the company received investments of more than BRL 1 million that allowed it to do further research on technologies to convert agroindustrial residues into products of high added value. Integra's goal now is to achieve a turnover of BRL 40 million by 2020, underlying its success.

473. TNS Nanotechnology is a company that won a start-up prize promoted by the Brazil-Germany Chamber of Commerce for an antibacterial that can be used to clean air conditioners and washing machines. The company also developed a biological sensor for diagnosing salmonella in food products. The sensor allows the detection of salmonella in up to five hours, in comparison with the seven days required by the previous technology. Those inventions are protected by patents and allowed the company to receive investments from Germany and Italy. The company currently exports its products to ten countries in South America, Europe, Africa and Asia.

474. Our discussion should also take into account other barriers to the dissemination of the use of the IP system by innovative companies. For instance, those companies may have limited resources for spending with lawyers. Patent search is another costly area for smaller companies. Lastly, enforcement measures and the need for surveillance of possible infringements of their IP assets often require much resources. A broad discussion on the subject cannot overlook those obstacles. Members would greatly benefit from exchanging experiences on the solutions found.

475. As also stated by other delegations, it is important to highlight that patents are not the single element driving innovation, but rather one element among different tools. Having the right infrastructure for innovation, collaboration and research are fundamental ingredients of innovation.

Earlier this week the WTO organized a seminar on IP and knowledge flows, in which a recurrent idea mentioned by speakers was the need for providing an ecosystem that fosters innovation. This includes not only appropriate and effective IP protection, but also other mechanisms such as adequate funding for start-ups, tax measures and free trade agreements that enhance integration to global value chains. The absorptive capacity of countries is another important aspect mentioned by speakers.

476. I would like to conclude by stressing the efforts that Brazil has been undertaking to improve our internal innovation environment. The process of accession of Brazil to the Madrid Protocol is ongoing in Congress and we hope that it will provide an additional opportunity for companies interested in internationalizing their businesses. In the meantime, INPI initiated preparatory procedures, such as hiring additional trademark examiners and adapting IT infrastructure. Those initiatives allowed us to substantially reduce the trademark backlog and pendency time: we expect that by the middle of next year the examination of trademark applications can be concluded in eight months counted from the date of filing.

477. There are also ongoing efforts by INPI in patents. We have hired 210 new patent examiners in the last two years, almost duplicating the office's capacity to process patent applications and allowing us to slash the patent backlog by 10% in the last eighteen months. We hope we can continue the trend of reducing the patent backlog and pendency time, benefiting applicants and competitors alike through faster examination and enhanced legal certainty.

478. Brazil is deeply committed to continue encouraging and rewarding innovation and its widespread dissemination in the economy and society.

12.9 Singapore

479. Thanks to Switzerland and the proponents for preparing this very useful discussion paper.

480. In today's knowledge-driven economy, Singapore sees innovation as a key driver for our development and IP as the new currency for economic growth.

481. With 67,000 companies registering in Singapore annually, the Singapore Government has put in place several efforts to help these businesses innovate and grow. For example:

- To help create synergies amongst technology start-ups, a shared physical space (Block 71) has been set up to pull together a community of entrepreneurs, innovators and investors. To date, this physical space/hub is home to more than 250 start-ups, 30 incubators, accelerators and venture capitalists;
- Efforts have also been made to provide a conducive environment for the financial technology (fintech) sector to flourish;
- Singapore's National Intellectual Property Office has as one of its objectives, enabling companies with IP resource potential to move to the next development stage, such as to develop new products or to expand to new markets; and
- We have undertaken efforts to encourage voluntary mediation, so as to make it easier to enforce contracts, including on IP matters. This is part of our ongoing effort to improve the ease of doing business in Singapore.

482. Singapore's IP regime also aims at striking a balance so as to encourage the development of innovative enterprises in ways that do not stifle competition. In this way, we hope to promote a positive new business IP environment that enables businesses to integrate better into the global economy. For example:

- We are strengthening our linkages with other IP regimes for better market access. Since 2010, patent applications by Singapore firms via the Patent Cooperation Treaty (PCT) system have grown almost 60%, while applications via the Madrid system have grown more than four-fold; and

- Singapore also participates in patent acceleration programmes, such as Global Patent Prosecution Highways and the ASEAN Patent Examination Cooperation. There are also many other ASEAN initiatives that facilitate the protection of IP of international investors in the region, as well as encourage greater domestic innovation in the region.

483. Through our work, we have also observed challenges that new businesses face in relation to IP. For example, we note that start-ups tend to have a preference for debt funding in order to preserve their ownership stake in the business. However, innovation-driven start-ups are usually light on tangible assets. As such, this poses a challenge for raising debt as the current banking model is not designed to collateralise intangible assets such as IP rights. Singapore believes there is a need to overcome this debt financing constraint faced by IP heavy enterprises, and is working on policies to address this.

484. We also look forward to hearing from other Members on their best practices and experiences in fostering new businesses in relation to IP.

12.10 India

485. India thank those Members for the new submission.

486. The history of evolution of IP rules in developed countries suggests that the design of IP rules and policies should be adaptable to the changing needs of societies. This is reflected by the fact that the levels of IP protection in developed countries increased as their industrial and technological capacities improved over time. While IPRs may provide an incentive to innovate, they are neither a necessary nor a sufficient condition and could only be effective in certain contexts.

487. Innovation is a sine qua non for growth. It is in this context that India has taken many steps to improve the innovation ecosystem - whether it is through the quality of the human resource or the research and development activities or strengthening of academia industry linkages and availability of capital.

488. The result of such actions is visible. India has moved up on the Global Innovation Index from a rank of 76 in 2014 to 57 in 2018. At the indicator level, India ranks well in a number of important indicators including, graduates in science and engineering, productivity growth, ICT service exports. This year India was second in both the quality of its universities and the quality of its scientific publication among the middle-income economies. This has been possible due to a number of initiatives taken by the Government to support and promote innovation. Start-up India is one such programme of the Government.

489. Another development is India's ranking in the World Bank's Ease of Doing Business 2019 Survey. It climbed up 23 places to 77th among 190 countries surveyed, making it the only country to rank among the top ten improvers for the second consecutive year. Since 2014, India's ranking improved 65 places from 142nd in 2014 to 77th in 2018.

490. While we strongly believe in promoting and nurturing innovation, we are also of the view that IPRs are neither a necessary nor a sufficient condition for innovation. If it had been so software development would not have thrived on open source development.

491. On the contrary, unbridled power to IPR holders can adversely affect innovation. We are all well aware of how patent thickets, exclusive grantbacks and coercive licenses can deter innovation. Non-Practicing Entities (NPEs) also have been identified by many policymakers as a costly impediment to innovation and economic growth.

12.11 Chinese Taipei

492. As the co-sponsor of this proposal, we are very happy to share our thoughts on this subject.

493. In the era of knowledge economy, innovation and use of knowledge are the main driving forces of a member's competitive edge and economic growth. There is no doubt that patents are crucial to the success of a start-up or new business.

494. However, it can be a huge burden for a new company with limited capital to pour in manpower and expenditure on developing a new product that may or may not be successful.

495. Considering this, we are proactively creating an environment that is friendly to entrepreneurs with creativity or innovation wishing to expand their businesses. I would like to share two points regarding our policies and measures on establishing new businesses and bridging financial resources.

496. First, there is no minimum capital requirements for setting up new companies according to our Company Act. A new company may be registered so long as there is enough capital to this end. The Act also allows for capital contribution by shareholders in the form of technologies. In other words, technology owners (or intangible assets) may use their technologies as contribution for stock and invest it in the company through transferring or licensing of their technologies. This will not only ease the pressure of capital flows for technologies owners in the process of commodification but also help companies obtain the results of technologies developed by domestic and foreign businesses. Over the years, this approach has successfully facilitated many Start-ups or new businesses overcome financing constrains by demonstrating the value of their patents.

497. Second, many small and medium-sized enterprises and academic institutions have invested in research and development, possessing patents and technologies, but have not been able to obtain bank financing. Many good ideas and inventions cannot be commercialized because of lack of financial assistance. In this context, we launched the "Start-up angel project" to pour in more than USD 3 million, targeting 300 start-ups in five years period. Its policy goal is to assist companies with ideas or patents to successfully convert intellectual property rights into business opportunities. Also, this influx of business operation capital will effectively help innovators cross the start-up threshold.

498. A very good case benefited from this "Start-up angel project" is a company named "Deepblu". Deepblu is a start-up concentrating on developing a diving watch, which is able to record and instantly share diving data using the connection between built-in apps and cloud services. Following its receipt of the angel fund in 2015, the company has successfully conducted sales of its product in countries/regions with a thriving diving industry, such as Indonesia, Malaysia, Thailand in Southeast Asia, as well as the European Union and the United States. The amount of the company's capital has grown from USD 130,000 since its founding in 2013 to USD 1.65 million in 2018, registering an increase of 12 times.

499. To sum up, intellectual property and innovation are indispensable driving forces of economic development, especially for start-ups or any new business. In other word, start-ups need patents. Patents help facilitate venture capital investment, defend attack by rivals, ensure a freedom to operate, increase the chance for partnership, and most importantly, secure a long-term competitiveness. Therefore, how the government helps innovators start new businesses through well-planned patent strategies remains an important lesson. We welcome and look forward to hearing other Members share their experiences and views on relevant measures.

12.12 Canada

500. Canada is pleased to participate in the discussion on "IP and New Business", as part of the three-part theme "The Societal Value of IP in the New Economy". We would like to thank Switzerland for the discussion paper that serves as the basis of this agenda item (IP/C/W/648), as well as those Members that have shared their experiences and insights so far on the role of IP in the development of new businesses.

501. In order to get at the issue of how IP-specific measures can assist new businesses, it is perhaps useful to first provide an overview of the start-up landscape in Canada. According to a recent study by Canada's Department of Innovation, Science and Economic Development (or ISED) entitled "Canadian Start-Ups – A perspective based upon the 2014 Survey on Financing and Growth of Small and Medium Enterprises", almost 8% of small and medium-sized enterprises (SMEs) in Canada in 2014 were start-ups. In Canada, these are defined as firms that are two years or younger. Notably, the study also found that firms appeared to be more innovative when they were young and in the growth stage. For instance, in 2014, 43% of start-ups and 44% of firms three to ten years old introduced at least one type of innovation (defined as a product, process, organizational or market innovation), compared with 40% of firms 11 to 20 years old and 41% of firms more than 20 years

old. The study also found that sales growth expectations were higher among start-ups than non-start-ups, with younger firms more growth-oriented than older firms.

502. However, despite being relatively more innovative, the study also found that start-ups were less likely to own IP than non-start-ups. In 2014, for instance, roughly 19% of Canadian start-ups owned some type of IP compared with 22% of non-start-ups. Notably, this dynamic is also evident when firms grow, as well as age. For instance, according to ISED's 2014 "Survey on financing and growth of SMEs", among SMEs with between one and four employees, just over 21% held IP, whereas among businesses between 100 and 499 employees, 51% of these firms held at least one type of IP. ISED's study on start-ups also found that Canadian start-ups were less likely to export than older forms, and also were more likely to seek external financing, than non-start-ups.

503. In addition, Canadian start-ups have been found to have relatively higher demands for external financing than non-start-ups, with 58% of start-ups requesting some form of external financing compared with 51% of non-start-ups. As well, requests for debt financing were also higher among start-ups. In 2014, 37% of start-ups requested debt financing compared with 31% of firms in operation for three to ten years. The inverse was also apparent in respect of debt financing approval rates, which were marginally lower than for non-start-ups (75% and 78%, respectively).

504. In view of these dynamics, and returning to the topic of IP and new business, it is important then, to consider the role that IP-specific measures, and other related policies, can play in assisting start-ups to both grow and seek export opportunities in other markets. For instance, with respect to financing, in January 2016, the Government of Canada announced the launch of CanExport, a five-year programme which will provide CAD 50 million (or approximately USD 40 million) in direct financial assistance to SMEs that are registered in Canada and seeking to develop new export opportunities. Delivered by Global Affairs Canada's Trade Commissioner Service in partnership with the National Research Council Industrial Research Assistance Programme, CanExport provides financial support for a wide range of export marketing activities, including in respect of IP protection and certification expenses in foreign markets. As well, the Business Development Bank of Canada (or BDC), which is a federal Crown corporation owned by the Government of Canada, provides financing and advisory services with a focus on SMEs, such as start-up financing and small business loans. For instance, BDC's Xpansion Loan is designed to help business develop products that are key to growth and expanding their market, as well as to seek IP protection and purchase IP licenses.

505. Turning to IP policy more specifically, the Canadian Intellectual Property Office (CIPO) also provides a number of measures to encourage small businesses to use the IP system. For instance, with a view to encouraging small businesses to seek patent protection, certain CIPO fees for obtaining and maintaining a patent are reduced by 50% for "small entities". Canada's Patent Rules define a small entity as one that employs 50 or fewer employees or is a university. In order to take advantage of the reduced fees for small entities, applicants must submit a small entity declaration before or at the time of their fee payment, if there is not already one on file.

506. CIPO has also launched an IP Awareness and Education Programme to deliver products, services, and training to SMEs. For instance, CIPO's IP Awareness and Education Programme offerings include guides, one-pagers, and process maps, in addition seminars and training sessions that provide businesses with tools and information to better acquire, manage, and leverage their IP assets (IP for Business); seminars and training services for businesses, partners and intermediaries (IP Academy); and a suite of networked services, including referral, consultation, and support to advisory services (IP Hub).

507. Finally, IP for new and growing businesses serves as a key focus of Canada's recently-launched national IP Strategy. With research showing that start-ups are relatively more innovative than older firms, but less likely to own IP, initiatives to assist new and growing businesses in obtaining and utilizing IP can serve as an avenue to leverage their innovations into commercial success. Canada's IP Strategy focuses on addressing a number of IP issues facing growing businesses, as well as to provide clarity for IP stakeholders. These include forthcoming legislative amendments, such as minimum requirements for patent demand letters, as well as measures to reinforce the importance to use in the trademark regime (e.g. to prevent the misuse of the trademark registration system, or what is sometimes referred to as "trademark squatting"). The IP Strategy also includes measures on IP awareness, education and advice, which will build on CIPO's current learning tools and resources, and will also include IP legal clinics, as well as IP advisors through existing federal programmes. Finally, in recognition of the importance of business growth and success in the global

marketplace, the IP Strategy will include measures on strategic IP tools for growth, such as expedited IP dispute resolution; a centralized IP marketplace for businesses, entrepreneurs and innovators; and the establishment of a patent collective to support SMEs in coming together to facilitate better IP outcomes for collective Members.

508. Canada will be pleased to present on these and other elements of our national IP Strategy as they further develop over in the coming months. In the meantime, we would like to again thank those Members that have shared their insights and experiences so far, and look forward to hearing further views on this important topic.

12.13 China

509. We recognize that innovation plays a positive role in cultivating new industries. Many emerging industries, including e-commerce, are driven by innovations and an effective intellectual property protection system. To these emerging industries, innovation ability of SMEs is particularly important.

510. In order to promote the development of SMEs and to enhance the generation, usage and management of IPR in SMEs, China has adopted a series of measures. Particularly, at the end of 2016, China National Intellectual Property Administration and Ministry of Industries and Information Technologies jointly released a document "Guiding Opinions on the Comprehensive Implementation of the SME Intellectual Property Strategy Promotion Project", providing seven possible methods to enhance the abilities related to IPR in SMEs.

511. The first is "patent information navigation" system, that is regularly sending high-quality, low-cost intellectual property information to SMEs. The second is to establish incentive mechanisms to stimulate the vitality of SMEs, including promotion on industry-university cooperation mechanism. The third is to enhance the ability of IPR management in SMEs. This includes providing new financial services, such as patent insurance. The fourth is to strengthen the protection of IPRs for SMEs, including providing specific IPR protection enforcement actions. The fifth is to provide scientific guidance for SMEs, including guiding SMEs to build suitable and scientific IPR management systems. The sixth is to deepen international IPR cooperation in SMEs, including actively conducting international IPR activities for SMEs. The seventh is to provide more public services for SMEs, including encouraging industry associations to recruit more SMEs. We believe those measures will have a positive effect on promoting the protection and utilization of IPRs of SMEs.

512. However, we also hope to draw Members' attention to the following facts. First, it is agreed that for the generation and development of emerging business, besides innovation and IPR protection, we also need capital, human resources and other essential elements. To developing Members, capital and human resources play an even more important role. Second, innovation cannot be achieved in one day. It needs huge amount of investment and primitive accumulation. Compared to developed Members, developing Members suffer deficiency in many areas. Currently, there still exists a wide gap between developed country Members and developing Members on the level and ability of innovation. We hope that Members can pay attention to these facts and explore effective solutions.

12.14 South Africa

513. South Africa would like to thank the co-sponsors for putting this important item on the agenda.

514. Like many developing countries, South Africa faces a great development problem relating to the high failure rate that is present among Small and Medium Enterprises (SMEs). This is due to the fact that entrepreneurs are not able to turn their businesses into sustainable ventures. SMEs play a significant role in a number of economic development issues that South Africa is facing as a nation. The SME sector has contributed immensely to job creation, poverty alleviation and assisting in the prosperity of the nation.

515. South Africa has progressively shifted away from dependence on primary resource production and commodity-based industries to open up to international trade and to building capacity in some knowledge-intensive industries. However, the country's economic growth has remained weak by emerging-market standards, with GDP rising at 3.1% per year from 2000 to 2014.

516. The National Development Plan (NDP) - A Vision for 2030 (2011-30) provides a general roadmap for South Africa's transition towards a diversified economy, with innovation underpinning almost every aspect and a strong focus given to strengthening human capital. The National R&D Strategy (2002 onwards) has planned for increasing public and private investment in the science base and improving the system of S&T governance. In parallel, the Ten-Year Innovation Plan (2008-2018) identified five areas of competitiveness to be developed, i.e. bio-economy (formerly pharmaceuticals), space, energy security, global change including climate change, and social and human dynamics. In that respect, the National Industrial Policy Framework (NIPF) articulates South Africa's overarching approach to industrial development and innovation.

517. Innovation is widely viewed as a driver of company competitiveness and, indeed, the economic growth of countries. The South African Government has approved Phase I of the National Intellectual Property Policy. It earmarks the IP Policy as one of the core elements needed to thrust South Africa toward a knowledge economy. This objective is the cornerstone of the Government's broader National Development Plan which includes a greater emphasis on innovation, improved productivity and better exploitation of comparative and competitive advantages. South Africa is also focusing on creating an enabling environment for businesses to operate. The 2018 World Bank Ease of Doing Business Report (EDB) notes two areas of improvement in 2018. These include South Africa making starting a business easier by reducing the time for online business registration and the country improving the monitoring of electricity outages through recording data.

518. There are various Government schemes that assist small businesses and start-ups. The IDC (Industrial Development Corporation), founded in 1940, is a state-owned finance institution. It functions as a means to generate balanced and sustainable growth in Africa. The IDC funds start-ups and existing businesses up to a maximum of ZAR 1 billion. The Small Enterprise Finance Agency was established in 2012 and has the mandate to foster establishment, survival and growth of SMMEs. They also aim to contribute to poverty alleviation and job creation. SEFA provides loans from ZAR 50 000 to ZAR 5 million to SMMEs and co-operatives. The Isivande Women's Fund specialises in start-up funding, business expansion, rehabilitation as well as financing.

519. The IP Policy is aimed at promoting local manufacture, utilising and preserving the country's resources, encouraging innovation and empowering the domestic stakeholders to take advantage of the IP system. The IP Policy acknowledges that there is no automatic correlation between an increase in protection of IP and an increase in innovation. However, the South Africa Government believes a stronger framework is required to ensure that other objectives are met, including access to public health. South Africa regards the IP system as an important policy instrument to promote innovation, technology transfer, research and development and economic growth. However, the public understanding of benefits remains incomplete. In this regard, South Africa recently co-hosted the High-Level Conference on Respect for Intellectual Property with the World Intellectual Property Organization (WIPO), the International Criminal Police Organization (INTERPOL), the World Customs Organization (WCO) and the World Trade Organization (WTO). More than 400 participants from a broad range of countries and sectors came together to discuss various IP issues ranging from the economic value of IP and its public value, to the practical challenges that face authorities when enforcing IP frameworks.

520. As to some examples of start-ups, there are a good number of companies and start-ups in South Africa that would not just be classified as big but also innovative. South Africa has made a huge impact in science and technology. Several important scientific and technological developments originated from South Africa. An early internet security company started by Mark Shuttleworth was bought by VeriSign, while another South African born and educated entrepreneur, Elon Musk went on to found companies like Tesla Motors, PayPal and SpaceX.

12.15 Colombia

521. Colombia is extremely interested in the promotion and development of the creative industry, which is why it issued Law No. 1834 of 2017 promoting the creative economy (Ley Naranja – Orange Law), presented under agenda item 1. Our interest is justified, because "the creative and cultural industries reportedly generate revenues of USD 2.250 billion and 29.5 million jobs worldwide, employing approximately 1% of the active population". In Latin America and the Caribbean, estimates suggest that the creative industries generate USD 124 billion worth of revenue, or 2.2% of the regional GDP (Ernst & Young, 2015).

522. The "orange" sectors of Colombia include activities that are different from those of the great creative economies of the world capitals. Opting to "squeeze the orange" may help to solve the country's production and employment challenges. Colombia has an enormous potential for developing the orange economy, linked with the need to take advantage of the demographic dividend (Buitrago & Duque, 2013). The development and consolidation of the creative sectors is essential to generate employment and value added, transform production, increase competitiveness and boost exports, and attract foreign direct investment (FDI) (Duque, 2018; Benavente & Grazi, 2017).

523. The development of the creative economies will bring benefits to the rest of the economy, including tourism. Creativity and design, being closely linked to innovation, contribute to the proliferation of new ideas and increase the probability of their reaching the business and marketing stages (Hollanders & Cruysen, 2009).

524. Colombia's policy to harness the potential of the orange economy will be conducted on three fronts:

- Establishment of an institutional environment conducive to the development and consolidation of the orange economy and the consolidation of information on the different sectors of the orange economy;
- Development of the necessary conditions and public goods for the different sectors of the orange economy and the so-called Orange Development Areas (ADN). This includes human capital development for the orange economy, protection and promotion of intellectual property, financing mechanisms, and stimulation of domestic consumption and exports of orange economy goods and services; and
- The development of tools to help generate "orange value added" transversally throughout the Colombian production system.