



INTELLECTUAL PROPERTY AND INNOVATION: EDUCATION AND DIFFUSION

COMMUNICATION FROM SWITZERLAND

The following communication, dated 22 February 2016, is being circulated at the request of the delegation of Switzerland.

1 INTRODUCTION

1.1. The agenda item *IP and Innovation* and topics proposed in past meetings intend to stimulate a discussion in the TRIPS Council on the ways in which adequate IP protection can best foster innovation and promote economic development in the process. The latter is a key objective of the TRIPS Agreement and part of the mandate of many national intellectual property systems.

1.2. Switzerland considers adequate and effective IP protection and enforcement to be important components of a regulatory framework, which itself is one prerequisite of a policy environment conducive to promoting innovation.

1.3. With the present submission, Switzerland wishes to encourage Members to share their experience concerning the role education plays in the use of intellectual property rights for the creation and commercialisation of innovative products and services, and more generally in the diffusion of knowledge concerning the role of the intellectual property system and how it functions.

2 THE SITUATION OF SWITZERLAND

2.1. Switzerland is a land-locked country with no natural resources except for waterpower and limited amounts of minerals such as sand, gravel, clay, lime and salt. Switzerland's economic policy is therefore to invest in human resources and brainpower. In order to remain competitive in today's globalised world, Switzerland strives to provide optimal framework conditions for businesses by providing the necessary infrastructure and economic freedom to allow enterprises and individuals to invest in innovative undertakings, and to grow and adapt to a fast paced and constantly changing economic environment.

2.2. Therefore, particular attention has been given to nurturing an innovation culture in Switzerland. Over time, this focus has eventually resulted in a comprehensive integration of the innovation concept within the business culture of the Swiss economy and its educational system. Today, Switzerland scores well in global rankings on innovation and competitiveness.¹ However, continuous efforts, pro-activeness and incentivising creativity are required to avoid stagnancy and allow further progress.

¹ Global Innovation Index 2015 (<https://www.globalinnovationindex.org/userfiles/file/reportpdf/GII-2015-v5.pdf>); Global Competitiveness Index 2015 (http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf).

2.3. An effective and well-functioning IP system helps innovators obtain a return on investment and a reward for their labour. If potential innovators are not aware of IP rights and make no use of them, there may be fewer incentives to innovate, thus preventing a country from fully exploiting its capacity to innovate in the long run. Accordingly, education and the diffusion of IP knowledge within a country's business community as well as among the general public are more than just a "nice to have". They are quintessential for valuing the IP system put in place at the national level. Such a system will only be accepted and understood by the people and used by innovators and creators if a government provides relevant education and helps diffuse knowledge about the IP system, its use and potential value for a country and the well-being of its society.

3 LESSONS LEARNED: ADJUST IP EDUCATION AND DIFFUSION ACCORDING TO AGE GROUPS

3.1. Providing education and training on IP rights, on their philosophy and operation is key to putting an IP system to maximum use for the promotion of innovation and creativity. There is no single or best way to raise awareness or put an IP education and training system in place. Much depends on a country's particular circumstances, stage of development, economic priorities, know-how and other factors.

3.2. Nonetheless, there are also important common aspects in every strategy for raising awareness of the potential that an IP system holds and for providing an adequate level of IP knowledge within the educational system.

3.3. Switzerland believes that IP education should be tailored to age groups. For instance, pupils between 6 and 16 are more likely to have contact - with and thus be more interested and responsive to - copyright and trademark issues in comparison to aspects of patent or design protection. In primary and secondary levels of education, it seems, therefore, evident and useful to put a focus on these IP rights. In contrast, college and university students as aspiring young entrepreneurs and innovators are more likely to be interested in the use and application of patents, designs, trademarks, as well as IP strategies which teach them more comprehensively how to establish and manage an IP portfolio. Such knowledge is thus best suited for diffusion in higher educational institutions or professional training courses.

3.4. The following is a presentation of projects and initiatives undertaken in Switzerland on IP education and diffusion at the different levels of the Swiss education system.

3.1 Primary school level

3.5. At Swiss primary schools, the focus of IP education is on copyright issues. Online information tools and guidelines have been set up in schools in order to nurture the understanding of the *raison d'être* for copyright and to promote their fair handling by youngsters. Three popular examples are the Digital Copyright in Education project² (DICE), the "fair kopieren"³ (fair copying) platform, and the guidelines on "Urheberrecht in Schulen"⁴ (copyright in schools). The Swiss government set up a nationwide programme to promote media competence among young people which also deals with copyright issues and the proper handling of digital data. Starting in 2016, this programme will be a permanent division within the Swiss Federal Department of Home Affairs.

3.6. Textbooks teach students about copyright issues that arise on the internet and in the digital economy in general. For example, "Medienkompass"⁵ (Media Compass) provides a useful tool for teachers for instructing their students in how to correctly use digital files and information on the internet early on in their education, thus avoiding conflict with IP rights.

² More information about the DICE project is available at: <http://www.diceproject.ch/>.

³ More information about the platform can be found at: <http://www.fair-kopieren.ch/urheberrecht>.

⁴ More information about the copyright in schools guidelines is available at:

<http://guides.educa.ch/fr/droit-dauteur> <http://guides.educa.ch/fr/droit-dauteur>.

⁵ The concept of the indicated textbooks is available at: <http://www.lehrmittelverlag-zuerich.ch/Lehrmittel-Sites/Medienkompass/%C3%9CberdasLehrmittel/Konzept/tabid/574/language/de-CH/Default.aspx>.

3.7. "Lehrplan 21"⁶ (Curriculum 21), a school reform aimed at harmonising education in Swiss cantons, has as one of its objectives to adapt education to the digital environment. Part of the *Lehrplan 21* is the adoption of a new learning module "Media and Computer Science". The objective is to prepare the younger generation for the challenges of the internet and teach them how to interact responsibly with social media, including by introducing them to aspects of copyright protection and of other relevant IP rights.

3.2 Secondary school level

3.8. At high school, students have the option of choosing law and economics as their major subject. Part of this is also the teaching of IP rights and obligations.

3.9. In addition to the regular curriculum, there are special optional programs which allow students a very practical hands-on approach to the topic of intellectual property and innovation: one of these special programmes is organised by *Young Enterprise Switzerland (YES)*, a non-profit organisation which develops and supports practice-oriented business training programmes for students. The aim is to interlink the economy with schools and to foster innovation and entrepreneurship in Switzerland starting from a young age. Students are enabled to develop an understanding of social and economic relationships, and to think and act as entrepreneurs⁷. YES belongs to the European Organisation "Junior Achievement Europe"⁸, which in turn is part of "Junior Achievement Worldwide". This means that the YES programmes are also present in other countries, providing a valuable international exchange thanks to a large international network.

3.10. YES' "Company Programme" is a one-year-project for students in high school. The students work in teams and establish and run a real company. Each of the students is assigned a role as CEO, CFO, Head of Marketing, IT, Sales, etc. As a team, they create a company name and a logo, invent a product or service, find shareholders, write a business plan, set up stands at fairs, etc. Within a few months, they set up a small but real-life enterprise and have to face many of the challenges that the business world poses.

3.11. A good business idea is needed for a successful project year. Young students are creative and innovative minds: wallets made of old plastic bags, foldable flower vases, pencil cases out of broken bike tyres, energy candies are just some examples of their ideas. The programme is not only a challenging school project but also a competition: in 2015, 181 student companies participated in the programme. At the end of each year, prizes are awarded for special achievements (i.e. Best Team Award, Most Innovative Product Award, Best Corporate Design Award, etc.). YES selects the student group with the best national company project to represent Switzerland at the European Competition, which brings together the best student companies and their projects from all of the participating European countries.

3.12. A promising business idea on its own, however, is not enough. To turn a good idea into a successful product or a sought after service on the market, know-how about intellectual property can help. With workshops held at the beginning of the project year, factsheets and presentations on legal questions as well as with individual consulting at various stages of the project, students get to know the most important IP facts with a focus on trademark and copyright issues before stepping out into the "real" business world. This way, students are prepared when having to decide, for example, on a company name, a product and its name, logo or trade mark, and will know what they have to pay attention to before they use pictures from the internet for their own business plan or for advertising their product or service on their website. They get answers to questions like: can we print pictures from Google on our T-shirts? Can we use a Beatles song in a promotional film? Is our self-made app protected by copyright? If IP rights are at stake, what are the options for entering into an agreement with the right holder as licensor or with interested licensees and other users?

3.13. The Swiss Federal Institute of Intellectual Property (IPI) is one of the partners of this Company Programme. IPI provides the project members with IP information brochures and

⁶ Further information about the ongoing school reform is available at: <http://vorlage.lehrplan.ch/index.php?nav=200&code=b|10|0&la=yes>.

⁷ More information is available at: <http://www.young-enterprise.ch/index.php/en/programmes/company-programme>.

⁸ More information is available at: <http://www.jaeurope.org/>.

regularly holds workshops on intellectual property for participating students and teachers. This year, IPI will grant an "IP-Management Award" for the team that has best implemented IP protection in their company. This award and the programme in general make a valuable contribution to young people's awareness of innovation and its protection.

3.3 University and young professionals

3.14. At the higher level of education, it is the Swiss universities which offer IP education, be it at bachelor or master level. To highlight a few: the University of Neuchatel provides a Master of Law programme with a specialisation in intellectual property⁹. This master programme teaches national and international IP, dedicating particular attention to the needs of small and medium sized enterprises and to technology transfer. Aside from regular lectures and programmes, the faculty of law at the University of Geneva organises a yearly conference on IP¹⁰ which attracts notable IP experts and advances the ongoing debate on various global issues of IP. The "Fernfachhochschule Schweiz"¹¹ (Swiss Distance Learning Universities of Applied Sciences) offers an IP Certificate of Advanced Studies (CAS), which teaches participants practice-oriented IP knowledge with a focus on trademark and patent law, copyright, unfair competition and IP valuation. The World Trade Institute¹² in Bern offers weekly courses on IP, including general courses on national and international IP, but also more specific modules on IP know-how relevant for companies, as well as expert courses on IP and trade and other cross-disciplinary topics.

3.15. For young business persons, the Commission on Innovation and Technology, a Swiss government body, offers a training programme named *Startup-Campus*¹³. A consortium of universities and colleges in eastern Switzerland, the programme offers three specific courses in Zurich, Winterthur and St. Gallen. In these courses, company founders are supported at each development stage of their enterprise. The module "IP Protection"¹⁴ provides basic and necessary IP knowledge and prepares an appropriate IP strategy for any given business plan of the company. This is particularly relevant for start-ups since the lack of securing of IP rights in time may pose an existential threat to auspicious young enterprises at a later stage of their development, for example when they need financing and look for potential investors.

3.16. Programmes designed for professionals are available in a variety of forms. For instance, IPI offers customised training courses related to IP for professionals¹⁵. Such training is in demand both from SMEs and multinational companies headquartered or otherwise active in Switzerland. IPI provides a specific online platform entitled "envisioned - created - protected"¹⁶ tailored to the particular needs of SMEs and providing them with a concise overview of all important information on IP. IPI is also a major contributor to the "Stop Piracy Campaign", which raises awareness and informs the public of the risks of counterfeiting and piracy¹⁷.

3.4 Education and diffusion in the private sector

3.17. When thinking about IP education and diffusion in a broader context, the private sector has an important role to play. There are associations for most industry branches in Switzerland. Among other tasks, they support their members with technical knowledge including providing advice on intellectual property rights.

3.18. The "Association of Researching Pharmaceutical Enterprises of Switzerland"¹⁸ maintains an information platform about the particular importance of intellectual property for this field of

⁹ See also: <http://www2.unine.ch/mlawentrepriseinnovation/cms/op/edit/lang/fr/pid/3443>.

¹⁰ See also: http://www.unige.ch/droit/jdpi/programme_en.html.

¹¹ See also: https://www.ffhs.ch/data/File/kurzportraet_en.pdf.

¹² More information is available at: [http://old.wti.org/courses/mile/curriculum/ii10-intellectual-property-rights-i-ii/?tx_nccr_pi1\[filter\]\[position\]=researcher&cHash=8594d08e02b8f02a34a949ea69851809](http://old.wti.org/courses/mile/curriculum/ii10-intellectual-property-rights-i-ii/?tx_nccr_pi1[filter][position]=researcher&cHash=8594d08e02b8f02a34a949ea69851809).

¹³ More information is available at: <http://www.startup-campus.ch/en/>.

¹⁴ See also: <http://www.buerocorrodi.ch/de/2015/10/19/ip-know-how-fuer-start-ups/>.

¹⁵ More information is available at: <https://www.ige.ch/en/training/what-we-offer.html>.

¹⁶ See also: <https://kmu.ige.ch/en/home.html>.

¹⁷ More information is available at: <http://www.stop-piracy.ch/?lang=en-US>.

¹⁸ See also: <http://www.interpharma.ch/fr/place-pharmaceutique/2609-il-faut-protoger-la-proprieete-intellectuelle>.

technology. "Promarca"¹⁹, the Swiss union for branded articles provides information to Swiss companies about adequately protecting trademarks at the national and international level and how they can protect themselves against counterfeiting and piracy.

3.19. The above-mentioned "Stop Piracy Campaign" is a good example of a public private partnership (PPP) setting up a programme for the diffusion of IP knowledge at the national level, addressing all ages and educational levels of the public. With the knowledge that just about everything that has a good reputation is at risk of being copied, the "Stop Piracy Campaign" seeks to raise awareness of the far-reaching negative impacts of counterfeiting and piracy.

4 STEM

4.1. STEM stands for Science, Technology, Engineering, and Mathematics. The promotion of STEM fields in the educational system has an important link to innovation and thus also a link to IP education and diffusion. A large proportion of innovators have an academic or professional background in STEM. Therefore, Switzerland particularly focuses on initiatives that foster a sufficient supply of young academics emerging from these fields. IP education and diffusion is part of the Swiss promotional activities within the STEM community.

4.2. Students studying STEM subjects have an opportunity to grasp basic knowledge on patent, trademark and copyright protection necessary for future engineers and scientists. For example, the Swiss Federal Institute of Technology in Lausanne (EPFL) offers its bachelor and master students a course "Introduction to Intellectual Property Law". The basics of the intellectual property system and innovation policy are also taught as part of the Professorship for Intellectual Property of the Center for Law and Economics of the Swiss Federal Institute of Technology in Zurich (ETH Zürich). The Center organises workshops and lectures on the Law and Economics of Innovation, providing an overview of current interdisciplinary research on innovation, intellectual property, antitrust and technology policy.

5 CONCLUDING REMARKS

5.1. For many countries the promotion of innovation is key to remaining competitive in a globalised and fast changing environment, particularly for countries like Switzerland in terms of its economy. In this context, an adequate IP system is one of the prerequisites for creating a supportive policy environment for innovation.

5.2. Switzerland considers raising the awareness of the opportunities offered by the IP system and providing an adequate level of IP knowledge as part of its educational system to be crucial. IP education needs to be tailored to the particular needs and interests of the audience, be it the different age groups among young people, academics or practitioners in the private sector.

5.3. Despite the work undertaken so far, Switzerland is fully aware that in a fast-paced environment, additional efforts are needed to improve IP education and diffusion at its national level. New developments, breakthrough technologies and resulting needs in the economy must be carefully monitored and strategies adapted to ensure that the policy framework continues to support an environment that is conducive to innovation.

5.4. Cooperation and exchange of experience with partner countries, including within the context of the WTO TRIPS Council, are useful and can be a source of inspiration and learning as to how WTO Members can better address this challenge today and in the future.

5.5. Every WTO Member sets its own priorities according to its particular situation and special development goals. Switzerland is convinced, however, that every WTO Member can benefit from implementing an appropriate and workable IP system by taking its particular context and needs into account so as to better perform and succeed in areas where it already possesses a potential for creativity or to become innovative in the future. IP education and diffusion are important

¹⁹ See also: <http://www.promarca.ch/index.php/fr/connaissance-des-marques/marque-et-droit/protection-internationale>.

components of any national IP strategy for the efforts and investment made in the setting up of the IP system to pay off and for benefits to be maximised.

5.6. Switzerland hopes that the examples presented in this submission provide Members with useful insights into some of the projects and programmes put in place in Switzerland to teach and diffuse intellectual property and innovation know-how at different levels of education. We look forward to learning from others in the TRIPS Council how they have addressed this task at their national level.
