Create-Protect-Innovate

Bringing ideas to market: Part II | Syllabus

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In this course, you will gain an understanding of the main categories of intellectual property (IP) rights, their primary features and how to apply these rights.
The emphasis is on patents and on the WHAT, WHEN and HOW of protecting inventions. Further topics include how to search for patents and how to develop an IP strategy.

Modules	Topics covered	Case Studies	Key takeaways	
MODULE 1 Grant of patents	– End-to-end patent grant procedure – Patentability requirements at the EPO – Patentable subject-matter – Patent application requirements – Invention requirements – Amendments – Understanding claims and drafting	– Environmentally friendly closed-loop shower, invented by a European Inventor Award finalist – Turning pineapple leaves into a sustainable alternative to leather, invented by a European Inventor Award finalist – The toy ball patent	– There are different routes for filing a patent application and they are chosen by the applicant according to their business strategy in each case. – A patent application should be filed at the right moment, when enough information about the invention is already available and it has not yet been disclosed to anybody. – The claims define the invention. – Prior art means any disclosure available before the filing of a patent application. – Once filed, an application goes through different steps until grant. Post-grant opposition proceedings are possible and are centralised at the EPO. After the opposition period, patents can only be challenged in front of national courts.	– Granted patents fulfil all the requirements of the EPC. – The grant or refusal of an application will follow communication between applicant and patent examiner. – The subject-matter defined by the granted claims will be new and inventive over the prior art. Specific methodologies exist for the assessment of these requirements. – Other important requirements are clarity, sufficiency of disclosure and unity. – Applicants are not allowed to improve their position by making amendments not disclosed in the application as filed. Well-drafted applications provide a basis for any necessary amendments.
MODULE 2 Enforcement of patents	– Patents and their role in business – What a patent protects (“scope” of a patent) – Introduction to the various types of patent infringement – Fundamental aspects of infringement proceedings – Validity of a patent as prerequisite for enforcement – Licensing – Alternatives to patent infringement proceedings	– Wind turbines and how to understand claims – The invention of wifi	– Patents are tools for securing business interests. – Enforcing a patent is entirely the responsibility of the applicant. – Use the independent claims to identify a potential infringer. – Identify the right party as the potential infringer. – There are many ways to enforce a patent and to resolve disputes.	– There is more to gain than money. Think strategically. – What to do when you are the infringer. – Always maintain dialogue with the other party.
MODULE 3 Scouting and assessment of technology	– What technology transfer is and how it works within a university/research laboratory setting – The role of a Technology Transfer Office – Assessment of who owns the rights to an invention – How to perform a technology search and why someone would want to	– Revolutionary magnetic resonance imaging (MRI) techniques, developed by researchers at a German research institute – Laser system to remove sea lice from salmon, produced by a Norwegian engineering company – Plasters which can treat open wounds, developed in a Turkish university laboratory – Anti-lock braking system for pedal bikes, produced by an Italian firm	– Technology transfer (TT) involves the movement of technology and know-how from one party to another. – TT can play a crucial role in the commercialisation of early stage ideas. – A Technology Transfer Office (TTO) is a unit specialising in TT. – They exist in many companies and most universities and research institutes.	– Technology scouting is a useful tool in the evaluation of new technologies. – What to do when you are the infringer. – Always maintain dialogue with the other party.
MODULE 4 IP commercial-isation	How IP can be commercialised – How to choose the right types of IP commercialisation – What it takes to come to a licence deal – How raising capital for a technology start-up is leveraged by patents; how it is a form of IP commercialisation and consequently important for the business success in general – Basics of valuing IP assets	– Lely – cow-milking robot – AMSilk – spider silk fibres for shoes and nail polish – Lontra – blade air compressor – Perceive3D – imaging technology for surgeons – Optinose – curing airborne diseases – Baseclick – click chemistry – FLASH MRI – imaging of medical scans	– IP commercialisation is an intrinsic part of the business model. – A business model will change when the company grows and so will the IP commercialisation. – Decisions regarding IP commercialisation can be structured and systematically assessed. – The most successful commercialisation decision is a balanced one that delivers value for all stakeholders.	– Patents are assets, providing sustainable business value, but can also be tools for leveraging negotiations. – Marketing and negotiating are important skills for a start-up seeking monetisation. – The valuation of IP is a complicated challenge and is ultimately the result of negotiation. – Patents are the backbone of commercialisation by a technical venture.
MODULE 5 Use of IPRs	– Rationale for protecting inventions – Deciding on the appropriate IP strategy – Examples of successful patented inventions from different technical fields, including the benefits and challenges of patenting – The role of IP in business strategy and the commercialisation process	– **Green technology:** Green hydrogen from sunlight and air – **Environmental engineering:** Supersponge for oil spills – **Biotechnology:** Modified mRNA for live-saving vaccines – **Artificial Intelligence:** Lasers and AI for healthier salmon – **Mechanical engineering:** Strong fasteners for quick release – **Digital communication:** Advances in organic semiconductors – **Medical technology:** P3D - image-based surgical navigation – **Robotics:** Lego programmable robots – **Food technology:** Gluten substitutes from corn	– There are different ways of commercialising IP. – Developing an IP strategy is key for the successful commercialisation of inventions. – Patents can be used to prevent others from copying your inventions. – Licensing is a key commercialisation strategy. – Patents can attract venture capital funds and investors.	

ASSESSMENT	Test with multiple-choice questions at the end of each module. Final assignment consisting of a set of multiple-choice questions and an open question (250-500 words).
CERTIFICATION	EPO certificate to be downloaded after completion of all activities