

## Bringing ideas to market: Part I | Syllabus

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <b>MODULE 1</b><br>Introduction to IP                 | <ul style="list-style-type: none"> <li>– The nature of knowledge and know-how</li> <li>– Legally protecting intangible goods</li> <li>– Different types of IP rights and their uses</li> <li>– Benefits of IP rights</li> </ul>                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>– Environmentally friendly closed-loop shower, invented by a European Inventor Award finalist</li> <li>– Woven carbon fibre materials with a range of applications, including to cover the rotor blades of Ingenuity, NASA's first helicopter deployed to Mars</li> </ul>                                                                                                                                                                 | <ul style="list-style-type: none"> <li>– Knowledge and ideas have the characteristics of public goods (non-excludable, non-rivalrous).</li> <li>– In the knowledge economy, wealth creation is based on intangible resources.</li> <li>– Original ideas can be protected to secure ownership, including as a sound basis for sharing knowledge.</li> </ul>                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>– IP can be used to create exclusivity, foster innovation and help attract funding.</li> <li>– A single product can be protected using different types of IP rights (IPRs).</li> <li>– Specific national and international regulations apply to each type of IPR</li> </ul>                                                                                                                                                                    |
| <b>MODULE 2</b><br>Patent essentials                  | <ul style="list-style-type: none"> <li>– What is a patent?</li> <li>– Role and relevance of patents</li> <li>– Patentability requirements</li> <li>– Exceptions and exclusions from patentability</li> <li>– The patent system and its role in fostering innovation and economic growth</li> <li>– Requirements for patent applications</li> <li>– What to consider before filing</li> <li>– What happens during the grant procedure</li> </ul> | <ul style="list-style-type: none"> <li>– A process for turning pineapple leaves into a sustainable alternative to leather, invented by a European Inventor Award finalist</li> <li>– Flexible solar cells for portable devices, invented by winners of the European Inventor Award</li> </ul>                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>– Patent protection means an invention cannot be commercially made, used, distributed, imported or sold by others without the patent owner's consent.</li> <li>– The general principle is that breach of these conditions constitutes infringement.</li> <li>– An inventor intending to patent their idea must keep their invention secret at least until the application is filed.</li> <li>– Patents foster innovation, commercial competitiveness and the dissemination of new technical knowledge.</li> </ul> | <ul style="list-style-type: none"> <li>– Patentability requirements vary from country to country; the European Patent Convention (EPC) provides a comprehensive list of subject-matter excluded from patentability in Europe (Article 52, Article 53).</li> <li>– Though patent protection gives the patent owner an exclusive right, this right is limited both in territory and time.</li> <li>– The maximum term of a European patent is 20 years from the filing date.</li> </ul> |
| <b>MODULE 3</b><br>Introduction to patent information | <ul style="list-style-type: none"> <li>– Why patent information is important</li> <li>– The structure of patent documents</li> <li>– The difference between prior art and legal event information</li> <li>– Everyday situations in which patent information matters</li> <li>– How to find and use patent information</li> </ul>                                                                                                               | <ul style="list-style-type: none"> <li>– Energy-saving rotary air compressor, invented by a European Inventor Award finalist</li> <li>– A method for producing gold nanoparticles using algae extract</li> </ul>                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>– Public patent information is a key pillar of the patent system and a rich source of technical, legal and business information.</li> <li>– Most technical details about inventions and technologies are only disclosed in patent documents.</li> <li>– Patent information should be used at all stages of the innovation process</li> </ul>                                                                                                                                                                      | <ul style="list-style-type: none"> <li>– There are numerous commercial and free-of-charge patent databases and search interfaces for retrieving and assessing patent information.</li> <li>– It's crucial to create an informed search strategy.</li> <li>– Search concepts based on patent classification symbols are a powerful tool.</li> </ul>                                                                                                                                    |
| <b>MODULE 4</b><br>Patent information in practice     | <ul style="list-style-type: none"> <li>– The benefits of patent information in the innovation process</li> <li>– Prior art searches and patent monitoring in practice</li> <li>– Freedom-to-operate analysis and patent intelligence in a nutshell</li> </ul>                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>– Fishing hook cover to save seabirds, invented by European Inventor Award Finalists</li> <li>– Sensor implants for improved blood glucose control</li> <li>– Electrolysers for hydrogen production</li> </ul>                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>– Retrieving and assessing the technical content of patent documents is key to get an educated view of the state-of-the-art with respect to a technology or technical field.</li> <li>– Monitoring the pool of patent information is of crucial importance to stay on top of developments in your field.</li> </ul>                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>– The most widely used approach to assess the risk of infringing on others' IP rights is the freedom-to-operate analysis.</li> <li>– With patent intelligence, you can identify trends and extract meaningful information to support educated decision-making.</li> </ul>                                                                                                                                                                      |
| <b>MODULE 5</b><br>Developing an IP strategy          | <ul style="list-style-type: none"> <li>– The importance of IP strategy</li> <li>– IP rights management</li> <li>– Patent filing strategy and action</li> <li>– Costs and benefits of IP rights</li> <li>– Commercialising IP</li> </ul>                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>– Flexible solar cells for portable devices, invented by winners of the European Inventor Award</li> </ul> <p>Plus IP strategy aspects of:</p> <ul style="list-style-type: none"> <li>– Magnetic nanoparticles to diagnose disease, invented by a European Inventor Award finalist</li> <li>– A process for turning pineapple leaves into a sustainable alternative to leather, invented by a European Inventor Award finalist</li> </ul> | <ul style="list-style-type: none"> <li>– Successful IP strategy is both a consequence of and a strong impetus for your company's strategy.</li> <li>– It's important to have an IP strategy, and to implement it.</li> </ul>                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>– There are many cost and benefit aspects to consider before devising your IP strategy and in particular before filing a patent application.</li> <li>– The decision to commercialise rests on a variety of considerations, including the size of your company.</li> </ul>                                                                                                                                                                     |
| <b>ASSESSMENT</b>                                     | 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).                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>CERTIFICATION</b>                                  | EPO certificate to be downloaded after completion of all activities                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |