3.2

Evaluation of one's idea or technology

Goal	The main goal of the course is to clarify the importance of evaluation of ideas and technologies as a part of the innovation process and to show participants how to carry out the evaluation. The aim is also to point out the possibilities of using patent information in the evaluation process, especially when examining the novelty of technology.
Format	Seminar combined with workshop (lecture by trainer, practical demonstration, exercises)
Recommended duration	2 — 2,5 hours

Content of the training activity	**Evaluation — what, when, how**
	● Defining what evaluation is and what is it good for
	  • definition of evaluation and indication of its benefits
	  • assessed aspects of the technology (problem solved, novelty, products and markets, competitive advantage, rights, technology readiness level, IP protection)
	  • obtaining the necessary information
	  • evaluation conclusion
	● Determining when to conduct evaluation in the innovation process
	  • defining the stages within the innovation process when it is appropriate to evaluate an idea or technology
	● Recommendations on how to perform an evaluation
	  • how to assess the novelty of the technology — using patent information
	  • how to assess the competitive advantage of the technology
	  • how to identify technology readiness level
	  • how to perform a very basic IP protection and commercialization strategy
	
	Demonstrations of searching for patent information (0,75 hour)
	● applicability of patent information
	● sources of patent information
	● practical demonstration of searching for patent information (Espacenet)
	● Practical exercises

Expected learning outcomes	After taking this course/training activity, the PhD student should be able to: ● know, where to search for usable patent information and conduct basic assessment of the novelty of his/her idea or technology ● formulate a competitive advantage of his/her idea or technology ● identify technology readiness level of his/her technology and to determine what follows from this fact ● make a very basic IP protection and commercialization strategy

Link to career opportunities in life-sciences	Whatever professional path the PhD student will choose in the future, whether academic research or business, the evaluation of ideas will be an essential part of their work. ● In (academic) research, it is necessary to compare one's own research idea with already achieved research results at the global level. The comparison includes the search for all relevant information (published in scientific journals and projects, company catalogues, patent information etc.) and the determination of differences and the benefits of the expected results of own research. ● In the case of developing one's own business idea or working for a private company, in addition to the above, it is necessary to achieve the target level of technological readiness and to choose an appropriate IP protection and commercialization strategy. The ability to carry out the evaluation will allow students to use their time and available financial resources effectively. It also prevents to re-invent already known technologies.
Recommended training prerequisites	To actively participate in the activity the PhD student should: ● Have clear idea or particular technology in mind (if not, the trainer should have alternative examples to explain the discussed topic) ● Actively participate, but no other pre-requisites are necessary
Sector specifics to be considered	In the field of Life Sciences, there are various features associated with patent protection of inventions (supplementary protection certificates, exclusions from patentability, etc.). They need to be considered when lecturing on IP protection and commercialization strategy and will be covered e.g. in the course "IP law & Legal regulations Introductions". Any clinical trials and other approvals that require additional time and funding should also be considered when designing technology commercialization.
Recommended further steps	● Active participation in other topics in the field of technology transfer is strongly recommended, especially: start-ups, IP law, IP strategy ● Regular assessment of the novelty of their ideas and technologies using patent information
Trainer/facilitator qualification	Trainer should be an expert in technology transfer with experience in patent information searching and have experience in carrying out the evaluation of new ideas and technologies.

Recommendations and suggestions for course/activity setup and methods used:

<table>
<tr><td rowspan="4">Suggested scenario</td><td>Timing</td><td>Activity description</td></tr>
<tr><td>1 hour</td><td>Lecture with specific examples from practice on the topic:
● “Evaluation — what, when, how”

Recommended structure of the lecture:
● Defining what evaluation is and what is it good for
Defining evaluation as a process that allows everyone to implement his/her intention efficiently in terms of time and money.
● Determining when to conduct evaluation in the innovation process
Emphasize that evaluation should be carried out in the early stages of research, during the research and after achieving desired results.
● Recommendations on how to perform evaluation
We recommend to present specific examples of real or model situations for individual assessed aspects of the technology.</td></tr>
<tr><td>0,75 hour</td><td>Demonstrations of searching for patent information
The lecturer should have prepared at least 1 practical examples of searching in the Espacenet.

Recommended types of practical demonstrations:
● search for patent publications on a specific topic in Espacenet using smart search (e.g. folding bicycle)
● search for patent publications on a specific topic in Espacenet using advanced search
● displaying trends in a certain technical area on the basis of searched patent publications
● search for registered trademarks that are similar to the designation presented by the lecturer</td></tr>
<tr><td>0,75 hour</td><td>Practical exercises

Exercises should be focused on searching relevant patent information in Espacenet and drafting an IP protection and commercialization strategy. We recommend dividing students into groups of two to four and assigning them several exercises. These can be based on the specific situations of individual group members or the lecturer will give them a model exercise.</td></tr>
<tr><td>Recommended number of participants</td><td colspan="2">Min: 5

Max: 20</td></tr>
<tr><td>Forms of active engagement</td><td colspan="2">In the second part of the course, the lecturer should demonstrate the search for patent information (in the field of patents and trademarks) in the Espacenet. Demonstrations should graduate so that students can actively repeat their actions and achieve the same results on their smart devices. They should discuss the achieved results.

In the third part of the course, students should search for patent information for their own ideas or technologies. They could perform this activity individually or in the groups. If some students do not have a specific idea or technology ready, they will work on an assignment from a lecturer.</td></tr>
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Recommended pretraining activities	Participants can be asked to: ● Watch video on: https://worldwide.espacenet.com/ ● Try to search for patent information according to a simple assignment from a lecturer: https://worldwide.espacenet.com/; www.tmdn.org/tmview/#/tmview ● Read: www.nasa.gov/pdf/458490main_TRL_Definitions.pdf
Follow-up activities/ Take home messages	Evaluation of their real ideas and technologies — participants should be given the opportunity to consult the results with a lecturer or external experts.
Training handouts	● The presentation ● List of patent information sources ● Examples to be used in the practical demonstration
Reflection questions	● What is the purpose of evaluation in the innovation process? ● When is it advantageous to carry out an evaluation? ● What technology-related aspects should be considered in the evaluation? ● What does it mean that a technology is "new"? ● What types of information need to be considered when assessing a new technology? ● How can the information on current technology readiness level be used? ● What does the IP protection and commercialization strategy include and what is it for?
Venue requirements	Room with a possibility for participants to sit at the table and stable WiFi
Technical and material requirements	Computer, beamer for ppt, flipchart or similar, otherwise no equipment needed.
Resources to explore:	English: https://nptt.cvtisr.sk/national-portal-for-technology-transfer/technology-transfer.html?page_id=750 Slovak: https://nptt.cvtisr.sk/sk/transfer-technologii.html?page_id=286 Resources recommended for further reading: ● https://nptt.cvtisr.sk/sk/poskytovane-vzorove-materialy/metodicke-materialy.html?page_id=536 ● https://www.epo.org/service-support/publications.html#tab1