

ENG-632

**Entrepreneurial Opportunity Identification and Exploitation**

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Cursus	Sem.	Type
EDOC General and external courses		Obl.

Contact language	English
Credits	2
Session	
Exam	Oral presentation
Workload	60h
<b>Hours</b>	<b>30</b>
Lecture	30
<b>Number of positions</b>	<b>25</b>

**Frequency**

Every year

**Remark**Not given in 2022-2023. Registration for PhD via IS-Academia, for MA <https://go.epfl.ch/registering-courses-exams>**Summary**

This course focuses on the process of linking technology to market opportunities. Students will gain theoretical and practical knowhow on the process of market opportunity identification and evaluation in the context of new technologies, and on the development of a sound market opportunity strategy.

**Content**

The choice of market opportunities for a new technology is one of the most challenging tasks for innovators and entrepreneurs, yet one of the most profound decisions in the commercialization effort. Therefore, if it is done right it can be a highly rewarding task - not only for the individual inventor and her or his team, but also for stakeholders such as future employees, the school, the region and the country.

The goal of this course is threefold:

- (1) to develop a theoretical understanding of the process of market opportunity identification and evaluation in the context of new technologies,
- (2) to acquire a practical tool (the Market Opportunity Navigator) for identifying, evaluating and strategizing market opportunities for a core technology, and to apply this know-how to support EPFL inventors in their early stage commercialization efforts,
- (3) to get acquainted with other well known business tools (such as the Business Model Canvas and Lean Start-up Methodology) and how they add value to the process of opportunity identification and evaluation.

The diversity of EPFL's competences and the unique research potential of the school provide an extremely favorable setting for this type of course. You will work in heterogeneous teams on the strategic aspects of a new technology. In particular, you and your team mates will be asked to identify multiple market opportunities for a specific technology, and to evaluate these opportunities, so that the technology can be targeted to the most promising market and generate the highest value creation potential.

**Note**

Dr Sharon Tal is a co-founder and former executive director of the Entrepreneurship Center at the Technion, Israel Institute of Technology, and a senior lecturer on marketing and entrepreneurship. She gives lectures and workshops in accelerators and universities around the world, and serves as a mentor in many organizations that aim to help budding entrepreneurs. Sharon has over a decade of experience in marketing and in strategic consulting. Her PhD research looked at market entry decisions of hundreds of startups and its consequences on firm performance and flexibility.

Together with prof Marc Gruber, they developed the Market Opportunity Navigator- an easy to apply business tool for

discovering your most valuable market opportunities. They also co-authored the complementing book: 'Where to Play' (FT publishing).

### Keywords

entrepreneurship, bringing technology to market, market opportunities for technologies, fungibility of technology

### Teaching methods

From a didactic perspective, the course will combine several learning methods.

- Through individual reading, you will get to know the core theoretical concepts and practical know-how underlying the market opportunity identification and evaluation processes. In class, we will discuss these readings and share our thoughts.
- Class lectures will present applicable business tools with detailed explanations on how to apply them, along with numerous examples and cases
- You will work in groups on a new venture proposal, i.e. generate ideas for market applications, identify problems, analyze and evaluate alternatives, to develop a promising strategy for a specific technology. Thereby you will be able to experience the early stages of new venture creation at first hand.
- An important part of this class is peer learning: You will not only see the progress your project is making, but in parallel will be able to observe and learn from the other projects.
- Teams will also be coached by several experts during a coaching session.

As much of the learning will occur in the classroom, class attendance and active class participation are crucial to obtain the value this class is offering. Thus, it is imperative that you come to class prepared. You are also expected to be in class on time out of respect to your fellow students and the lecturer.

Each student may miss one class without penalty, except those during which their team will make a presentation. After more than one missed class, your class participation and overall grade will be lowered. Please note that group work outside the class is an essential element of this course. Expect an above-average workload for this class.

### Expected student activities

Several EPFL founders working on an innovative early-stage technology have been identified prior to the start of this class. They will present their projects early in the course, and we will form student teams around these projects. As team heterogeneity plays a major role in opportunity identification, the lecturer will define the teams according to the individuals preference and background.

Each team is expected to creatively identify several market applications for the technology and evaluate their attractiveness. For the most promising idea, a firm creation roadmap will be developed.

Your team is expected to come up with market opportunities that are innovative and that offer a real potential for high-growth and value creation. The final goal is to develop a document detailing market assessment, the primary market opportunity and a firm creation roadmap.

Overall, students will need to submit 3 assignments:

Assignment Short description Due date

1 Mid-term

presentation Present your core technology and your Market Opportunity Set (based on Worksheet 1) and the evaluation of 3-4 Market Opportunities (based on Worksheet 2) Nov 23

2 Final

presentation Present your primary market opportunity in details and your Agile Focus Strategy (based on Worksheet 3) Nov 30

3 Final report Describe in details the 3 steps of the Market Opportunity Navigator and your primary market opportunity Dec 10

Detailed instructions on course assignments will be given in class.

### Assessment methods

This is a 2 ECTS course. It will be graded based on:

- Individual classroom participation 20%
- Team mid-term presentation 15%
- Team final presentation 15%
- Team final report 50%

To pass this course, you will need to achieve 80% of the grade.

## Resources

### Bibliography

#### Session 1

- Where to Play: 3 steps for discovering your most valuable market opportunities/ Gruber and Tal, Part 1, 4-21
- Shane, S. 2000. Prior Knowledge and the Discovery of Entrepreneurial Opportunities. *Organization Science* 11:
- How to stop playing target market roulette: A new addition to the Lean toolset/ Steve Blank.

#### Session 2

- Gruber, M., MacMillan, I.C., Thompson, J. 2008. Look before you leap: Prior Entrepreneurial Experience, Market Opportunity Identification and the Creation of New Technology Firms. *Management Science* 54: 1652-1665.
- Dyer, J., Gergersen, H. & Christensen, C.. *The InnovatorsDNA*. Harvard Business Review, 2009
- Danneels, E., 2007. The process of technological competence leveraging. *Strategic Management Journal*, 28, 511-533
- Osterwalder, A. & Pigneur, Y. 2014. Value proposition design: How to create products and services customers want. Part 1, 24-75.

#### Session 3

- Aulet, B. 2013. *Disciplined entrepreneurship: 24 steps to a successful startup*. Step 1, Step 2 (optional reading).
- Mullins, J. 2006. *The new business road test: What entrepreneurs and executives should do before writing a business plan*. Chapter 1: 3-23

#### Session 5

- Tal, S., Gruber, M., & de Haan, U., 2017. Market entry decisions, emergence processes & adaptation in new organizations.
- Beinhocker, E., 1999. Robust adaptive strategies. *MIT Sloan Management Review*

#### Session 6

- Osterwalder, A. & Pigneur, Y. 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers and challengers*. Part 1, 14-51.
- Reis, E., 2011. *The Lean startup methodology*. <http://theleanstartup.com/principles>
- Blank, S. 2013. Why the lean startup changes everything. *Harvard Business Review*

### Ressources en bibliothèque

- [Where to play / Gruber](#)
- [\[Article\] The process of technological competence leveraging / Daneels](#)
- [Value proposition design / Osterwalder](#)
- [\[Article\] Disciplined entrepreneurship / Aulet](#)

- [Business Model Generation / Osterwalder](#)
- [\[Article\] How to stop playing target market roulette / Blank](#)
- [\[Article\] Look before you leap / Gruber](#)
- [The innovators DNA / Dyer](#)
- [\[Article\] Prior Knowledge and the Discovery of Entrepreneurial Opportunities / Shane](#)

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- <https://go.epfl.ch/ENG-632>