

MGT-641(c)

**Technology and Public Policy - (c) Technology, intellectual property and innovation policy**

de Rassenfosse Gaétan, Various lecturers

<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
EDOC General and external courses		Obl.

Language of teaching	English
Credits	2
Session	
Exam	Term paper
Workload	60h
<b>Hours</b>	<b>28</b>
Courses	28
<b>Number of positions</b>	<b>20</b>

**Summary**

The class will provide information about what STI support tools exist and why, will explain the rationales and best practices for STI policy intervention and will provide with a sound understanding of why taxpayer money should be used and how to finance STI activities.

**Content****Tentative Outline**

1. Introduction [1 hour]
  - a. Motivation
  - b. Definitions
  - c. Group project guidelines
2. Key theoretical concepts [5 hours]
  - a. The Solow residual
  - b. Knowledge as a public good
  - c. Externality
  - d. Market failure
  - e. Paradox of disclosure
  - f. Knowledge spillover
3. Rationales for STI policy [1 hour]
  - a. The neoclassical view
  - b. The innovation system view
4. Principles of a good policy intervention [1 hour]
  - a. A clear “failure” to solve
  - b. No distortion
  - c. Predictability
5. Conducting impact evaluation studies [3 hours]
  - a. Natural experiments
  - b. Matching method
  - c. Difference – in - differences
  - d. Regression discontinuity design
6. What tools exist (and evidence) [5+3+2 hours]

- a. Cluster policies
- b. Public funding of universities and PROs
- c. Grants (universities, companies; individual, collaboration)
- d. R&D subsidies
- e. Tax credits
- f. Patents (external guest: Julio Raffo from WIPO)
- g. Innovation vouchers
- h. Public procurement (external guest: Emilio Raiteri from EPFL)

## Note

### Target audience

The class is targeted at all EPFL PhD students and post-docs, regardless of whether they want to stay or leave academia/research and regardless of whether they have background training in economic/econometrics. For students who plan to stay in academia/research, the class will provide information about what STI support tools exist and why. For students who plan to leave academia/research to work in policy, the class will explain the rationales and best practices for STI policy intervention. For the other students, the class will provide them with a sound understanding of why taxpayer money should be used – and how – to finance STI activities.

## Keywords

Policies for the knowledge economy; Policy evaluation; Science of Science; Intellectual Property; Entrepreneurship.

## Resources

### Bibliography

Handbook of the Economics of Innovation, Vols. 1&2 (ISBN : 9780444519955);  
The Science of Science Policy: A handbook (ISBN: 9780804770781)

### Ressources en bibliothèque

- [Handbook of the Economics of Innovation vol.1](#)
- [Handbook of the Economics of Innovation vol.2](#)
- [The science of science policy / Husbands](#)

### Websites

- <https://www.innovationpolicyplatform.org/>