

Z-Labs 2022 | LDIS Thesis Proposal

Cognitive Tech Transfer for Sustainable Development: A New Perspective for Universities of Social Sciences of the Future.

Federica Muzi

Type of thesis: Experimental thesis, Start-up idea

Main Subject of the Z-Lab: ESG Infrastructure Lab

Supervisor (and Co-supervisor): Christian Fernando Iaione, Elena De Niccolis

Objectives

According to the EU Commission, Technology transfer (TT) is the process of transferring scientific and technological research results, as well as associated skills and procedures, to the market and society at large [1]. Nowadays, technology transfer is a particularly relevant process for contributing to sustainable development both for the ecological and technological transition. Strategies, funding and skilled personnel are needed to identify potential innovations and turn them into products and services that generate an adequate response to the current needs of the transitions [2]. Without technology transfer, there is a risk for scientific breakthroughs and academic research to remain mere theoretical work, unapplied and unsuccessful for progress. For this reason, Technology Transfer Offices (TTOs) are being established and have the task of intercepting and highlighting all the work carried out within universities and research centers that may have a useful application on the market. TTOs attract investors who keep their antennae pointed at the entire multiactorial ecosystem to offer economic support to the most promising projects, such as spin-offs born from university projects. Plus, the enabling State, intervening with targeted funds and strategies, facilitates the interaction between all these players [3].

Within this context, the following thesis will be aimed at:

- Analyzing the current status of application of TT within universities through literature review;
- Design a potential methodology to enable the process of TT within a University of social sciences;
- Verify a potential application of such Technology transfer with a case study of energetic industrial urban district reconversion;
- Test and validate the methodology through the Law, Digital Innovation and Sustainability degree experience.

Preliminary Research Question

How can Universities of Social Science generate a tech/cognitive transfer to enable sustainable development?

- ***What are the fundamental means and resources for such transfer to occur?***
- ***How does the transfer apply to energy reconversion in industrial districts?***
- ***How can a potential innovative methodology be applied to enable a just digital and ecological transition?***

Type of thesis (Method)

In order to answer to the research question, the experimental methodology of this thesis includes the following steps:

1. Conduct a sound gap analysis in the existing literature;
2. Map and define the stakeholders involved in the process;
3. Define the strategic means and resources for the process.
4. Detect the innovative processes through the definition of a methodology for an effective cognitive tech transfer;
5. Apply such methodology to a case study through interviews and data analysis.

Bibliography

1. 'What Is Technology Transfer? | Knowledge for Policy'. https://knowledge4policy.ec.europa.eu/technology-transfer/what-technology-transfer_en.

2. UN Division for Sustainable Development. 'Transfer of Environmentally Sound Technology, Cooperation & Capacity-Building'. Accessed 19 April 2022. https://www.un.org/esa/dsd/agenda21/res_agenda21_34.shtml.
3. Mise. 'Al via Enea Tech, la prima fondazione italiana dedicata al trasferimento tecnologico'. Accessed 19 April 2022. <https://www.mise.gov.it/index.php/it/per-i-media/notizie/it/198-notizie-stampa/2041391-al-via-enea-tech-la-prima-fondazione-italiana-dedicata-al-trasferimento-tecnologico>.