

FICHE NAVETTE: DOCTORANTS IDEX

SECTOR : Higher Education Institution

LOCATION: France, Grenoble

RESEARCH FIELD: Industrial Engineering, Mechanical engineering, Control engineering

RESEARCHER PROFILE:

□ *First stage researcher,*

INSTITUTION: Univ. Grenoble Alpes, University of Innovation

One of the major research-intensive French universities, Univ. Grenoble Alpes enjoys an international reputation in many scientific fields, as confirmed by international rankings. It benefits from the implementation of major European instruments. The vibrant ecosystem, grounded on a close interaction between research, education and companies, has earned Grenoble to be ranked as the 5th most innovative city in the world. Surrounded by mountains, the campus benefits from a natural environment and a high quality of life and work environment. With 7000 foreign students and the annual visit of more than 8000 researchers from all over the world, Univ. Grenoble Alpes is an internationally engaged university.

A personalized Welcome Center for international students, PhDs and researchers facilitates your arrival and installation.

In 2016, Univ. Grenoble Alpes was labeled «Initiative of Excellence ». This label aims at the emergence of around ten French world class research universities. By joining Univ. Grenoble Alpes, you have the opportunity to conduct world-class research, and to contribute to the social and economic challenges of the 21st century ("sustainable planet and society", "health, well-being and technology", "understanding and supporting innovation: culture, technology, organizations" "Digital technology").

Key figures:

- + 50,000 students including 7,000 international students
- 3,700 PhD students, 45% international
- 5,500 faculty members
- 180 different nationalities
- 1st city in France where it feels good to study and 5th city where it feels good to work
- ISSO: International Students & Scholars Office affiliated to EURAXESS

MANDATORY REFERENCES:

CDP TITLE: Circular Industrial Systems - CIRCULAR

SUBJECT TITLE: **Institutional and political conditions for a sustainable circular industrial system : Application to the Li-Ion batteries case.**

SCIENTIFIC DEPARTMENT (LABORATORY'S NAME): PACTE /G-SCOP

DOCTORAL SCHOOL'S: ED SHPT

SUPPORTER'S NAME: *Thomas REVERDY / Peggy ZWOLINSKI*

SUBJECT DESCRIPTION:

This thesis is part of the Work Package 3 titled 'Circularity conditions and Value chain' of the CDP CIRCULAR (<https://www.communaute-univ-grenoble-alpes.fr/circular-732721.htm>) and wondered about the obstacles the circular economy encounters in the industrial field. Based on the existing literature on the socio-technical transitions (Geels and Schot 2007), we would like to understand why the circular offers are currently penalized in competition with existing offerings, despite the social, environmental or technical benefits they provide. Existing industrial strategies are often trapped in irreversible trajectories or benefits related to past learning and opportunities of the globalization of the value chains (Franco 2017). Strategies to increase the lifecycle of products and the improvement of their reparability are also inhibited by limited capacity of consumers to take it into consideration life cycle assessment in their buying practices. Finally, many standards, technical regulations and intellectual property rights are disadvantaging recycling or re-use strategies (Fischer and Pascucci 2017).

The circular economy is becoming a new frame of public action in the industrial and agricultural sectors. It borrows some arguments from the Transition Management Paradigm (Voss, Smith, and Grin 2009), successful in the energy sector, justifying important public interventions in favor of renewable energies and notwithstanding the enforcement of the European rules of competition in the energy sector (Lauber and Schenner 2011).

This thesis focuses on the conditions for the emergence of a public policy in favor of the circular economy, through changes in norms, regulation, taxes and subsidies. It will identify claims defending the shortening for the circulation of products and economic and political arguments that try to justify 'exceptions' to the existing institutional framework that today favor free circulation of goods. Arguments would come from economical critic of the existing markets, involving notions as "markets failures" (lack of integration of environmental externalities, technological dependence, asymmetry of information on the durability of the products, social and fiscal dumping) or from more political notion such as proximity and solidarity.

Empirically, the thesis will be based on the analysis of domains where the circular economy model has received support of public action. It will attempt to identify emerging dynamics of mobilization of NGO's, political representatives or local authorities, but also proactive strategies of companies. Then it will be focused on the specific case of the electric car batteries recovery and repurposing. Batteries represent a key element of the carbon-free economy with increasing electricity storage needs for transportation and for the management of intermittent renewable energy. Environmental progress in the energy sector will be influenced by the circularity of batteries economy. The thesis will involve the economic actors in questioning how public action, regulatory or economic instruments, European, national or local actions, could participate in the development of practices for products repurposing and remanufacturing.

Fischer, Aglaia, and Stefano Pascucci. 2017. "Institutional Incentives in Circular Economy Transition: The Case of Material Use in the Dutch Textile Industry." *Journal of Cleaner Production* 155: 17–32.

Franco, Maria A. 2017. "Circular Economy at the Micro Level: A Dynamic View of Incumbents' Struggles and Challenges in the Textile Industry." *Journal of Cleaner Production* 168: 833–845.

Geels, Frank W., and Johan Schot. 2007. "Typology of Sociotechnical Transition Pathways." *Research Policy* 36 (3): 399–417. <https://doi.org/10.1016/j.respol.2007.01.003>.

Lauber, Volkmar, and Elisa Schenner. 2011. "The Struggle over Support Schemes for Renewable Electricity in the European Union: A Discursive-Institutionalist Analysis." *Environmental Politics* 20 (4): 508–527.

Voÿs s, Jan-Peter, Adrian Smith, and John Grin. 2009. "Designing Long-Term Policy: Rethinking Transition Management." *Policy Sciences* 42 (4): 275–302.

Candidate profile

The candidate must be qualified in one of the following field: sociology, management, economics or Political Sciences

The candidate should demonstrate competencies in conducting fieldwork (case studies); write and speak French and English fluently; have a demonstrated ability of independent thinking and writing; manifest interest and competencies for team collaboration.

The candidate could be qualified in Industrial Engineering with competencies in sociology of technics, economic sociology, sociology of organization.

ELIGIBILITY CRITERIA

Applicants:

- must hold a Master's degree (or be about to earn one) or have a university degree equivalent to a European Master's (5-year duration),

Applicants will have to send an application letter in English and attach:

- Their last diploma
- Their CV
- A short presentation of their scientific project (2 to 3 pages max)
- Letters of recommendation are welcome.

Address to send their application : Thomas.reverdy@grenoble-inp.fr, Peggy.Zwolinski@grenoble-inp.fr

SELECTION PROCESS

Application deadline: **June 25, 2018** at 17:00 (CET)

Applications will be evaluated through a three-step process:

1. Eligibility check of applications: June 26, 2018
2. 1st round of selection: the applications will be evaluated by a Review Board, July 02, 2018 (Results will be announced the same day).
3. 2nd round of selection: shortlisted candidates will be invited for an interview session in Grenoble, July 09, 2018.

TYPE of CONTRACT: temporary-3 years of doctoral contract

JOB STATUS: Full time

HOURS PER WEEK: 35

OFFER STARTING DATE: September 1st or October 1st, 2018

APPLICATION DEADLINE: June 25, 2018

Salary: between 1768.55 € and 2100 € brut per month (depending on complementary activity or not)