Ethnographic Analysis of Urban Manufacturing Ecosystems

Internship proposition at the ERPI Laboratory 2026 - 2027

Table 1: Overview of the internship at the ERPI Laboratory

Project	**UP3DCYCLING**
Profile	Master's student (M2) in Sociology, Geography, Urban Studies, or Social Sciences, with a specialization or strong interest in the sociology of innovation, environmental sociology, or the sociology of public action. The candidate should demonstrate an interest in circular economy, citizen-led initiatives, Fablabs / third places, and alternative models of production and consumption.
Key commpetences	Qualitative research, literature reviews, documentary analysis, semi-structured interviews, stakeholder mapping and exploratory fieldwork.
Languages	French and English
Salary	Gratification grid for internships at the Université de Lorraine
Tutors	MCF Fabio A. Cruz Sanchez (ERPI) Support from UP3DCYCLING Team
Place	Laboratoire ERPI (Equipe de Recherche sur les Processus Innovatifs) – 8 rue Bastien Lepage, 54000 Nancy, France
Period	Feb/March - August 2027 – 6 months
More Information	fabio.cruz[at]univ-lorraine.fr – (https://up3dcycling.fr/)

1 Context of the Internship

The internship takes place at the Équipe de Recherche sur les Processus Innovatifs – ERPI (https://erpi.univ-lorraine.fr/), research laboratory of the Université de Lorraine. The ERPI is interested is the the development of methodologies, tools and case studies in the area of innovation process management. Particularly, one of its current areas of focus is on urban manufacturing approaches at the UP3DCYCLING project (https://up3dcycling.fr/), where the main goal scope on the intersection of additive manufacturing, circular economy and urban manufacutirng spaces such as Fablabs, Tiers-places and other manufacturing approaches of the social and solidarity economy.

2 Main Issue

Urban manufacturing (Herrmann et al. 2019) is increasingly seen as a pathway to re-localize production through *Do-It-Yourself/Do-It-Together* practices (Dupont et al. 2021) making a cleaner production in some extent. The urban manufacturing responds to major societal trends, including urbanization, resource scarcity, circularity, and demand for personalized production (Sajadieh et al. 2022). However, there is still

limited research on the types of products and systems that are suitable for urban production environments. Integrating recycling and manufacturing within cities has the potential to reduce transportation emissions, support local economies, and foster citizen engagement in sustainability practices.

Therefore, the major question to answer is :

- *What socio-technical reconfigurations does the implementation of distributed recycling/upcycling processes bring about within a given urban territory, and under which social, material and institutional conditions can these processes take hold?*

Rather than treating social and environmental dimensions as side effects of a technical system, the project approaches them as constitutive of it: the collectives, skills, places and local policies through which plastic waste comes to be qualified as a resource are part of what makes distributed recycling possible, or not.

2.1 Objective of the Internship

The internship takes place at an exploratory stage of the project, ahead of the in-depth ethnographic fieldwork in Nancy that will be carried out as part of a PhD (*starting end of 2027*). Its main goals are:

- To map the actors, networks and public action frameworks shaping citizen-led plastic upcycling in urban manufacturing settings, from the Nancy area (local waste governance, metropolitan authority, waste collection, reuse and repair organizations, public support for third places) to regional and national networks.
- To build an analytical framework and a first set of contrasts that will help situate the Nancy case (Green Fablab, Octroi Nancy third place) in the subsequent fieldwork.

3 Methodology

The methodology need to combine theoretical grounding and empirical in-field inquiry. The internship will combine a literature review in political sociology, the sociology of public action and the study of third places in France (Gauthier and Magkou 2025), with a mapping of the actors and institutions involved. The mapping will rely on document analysis (policy documents, local waste plans, network resources) and on exploratory interviews with regional and national networks (e.g., French Network of Fablabs RFFLabs (https://www.rfflabs.fr/), Tiers-Lieux Grand Est (https://tierslieuxgrandest.org/), the Precious Plastic France (https://preciousplastic.fr/) network), as well as with local institutional actors in the Nancy area.

Initial contacts with the Green Fablab (https://lf2l.fr/projects/green-fablab/) and the Octroi Nancy https://www.octroi-nancy.fr/ third place will prepare the in-depth fieldwork, without being the core of the internship. These interviews are not intended to generalize, but to provide points of contrast that will highlight what is specific to the Nancy configuration. Support from the Laboratoire Interdisciplinaire Sciences Innovations Sociétés –LISIS– https://umr-lisis.fr/ will be established to align the expertise on waste sociology, particularly regarding citizen-led initiatives in France. Ethical considerations will be paramount, ensuring informed consent, confidentiality, and respectful engagement with all participants. Then, a mixed qualitative and quantitative approach to analyze urban upcycling systems, using as conceptual framework a Design for Sustainability (DfS) perspective (Ceschin and Gaziulusoy 2019), focusing on its socio-technical implications.

> **Note on scope**
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> This programme should be read as a horizon rather than a fixed set of tasks; its actual scope will be adjusted with the intern according to their profile and the progress of the work.

3.1 Deliverable

1. A mapping report of the actors, networks and public action frameworks relevant to distributed plastic upcycling, from the Nancy area to the national level.
2. A scientific document presenting the analytical framework, the methodology and the first results, as a basis for the PhD fieldwork.
3. Participation on a scientific/practitioner conference is intended. Networks collaboration will be established during the internship.

4 Application and Contact

Send the CV and cover letter to:

- MCF Fabio A. Cruz Sanchez (fabio.cruz[at]univ-lorraine.fr)

References

Ceschin, Fabrizio, and İdil Gaziulusoy. 2019. *Design for Sustainability: A Multi-Level Framework from Products to Socio-Technical Systems*. Routledge. https://doi.org/10.4324/9780429456510.

Dupont, Laurent, Fedoua Kasmi, Joshua M. Pearce, and J. Roland Ortt. 2021. “”Do-It-Together”: Towards the Factories of the Future.” In *Cosmo-Local Reader*, edited by José Maria Ramos, Michel Bauwens, Sharon Ede, and James Gien Wong, vol. 1. Futures Labs.

Gauthier, Cécile, and Matina Magkou. 2025. “Understanding ‘Tiers-Lieux’: Framing and Policy Support of Third Places in France.” *Contemporary Social Science* 0 (0): 1–25. https://doi.org/10.1080/21582041.2025.2585103.

Herrmann, Christoph, Max Juraschek, Sami Kara, and Sebastian Thiede. 2019. “Urban Factories: Identifying Products for Production in Cities.” In *Technologies and Eco-Innovation Towards Sustainability I: Eco Design of Products and Services*, edited by Allen H. Hu, Mitsutaka Matsumoto, Tsai Chi Kuo, and Shana Smith. Springer. https://doi.org/10.1007/978-981-13-1181-9_15.

Sajadieh, Seyed Mohammad Mehdi, Yoo Ho Son, and Sang Do Noh. 2022. “A Conceptual Definition and Future Directions of Urban Smart Factory for Sustainable Manufacturing.” *Sustainability* 14 (3): 1221. https://doi.org/10.3390/su14031221.