



Politecnico
di Torino

Systemic Design & Sustainability Transition.

Co-designing policy interventions
in the Tourism ecosystem.

by
Asja Aulisio

Doctoral Dissertation
Doctoral Program in Management, Production and Design
(37th Cycle)



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*I would like to dedicate the work of this thesis
to the people I have met on the way, who
contribute directly or not to the results.*

Declaration

I hereby declare that, the contents and organization of this dissertation constitute my own original work and does not compromise in any way the rights of third parties, including those relating to the security of personal data.

Asja Aulisio
2024

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Abstract

The research lies at the intersection of Systemic Design and sustainable development on a territorial scale, exploring participatory and co-design dynamics aimed at policy design. Theoretical contributions and practical experiments are especially examined in the Tourism sector. The research path aims to explore how Systemic Design methods and tools can be employed to guide policy interventions, improving the strategic planning of regional policies. Indeed, it also examines how design can be used to manage and co-design with multiple stakeholders to foster territorial development through a participatory approach that aligns with the European Sustainability Transition agenda. The tourism ecosystem serves as a compelling research ground, as it includes complex, multi-layered systems influenced by different socio-economic, cultural, and environmental factors. The literature also highlights the increasing demand for sustainable tourism practices and the research experience on how design methods and tools can contribute to long-term regional development strategies.

The research contributes to the body of knowledge of Systemic Design and Sustainability Transition theories by demonstrating how methodologies from design disciplines can support regional policy frameworks to understand territorial complexity and develop systemic policy interventions. The thesis underscores the importance of activating co-design processes to foster collaboration with local stakeholders in addressing complex challenges, known as “wicked problems”, such as climate change and socioeconomic disparities, ultimately fostering sustainable and equitable tourism strategies within regions with a rural vocation. Moreover, from a disciplinary perspective, methods and tools from two

pioneering schools of Systemic Design in Europe, Politecnico di Torino and the Oslo School of Architecture and Design, were experienced, compared and combined. The aim in this case was to demonstrate how cross-pollination of methods and tools can effectively advance the disciplinary area of Systemic Design for Sustainability Transition in this research. Specifically, the doctoral thesis focused on the importance of understanding the territorial assets and the socio-cultural and economic dynamics, defining a research protocol within a conceptual framework to guide interactions with stakeholders in interpreting the complexity of data and information collected.

The Conceptual Framework, titled “SD4T – Systemic Design for Understanding Territorial Complexity” has been tested and validated by six field experiments within real-world contexts. The six regions identified as case studies cover the entire European panorama, and these are Marshal Office of Świętokrzyskie Voivodeship (Poland), Hajdú-Bihar County Government (Hungary), Molise Region (Italy), Leartibai, Bizkaia Region, (Spain), Nouvelle-Aquitaine Regional Council (France) and Central Ostrobothnia Regional Council (Finland).

The experiments conducted, both in the academic contexts and in real-world settings, highlighted data collection limitations and opportunities of the Conceptual Framework and the participatory processes it entails. In particular, data analysis and presentation through visual artefacts, known as Complexity Maps, serve as a sense-making tool to discuss with actors within the territorial ecosystems. So, the Complexity Maps, as the result of the SD4T framework, enable transdisciplinary collaboration to develop complex territorial information systems. They can be a use-

ful tool to work on triggering the process of increasing accessibility of data for designing initiatives that promote effective Sustainability Transition in a holistic and integrated manner. In the end, the thesis opens up future research trajectories by discussing the possibility of defining a preliminary assessment model for stakeholders’ evaluation to facilitate participatory work dynamics tailored to the needs and backgrounds of those potential actors involved.

Graphical Abstract
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