

Brief description of the PLOTTI project

The project aims to identify place leaders of twin transition (TT) in local production systems (LPS) specialised in manufacturing industries. TT has been identified by policy makers and scholars as the digital and green transition of our economy where investments and learning activities relate to digital technologies enabling the reduction of negative environmental externalities.

Digital technologies are an opportunity for manufacturing firms and value chains allowing to increase efficiency and reduce the harmful impact of economic activities on the physical environment. An effective transition towards a greener and digital economic system should not neglect the population of small and medium sized enterprises (SMEs) and the LPSs where these firms are generally embedded. SMEs are still lacking behind in terms of technology adoption and exploitation of sustainability related benefits. SME's barriers in the adoption of digital technologies and in the exploitation of their environmental benefits depends on several factors at both a firm and systemic level (e.g., uncertainty regarding the value of digital technology, and the integration of digital tools into the industrial organization). Traditionally, these barriers have been locally reduced through place specific mechanisms fostering knowledge sharing, collective learning, imitation and technology diffusion. One possible means to positively react to disruptive and global challenges relies on the presence of a set of local actors, such as local or localized policy-makers, business leaders and trade unions' chiefs, scientists and higher education actors, socio-cultural activists, expressing a place leadership (PL).

However, how PL supports TT in LPS and what are the main features of TT PL is not clear.

The project will explore: 1) how PL emerges during the contemporary change of paradigm where digitalization and green combine in the value creation processes; 2) how PL is characterized by looking at both economic and non-economic actors; 3) how to measure LPS TT performance and detect potential embedded economic TT PL; 4) how PL works in fostering TT at a LPS level.

The methodology entails a preliminary phase where the exploitation of a variety of databases enables the generation of a multilevel dataset identifying TT PL in the Italian economic landscape and the levels of digital adoption and green attention of each LPS. After the generation of the dataset, the project will develop in-depth case studies consistently with the variety of LPS TT performance.

Research findings will support policy actions related to TT by offering a systemic view of the digital and green transition of manufacturing and their value chains. The project outcomes will open opportunities for long-term exploration of TT and contribute to theory on local development by paving the way for the exploration of network externalities for circular economy, hybridization of value chains and spatial effects of TT.