

ABSTRACT

Digitisation - especially as precision agriculture, e-commerce and smart farming - is seen as a core innovative solution for agri-food systems. Its aim is to promote the transition to agriculture 4.0. The Italian PNRR fully embraces this definition, placing agriculture 4.0 as a key component of Mission 2 “Green Revolution and Ecological Transition”. Accordingly, the transition to an economy 4.0 is seen as an opportunity for agrifood systems to undertake effective and efficient transformation that increases productivity while fostering sustainability and food security. These objectives are even more crucial in the context of multiple global crises, from the 2008 food and financial crisis to the COVID-19 pandemic and the more recent Ukrainian war. Faced with such critical challenges, policies have oriented towards a triple-win vision, whereby the development of agricultural systems drives an integrally beneficial transition: for climate, for food security, and for social wellbeing. The digitalisation of agriculture can be described as a further step in the incorporation of technology within agrifood systems. Yet, this process is not limited to the introduction of technological artefacts; it also consists of a set of practices through which new actors come into play, new interactions are established, and new arrangements arise - transforming the social and ecological structure of agri-food production. Research is needed to better understand how the relationship among production, innovation and territories influences the many variables of food sustainability. This project aims to examine the growing entanglements between the digital economy and the Italian agrifood system. It pays particular attention to the transformations in the organisation of labour and to the dynamics through which different types of innovation affect the agrifood chain: from inputs selection to harvesting, to logistics and distribution. More solid knowledge should strengthen public decision-making by interconnecting different levels and types of insight into the impacts and possible trade-offs of the digitalisation processes. More solid knowledge is equally necessary to link such processes to the perspective of Just Transition (JT), whose adoption is rapidly spreading world-wide.

Thus, the project builds on the assumption that agrifood offers a vantage point to understand the role of the digital economy in sustainable socio-economic transition processes, and related hurdles and opportunities. Theoretically, it draws on multiple literatures: a) JT, climate justice and environmental labour studies; b) rural sociology and agrarian studies; c) sociology of innovation and sustainable transition science. Methodologically, it combines different qualitative approaches: secondary analysis of media and grey literature; policy and dataset analysis; stakeholder analysis; in-depth case histories, applying sectoral knowledge systems mapping, interviews, and participant observation.

ACTIVITIES

Research will be carried out in Emilia-Romagna, by means of: 1) semi-structured interviews with a variety of stakeholders; 2) careful analysis of scientific as well as grey literature; 3) analysis of existing policies linked to JT, at different levels of governance.