

**LOCAL VALUE AND THE ENERGY TRANSITION: THE ROLE OF BIOMETHANE: A CASE STUDY  
FROM THE E.INS SARDINIA PROJECT**  
Giacomo Di Foggia, Massimo Beccarello

Department of Business and Law, University of Milano-Bicocca

**Abstract**

The study analyses the short-term socio-economic impacts of the development of the biomethane supply chain. Starting from the region's technical potential, development scenarios are constructed to estimate the effects on employment, the activation of local supply chains, and direct and indirect economic impacts. Insights are obtained through a qualitative methodology involving focus groups with experts. The analysis highlights a short supply chain structure, with an average supply radius of between 15 and 30 km, strongly integrated with the agricultural sector and characterised by a high capacity to retain value at a local level. The employment impacts are distributed throughout the value chain – from the harvesting and transport of biomass, to the management and maintenance of plants, through to upgrading activities and technical and administrative services – with significant indirect effects on agriculture, logistics and professional services. Biomethane is as a concrete lever for the decarbonisation of energy use, promoting the replacement of fossil gas in manufacturing sectors and generating synergies with the circular economy and waste management. The overall cost-benefit assessment at the local level is positive, albeit with challenges related to the complexity of the authorisation process, investment costs and social acceptability. This study contributes to the debate on energy transition policies, highlighting how biomethane, in addition to reducing emissions, can serve as a regional industrial infrastructure capable of strengthening local competitiveness and socio-economic resilience.