

# GABRIELE MAURO

## **THE NEW POWER COUPLE: ARTIFICIAL INTELLIGENCE CAPABILITIES IN RENEWABLE ENERGY NETWORKS**

Achieving net-zero is a challenging goal of our time, requiring renewable energy (RE) to be integrated on a large scale in energy supply chains. This necessitates competences, known as dynamic capabilities. A promising technology for RE integration is AI. Yet, the literature on AI-RE supply chains (RESC) is still in its infancy. A multiple case study examines how AI impacts RESC, identifying the AI-driven dynamic capabilities for effective RE integration. We examine which capabilities to develop when RESC is implemented through AI. Supply chain predictability and optimization (sensing and seizing capabilities) are core benefits which need development in AI-driven RESCs. This project was supported by the FARI - AI for the Common Good Institute (ULB-VUB), financed by the European Union, with the support of the Brussels Capital Region (Innoviris and Paradigm).