The Challenge of Digital Manufacturing for Peripheral Regions

DIGITAL MANUFACTURING AND NEW INNOVATION PROCESSES

A Wise4All Seminar

Lidia Greco

Department of Political Sciences, University of Bari (Italy)

lidia.greco@uniba.it

The Current Debate on Industry 4.0 and Digitalization

- Greater efficiency and productivity
- Greater added value
- More highly qualified jobs and skills requirement
- Faster production processes (i.e. reduced time to market)
- Greater customers' involvement and satisfaction

Digital manufacturing poses a number of challenges:

- Firms' organization and business model [i.e. greater integration between internal and external functions (production and supply chain, post production services and processes)]

- Labour composition (i.e. more qualified workers, STEM knowledge, skills, flexibility)

- Employment relations (i.e. more flexible and individualised)

At the same time some concerns:

- Possible devaluation of certain skills (i.e. interactive)→ women
- Co-existence of low paid jobs (i.e. on platforms), low salaries and quality
- Job losses
- Path-dependency tendencies (i.e. low technology trajectory)

Possible benefits of digital manufacturing for peripheral regions

- Enhancement of economic performances for single firms and for their value chain

- From a socio-economic perspective (consider for instance '*makers*'):

(a) Valorization of traditional knowledge and 'savoir faire'

(b) Enhancement of 'glocal' networks and connections

Policy Focus

- Crucial role of the EU:

- its own strategy (Digital Single Market, Smart Specialization, Structural Funds, EU 2020 Agenda, etc. and their convergence) concerning Industry and Public Services

- as a supportive actor for national and regional policies

Digital Manufacturing : some Research issues

- Institutional conditions that favour the spread of digitalization (i.e. regional agencies, incubators, hubs, private-public partnerships, sectoral organizations, R&S) but also socio-economic dimensions (i.e. skills, training, high speed connections)

- Spatial differentiation of digitalization (i.e. the spatial impact of technologies) and evaluation metrics

- Conditions and mechanisms that allow digitalization to have a positive impact in economic (i.e. efficiecy) and social terms (i.e. social inclusion, more and better jobs, adequate skills and greater competences, ICT and creativity)