



**UNIVERSITÀ  
DEGLI STUDI  
DI BERGAMO**

Dipartimento  
di Scienze Economiche

## **ENEF2020**

**17th European Network on the Economics of the Firm (ENEF)  
Workshop on**

# **“Innovation and Firms within the New Industrial Paradigm of the Digital Transformation”**

**January 21-22, 2021**

**Department of Economics, University of Bergamo, Bergamo**

While the dramatic shock brought about by the Covid19 is currently attracting academic scholars and policymakers, the topical issues and mega-trends that were boiling down before its arrival keep on unfolding and still require great attention, though in a transformed scenario. Among these, the unceasing introduction of innovations continues to be the major cause of structural and organizational change of socio-economic systems. In particular, radically new technologies have the disruptive power to open brand new scenarios of economic development. After a new innovative wave shatters a system, a new productive paradigm emerges, along with winners and losers. The last technological wave hitting developed and, though to a different extent, developing and less developed countries, is the so-called “Industry 4.0”.

The diffusion of new technologies such as robotics, artificial intelligence, machine learning, blockchain, additive manufacturing and internet of things is having a massive impact on the organization of production. Unlike in previous industrial revolutions, automation extends to cognitive and mental tasks, which redefines the balance between job-destruction and job-creation and the skill-bias of automation. The widespread availability of data and the exponentially increasing power and the decreasing cost of processing them are radically redefining the nature of the informational problems in organizations and firms in particular.

New technologies such as machine learning, AI and data analytics are not only likely to produce a major impact on labour demand and markets. They also heavily affect how firms make decisions, how they are organized, how they innovate and urge us to rethink our theoretical constructs about innovation and the firm in the new industrial paradigm. Can existing theories explain organizational phenomena also in an age of extremely cheap information?

By contributing to increasing our still scarce knowledge of the previously delineated set of research issues and other related ones, the ENEF2020 workshop focuses on theoretical, empirical and policy analyses of its main theme: “Innovation and Firms within the New Industrial Paradigm of the Digital Transformation”.



## Instructions

### Instructions to participate:

The Workshop will take place on the Microsoft Teams conference platform. Prospected participants are asked to confirm their participation to the workshop, by writing an email of **registration** indicating their corresponding **email address**, *the one they use to access their Teams account*, in case they have one. Registrations must be sent no later than **January 18**, to the following email address: [17enef@gmail.com](mailto:17enef@gmail.com). We would like to remind that the registration is completely **free**.

Each indicated participant will receive the invitation to join the **virtual room** with an individual email in the following days.

During presentations, participants are asked to mute their microphones when not speaking. Moreover, we encourage to use the **chat** during presentations: one of the organizers will take care of managing questions and comments.

During **lunch and break times**, the virtual rooms will remain open in order to offer the chance of a free and informal environment for interactions among participants.

### Instructions for presentation and discussion:

Each presenter will have 20 (at maximum) minutes available to present her/his paper, followed by 5 minutes of discussion and other 5 minutes for questions and replies.

Each presenter is asked to discuss the following paper in the program, and the first paper will be discussed by the last presenter.

## Organizers

### Scientific committee:

Elena Cefis (University of Bergamo, Bergamo, Italy), Albert Jolink (SKEMA Business School, Paris, France), Jackie Kraft (Université Côte d'Azur, CNRS-GREDEG, Nice, France), Sandro Montesor (Gran Sasso Science Institute - GSSI, L'Aquila, Italy), Eva Niesten (SKEMA Business School, Paris, France)

### Organizing committee:

Cristina Bettinelli (University of Bergamo, Bergamo, Italy), Elena Cefis (University of Bergamo, Bergamo, Italy), Riccardo Leoncini (University of Bologna, Bologna, Italy), Luigi Marengo (LUISS, Rome, Italy), Matteo Tubiana (University of Bergamo, Bergamo, Italy).



## Program

### Thursday, 21<sup>st</sup> of January

- 09.15 – 09.40: Institutional greetings:  
Remo Morzenti Pellegrini, Rector of the University of Bergamo  
Gianmaria Martini, Head of the Dep. of Economics, Univ. of Bergamo
- 09.40 – 10.00: Opening address: “Carrying on with ENEF, in the loving memory of Michael Dietrich”
- 10.00 – 11.00: **Keynote #1: Silvia Massini** (Alliance Manchester Business School and Manchester Institute of Innovation Research, The University of Manchester, Manchester):  
*Digital technologies, Innovation and Skills*  
Chairperson and discussant: Elena Cefis
- 11.00 – 11.15: Break
- 11.15 – 12.45: **Session #1 on Employment**  
Chairperson: Cristina Bettinelli
- Antonietti R., Cattani L., Gambarotto F., Pedrini G.: *The effect of advanced manufacturing technologies on tasks and skills in Emilia-Romagna*
  - Cimiterra M., Kraft J., Nesta L.: *Blockchain as Schumpeter Mark 1 or Mark 2? An empirical analysis of blockchain job offers in France and Germany*
  - Montobbio F., Staccioli J., Virgillito M., Vivarelli M.: *Labour-saving technologies and occupational exposure*
- 12.45 – 13.30: Lunch
- 13.30 – 15.30: **Session #2 on Innovation**  
Chairperson: Francesco Quatraro
- Andersson M., Kusetogullari A., Wernberg J.: *Who is going soft? Software development in Swedish firms*
  - Ali H.: *The role of firm innovativeness during and after Covid-19 crisis: Evidence from Chinese manufacturing firms*
  - Cirillo V., Fanti L., Mina A., Ricci A.: *Digital technologies and firm performance: Industry 4.0 in the Italian economy*
  - Argentiero A., Ferrara M., Leoncini R., Pedrini G., Scuderi R.: *Does tax evasion affect innovation decisions? The case of Industry 4.0 in Italy*



15.30 – 15.45: Break

15.45 – 16.45: **Keynote #2: Aijia Leiponen** (Charles H. Dyson School of Applied Economics and Management, Cornell University, Ithaca, NY):  
*Discovering firms' data strategies: A topic modeling approach*  
Chairperson and discussant: Luigi Marengo

16.45 – 17.00: Break

17.00 – 18.30: **Session #3 on Employment**  
Chairperson: Sandro Montresor

- Sánchez Barrioluengo M.: *Job composition and digital technologies: its effect on UK firms in the digital era*
- Domini G., Grazzi M., Moschella D., Treibich T.: *For whom the bell tolls: the effects of automation on wage and gender inequality within firms*
- Sbardella A., Napolitano L., Pugliese E.: *The complex co-evolution of local innovation systems and local labour markets*



## Friday, 22<sup>nd</sup> of January

9.30 – 10.30: **Keynote #3: Daniela Andreini** (Department of Management, University of Bergamo):

*Digital Business Model Innovation: A Review Of The Process-Based Literature And Directions For Future Research*

Chairperson and discussant: Riccardo Leoncini

10.30 – 10.45: Break

10.45 – 12.45: **Session #4 on Innovation**

Chairperson: Luigi Marengo

- Antonioli D., Marzucchi A., Rentocchini F.: *The curse of automation. What is the effect of robots on innovation?*
- Pini M.: *Family or non-family managers in the Fourth Industrial Revolution? How family firms face business models 4.0 via R&D and the supporting role of institutions. Empirical evidences from Italy*
- Marty F., Warin T.: *Identifying Damages to Innovation in Digital Ecosystems*
- Franco C., Landini F.: *Workforce Agility and Firm Innovation*

12.45 – 13.30: Lunch

13.30 – 15.30: **Session # 5 on Structural and organisational change**

Chairperson: Elena Cefis

- Lombardi M., Vannuccini S.: *A paradigm shift for decision-making in an era of deep and extended changes*
- Bruno R., Osaulenko K., Radosevic S.: *Digitalisation, structural transformation, and technology upgrading*
- Aralica Z., Škrinjarić B.: *Structural change effects on industrial dynamics in the Industry 4.0 transformation: case of Croatia*
- Garbin V., Nucciarelli A., Santini E.: *Servitization trajectories through the construction of ecosystems*

15.30 – 15.45: Break



15.45 – 17.45: **Session #6 on Technology**

Chairperson: Matteo Tubiana

- Bianchini S., Damioli G., Ghisetti C.: *Do the two make a pair? Digital and green transition in European regions and their impact on greenhouse gas emissions*
- Barbieri N., Marzucchi A., Rizzo U.: *Green or non-green: is that really the question? The role of non-green technologies for the development of green inventions*
- Martinelli A., Mazzei J., Moschella D.: *Patent opposition and technology entry*
- Cozza C., Gandin I., Montresor S., Palma A.: *With no siblings, but with home”: single patent-class inventions (SPIs) and regional technological diversification in Europe*

17.45 – 18.00: **Closing remarks**