ENEF2020
17th European Network on the Economics of the Firm (ENEF) Workshop:

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

University of Bergamo
Dept. of Management, Economics and Quantitative Science

January 21 - 22, 2021

Dear Friends, we are pleased to inform you that the deadline for abstracts’ submission has been extended. The new submission deadline is

31st October 2020

Following previous ENEF meetings organized in Sheffield, Rotterdam, Nice-Sophia Antipolis, Cambridge, Paris, Amsterdam, Strasbourg, Bologna, Madrid, Manchester, Toulouse, Turin, Pisa, Brighton, and Vienna, we are pleased to announce that the 17th ENEF meeting will be held in Bergamo (Italy) at the Department of Business, Economics and Quantitative Methods.

Due to the burst of the Covid19 pandemic, and to entailed necessity to guarantee a safe interactive meeting in presence, the ENEF2020 Workshop has been postponed to January 2021, leaving sufficient margin to organize the 18th Workshop on September 2021, following the usual ENEF schedule. Following the regulations that the University of Bergamo has set for the organization of workshops and conferences in times of Covid19, and unless further procedures are set in the next future, the 17th ENEF meeting will take place in a dual manner. Presenters of the selected papers, in a number that complies with the above regulations, will be hosted in presence, unless coming from countries with mobility restrictions with respect to Italy. Interested attendees will also be hosted in presence until the maximum number of participants has been reached, following their registration order. All the other attendees and presenters with mobility issues will be capable to participate to the meeting in a virtual way, using the zoom platform.

Call for Papers

While the dramatic shock brought about by the Covid19 is currently attracting the attention of academic scholars and policy makers, the topical issues and mega-trends that were boiling down before of 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. The faster the pace of introductions, the higher is the
stress for markets, firms and institutions to change and adapt their businesses, from production to organization and value sharing. 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 and through different channels, developing and less developed countries nowadays 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. Flexible, adaptive and learning machines constitute a major technological breakthrough if compared to previous mechanization waves where only simple routine tasks could be automated. Unlike in previous industrial revolutions, automation extends to cognitive and mental tasks, and this redefines the balance between job-destruction and job-creation, as well as the skill-bias of automation that can be expected from the present one. What is more, the widespread availability of data and especially 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, data analytics are not only likely to produce a major impact on labour demand and labour markets, but are also heavily affecting how firms take decisions, how they are organized, how they innovate, urging us to rethink of our theoretical constructs about innovation and firm in the new industrial paradigm. Our theories of organization are based on informational asymmetries, bounded rationality, limited span of control, and the like. But new technologies are likely to cause a radical reduction or at least a major modification of such informational problems. Can existing theories explain organizational phenomena also in an age of extremely cheap information?

As a first example, take for instance the impact that new technologies are likely to have on the pillars of transaction costs economics: flexible and intelligent robots are capital goods characterized by low and decreasing levels of asset specificity; machine learning and data analytics are pushing the bounds of rationality further and further away; blockchain is reducing the scope for post-contractual opportunism. Transaction costs theory would predict therefore that we should observe a wave of vertical disintegration as these new technologies diffuse. But the question is open on whether we will rather observe new organizational forms and new forms of integration along dimensions which are different from those analysed by transaction costs theory.

A second example one could take is agency theory. In a world in which greater and greater parts of an organization’s activities are carried out by machines instead of humans, we should expect that the agency problem should vanish. Machines do not need incentives to act in the organization’s interest, they can be simply programmed to do that. But, perhaps, intelligent, learning machines may develop novel courses of action that were not explicitly programmed. Thus, new forms of ex-post information asymmetries and agency problems may arise.

Third, one can consider behavioural and evolutionary theories of organization. Routines, rules and standard operating procedures are at the core of such theories, but we can imagine that flexible robots, learning machines and AI are more and more able to perform non-routine tasks and substitute humans in jobs with high cognitive content. Are routines still equally important? And what are the issues involved in the coordination between humans and intelligent machines?

The previous examples, along with possibly other, suggest that the new industrial paradigm associated to the 4th Industrial revolution is also affecting the fundamental issues that, almost one century ago already, Ronald Coase posed at the centre of the “nature of the firm”, calling for a different economics of the firm than that consolidated by addressing these issues with conventional premises and hypotheses. Furthermore, the new paradigm calls for a new set of conditions for firms to survive, compete and succeed, calling for a similar rethinking of our common approach to industrial organisation and dynamics. One crucial aspect involves the competences required to workers for being able to extract fully the value out of the
technological investment. Since competences and jobs, are complementary, introducing a new one – by training or hiring – brings in a set of workers, jobs and tasks new to the company. This dynamic process affects the width and quality of the firm’s knowledge base, hence its absorptive capacity and its ability to generate new, innovative knowledge. Not only the composition, but also the organization of the knowledge base – the way knowledge workers (are) organise(d), interact, exchange information within and outside the firm – changes. The availability of knowledge resources and the organization of knowledge production are two key ingredients commanding the nature of creative reaction: whether firms will perish, adopt new technologies and/or react creatively.

With the aim of contributing to increase our still scarce knowledge of the previously delineated set of research issues, and to other related ones, the next ENEF-2020 workshop will focus on theoretical, empirical and policy analyses of its main theme: “Innovation and Firms within the New Industrial Paradigm”. In particular, the workshop is open to contributions that address the following non-exhaustive list of research questions:

Is the characterisation of the new industrial paradigm still open? Which theoretical and empirical analyses are still needed to increase its understanding, if any?

How are the boundaries and the organisation of the firm changing within the new industrial paradigm?

How is the new paradigm affecting the technological regimes within which firms compete and innovate?

How does structural change intertwine with industrial dynamics in the new paradigm?

How do firms cope with the complexity of the new paradigm? Which, if one, is the main target of their investments? How do they balance static with dynamic efficiency?

Is Industry 4.0 a top strategic objective for firms’ organisation? Is Industry 4.0 shaping firms’ strategies?

How is the digital transformation visible in the drivers for investments? How is it visible in their policy towards employees, suppliers and customers?

How do firms deploy their dynamic capabilities to cope with these transformations?

How will supply chain be, if they are, reengineered?

Has the innovation process at the level of the firms been affected by the emergence of the new industrial paradigm? Are inventions and innovations more easily achieved?

Have the new technologies changed the organisation of the innovation processes inside the firms? What are the new sources of innovation?

How will I 4.0 impact competitiveness, growth and inequality?

How is the Covid19 affecting the previous research questions?

This year meeting will be the first organized since the ENEF founder, mentor, scientific coordinator and good friend, Professor Michael Dietrich, sadly passed away. We are organising this Workshop knowing that the creature that Mike has conceived and so forcefully developed will survive him and will grow even stronger in his name. It is our aim to keep on the spirit and the format that Mike always passionately devised.
and popularized since the first edition of the meeting up to the last 15th edition. The theme of this edition reflects, on the one side, one of the ENEF core themes and, on the other side, ENEF constant attention to the evolution of the economic scenario and of its theoretical and empirical implications.

**The ENEF workshop and the Special Issue of *Industry & Innovation***

A selection of the best papers of the 17th ENEF Workshop will be considered for a special issue of *Industry & Innovation* on "Innovation and Firms within the New Industrial Paradigm of the Digital Transformation" (Guest Editors: Elena Cefis, Riccardo Leoncini, Luigi Marengo, Sandro Montresor), whose proposal has been already accepted by the Editor in Chief. These papers will be subject to the normal peer review of the Journal. The on-line first version of the SI is expected for the beginning of 2022 (https://www.tandfonline.com/loi/ciai20).

Authors of accepted ENEF papers will need to decide, soon after the conference registration, and before of the announced deadline, if they want their paper to be considered for the special issue. Once revised their papers according to comments and suggestions received during the conference, interested authors will have to accomplish the submission two months after the conference takes place, that is, by March 30th, 2021.

**Important dates:**

1. Extended abstracts (between 2-3 pages) or **paper submission: 31.10.2020.** Please submit to 17enef@gmail.com. Submitted papers are expected to be work in progress and should not have yet been submitted for publication.
2. Notification of **acceptance** by **10.11.2020**.
3. **Registration** deadline: **10.12.2020**
4. **Final papers** to be delivered by **11.01.2021**.
5. **Workshop dates:** **21.01.2021** (starting at h.9.30) and **22.01.2021** (ending at h.16.00)

**Keynote speakers:**

2. **Daniela Andreini**, University of Bergamo, Bergamo, Italy
3. Silvia Massini, Alliance Manchester Business School, Manchester, U.K.

**Registration fees:**

Registration fee is €100,00 for those who present a paper in presence, €50,00 for those who present and attend on-line, and €70 for those who wish to attend in presence without presenting a paper.

**Scientific Committee:**

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

Organising Committee:

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Riccardo Leoncini, University of Bologna, Bologna, Italy
Luigi Marengo, LUISS, Rome, Italy
Matteo Tubiana, University of Bergamo, Bergamo, Italy

For more information about the 17th ENEF meeting, the submission process and practical details please write at 17enef@gmail.com