

Smart production and Industrial relations

*Ires Lucia Morosini, a cura di
Francesco Montemurro*

Turin, 18 aprile 2016

In the last years Europe and Italy have seen the birth of a group of medium and large successful businesses (fourth capitalism), that, through the so-called "smart" production systems, have achieved success on world markets even standing up to the recent economic crisis.

Robotics, new materials and advanced devices, virtual prototyping and, generally, applications of digital technologies to manufacturing, are emerging in the production systems of these companies.

What is the impact of the smart production on work organization and on the quantitative and qualitative aspects of employment?

Of course, the application of digital technologies has required and requires radical changes in the productive and organizational methods.

Not only robotics.

Developing human and organizational capital, minimizing the environmental impact, using renewable resources, increasing efficiency and flexibility of machineries: these are what characterizes this new phase of the manufacturing system.

The project will consist of three main phases: **research, exchange of experiences, development of general guidelines and training for the social partners.**

The project will include:

a phase of study on the new modes of production (smart production) and in general on the processes of change (anticipation, preparation and management), and promoting the realization of measures (elaboration of operational guidelines for industrial relations, training for the social partners) to develop an appropriate capacity building of the social partners.

In particular, the project aims to facilitate the adaptation of industrial relations systems to the changes in the world of work, in line with the Europe 2020 strategy (a strategy for a smart, sustainable and inclusive growth) and with the recent politic orientations manifested by the EU Commission (growth, equity and democratic change). In this context, consistent with the requirements of the Call, **our proposal is geared to contribute to the construction of new systems for the industrial relations.**

Desk analysis

First a desk analysis will be prepared to study at a European level the smart production in the manufacturing sectors, with particular emphasis on the **mechanical, the automotive and the chemical** one.

The Research Institute of Portugal Socius will conduct an analysis on the smart production in Portugal, Spain, Austria and Germany; The Institute for Employment Studies in London (England) will take care of the smart manufacture in Western Europe (Belgium, France, Scandinavian Countries, UK); The Institute for Social and Trade Union Research (ISTUR) will study at a national level

Ires Lucia Morosini will study at a national level; the Polish National Union (Federacja Związków Zawodowych Miałowcy) will conduct, through its research department, a survey on the national smart production, with particular reference to the experience achieved in the field of Fca Tychy.

Desk analysis focus

a) business strategies related to work organization, safety, protection of rights, human resources, constant training, forms of contract, workers' participation in the production process, wages and forms of incentives; b) experienced and consolidated models of industrial relations; c) the context (institutional and of adjustment, socio-economic and territorial) that can support the development of the smart production.

Regarding the quality of employment, according to some recent studies in Europe two models of work organization are emerging. "collaborative manufacturing": in some companies workers take part in the solution of problems, facing and resolving the unexpected, and in return receive a cooperative atmosphere, training, opportunities for a career advancement and an increase of their employability.

Opposed to this model is that of the "constructive manufacturing", a way of production based on the "disposable work", low-skilled competences, precarious forms of work, little opportunity for workers to train.

There is the need for a better understanding of the phenomena mentioned above and the consequent development of new patterns of reading and industrial relations models. How can the social partners improve industrial relations for the management of these processes?

In Europe, some studies count about 100,000 companies that refer to the production (or fourth capitalism); in Italy we can talk about 4,000 or 5,000 companies, rooted almost entirely in the north and in the center of the country. They are specialized in the typical fields of Made in Italy. In Eastern Europe, as well as in Portugal, these phenomena are linked mainly to the relocation processes launched in recent years by the large multinational companies operating in the industry. Anyway, this is a growing phenomenon both in Italy and in Europe, a result that must be related also to the results of the processes of corporate restructuring that have started during the crisis.

Facing the advance of technology, which typically involves a less intensive use of labor force, work organization and the participation of the worker to production are undergoing a major conversion (amount of employment, types of contract, protection, incentives and rewards, active involvement of the worker in the production process, training, satisfaction), still not fully understood.

The second study

Industrial relations are particularly concerned by the emergence of new modes of production. Facing the advance of technology, which typically involves a less intensive use of labor force, work organization and the participation of the worker to production are undergoing a major conversion (amount of employment, types of contract, protection, incentives and rewards, active involvement of the worker in the production process, training, satisfaction), still not fully understood.

The second study: semi-structured questionnaire (including 40 representatives of employers' associations and leading companies, 40 trade unionists and 20 witnesses, among which experts and public administrators), to investigate the more qualitative aspects of the smart factory, identify good practices, acquiring suggestions to improve industrial relations.

Ires Lucia Morosini: set the questionnaire in cooperation with other research institutes and partners; administer questionnaires to the stakeholders sample; elaborate statistical data and prepare commentary. Stakeholders will be selected within the first two months of the project, based on the criteria identified during the meeting in Turin.

The project will consist of three main phases: **research, exchange of experiences, development of general guidelines and training for the social partners.**

However, it is expected that 50% of the stakeholders to be interviewed resides in the partner countries of the project while the other half is in other European countries, particularly in Northern Europe, France and Germany (where the processes of industrial production appear more intense). The Ires Morosini will also cure the qualitative study on the experience of the production Pirelli and Sorin in Italy, which operates in the field of medical equipment.

In this phase, on the 20th and 21st of June 2016, a workshop will be made in Barcelona, in order to make a first interim evaluation, gain new perspectives through the sharing of experiences, harmonize methods and analysis techniques.

On this occasion, Ires Morosini will administer to all partners a short questionnaire to assess the progress of research activities also in order to possibly reschedule the works.