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A spotlight on remote work and digital skills: preliminary findings from the IRESDES4.0 project

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On the 26th of November 2021, the preliminary findings of the **European funded project "Industrial relations and Social dialogue for an economy and a society 4.0" (IRESDES4.0)** were presented in the context of the **ADAPT International Conference - XI edition**.
The mentioned project, which started in March 2021 and will be further implemented until March 2023, **aims to enhance social dialogue and quality of employment in a digitalized labour market, by guiding social partners and other relevant stakeholders towards a better understanding of digital transformation implications on collective labour agreements**.

The consortium involved in the project, led by Confimi Industria (supported by its affiliates Confimi Industria Digitale and Confimi Servizi), involves ADAPT, the European DIGITAL SME Alliance and FIM-CISL Veneto (supported by its affiliate national FIM-CISL). IndustriALL Europe participates as an associated organisation.

The two main topics prior to the IRESDES4.0 project are **remote work and digital skills development in workplaces**, and the main area of interest are **small and medium enterprises (SMEs) of the Italian digital and metallurgy sector.** During the first phase of the project, the mentioned themes were primarily investigated through the means of a **desk research (encompassing the review of international scientific literature and CLAs) but also through a series of semi-structured interviews to trade union members and employers' representatives.**

The changes taking place in the world of work as a result of the IV Industrial Revolution have been long pointed out by international bodies and research centres. **Many scholars, especially in the economic field, have stressed that megatrends contributing to these developments include demography, globalization, technology and new production process**. **As for demographic changes, it has been frequently argued that the ageing of the population gives rise to direct and indirect effects on the labour market and people's skills**. Before addressing the issue of skills (and especially digital ones), it is appropriate to provide a brief overview of demographic trends in Europe. The data below is based on the latest Ageing Report (2021) issued by the European Commission.

Eurostat's demographic projections show continued increases in life expectancy both at birth and at

the age of 65 for both males and females over the period 2019-2070. In addition, the EU population is projected to decline from 447 million people in 2019 to 424 million in 2070. During this period, Member States' population will age dramatically given the dynamics in fertility, life expectancy and migration. **With specific reference to labour market dynamics, it is worth mentioning that in the EU, the participation rate of those aged 20-64 is projected to increase from 78.2% in 2019 to 80.7% in 2070, driven mainly by a higher participation of women and older workers. While the projections indicate an increase in participation rates for all ages, it is particularly visible for those aged 55-64 (+9.6 pps.) and reflects the effect of pension reforms. The size of the EU labour supply is expected to decrease by 16% over the projection horizon, with the largest decline of labour supply for males.**

Direct effects of demographic changes translate into an overhauling of social security systems, the sustainability of which depends on workers staying longer in employment. **Indirect effects refer to the different skills needed by the workforce as a consequence of demographic changes**. Since, as demonstrated by the data referred to in the previous paragraph, the working age of the population is likely to rise, the skills of those who received training long time ago may not be suitable to keep up with the fast-changing economic context. Other scholars have argued for an inverse relationship existing between demographic changes and the 'automatability' risk. Unlike what stated by most research, they have posited that the risk of automation does not increase with age, nor does it involve only senior workers, those possessing outdated skills and those who are "*less likely to participate in lifelong learning*".

Besides demographic changes, **technological progress is another relevant aspect, as it impacts the world of work, particularly skills needs**.

In this regard, the research highlighted a **large gap in the use of digital technology currently present between large enterprises and SMEs,** which, according to the Digital Economy and Society Index (DESI), published by the European Commission in 2021 **interests both complex technologies and basic digital solution**s. Moreover, according to the DESI Index, **4 out of 10 adults and every third person who works in Europe lack basic digital skills**. **Considering the source just mentioned but doing an in-depth analysis on Italy it is worth highlighting how 41.5% of people in Italy have at least basic digital skills and that 3.6% of employees in Italy are digital experts but 55% of companies that hired or tried to hire digital experts report difficulties in filling these vacancies**. **In 2020, 19% of EU enterprises employed ICT specialists**. Among the EU Member States, Ireland and Belgium presented the highest proportion of enterprises employing ICT specialists, with 30% each. **Italy, with 13%, presented the lowest ratio of enterprises employing ICT specialists in 2020**. Enterprises are providing more and more training to their personnel to develop or upgrade their ICT skills. Overall 20% of the EU enterprises provided ICT training for their personnel: Italy is in sixth from last position with respect to this indicator (with a percentage just over 15%). When looking at company size, 68% of large enterprises actively provided the training, while only 18% of SMEs did so.

An analysis of international scientific reports shows how the **reasons behind this imbalances are to be identified in the elevated cost of digital technology, the firms' uncertainties about data security,** *(Directorate-General for Research and Innovation of the European Commission, Capitalising on the benefits of Research & Innovation Projects for Policy: The 4th Industrial Revolution, 2018)* **but also in the absence of risk orientation by the management, the low**

awareness of the benefits of digital technologies or the lack of "self-efficacy" i.e. confidence of the SME owner and staff to use them productively (P. Gubitta, D. Nicolai, *L'innovazione nelle imprese: considerazioni generali e risultati di un'indagine nelle piccole imprese, Microimpresa, 2013, pp. 79-80, A. Bruzzo, Per la trasformazione digitale delle Micro-PMI in Italia, Quaderni di ricerca sull'artigianato, 2020, p. 337*). However, the report mostly focuses on a particular factor hindering the use of digital technology in smaller enterprises, that is, **the low level of digital literacy among owners, managers and workers of SMEs,** which could have negative effects in their economic performance in the long run (*P. Gubitta, D. Nicolai, op. cit, pp. 79-80, A. Bruzzo, op. cit., p. 337*). According to academic research on this topic, the causes for the difficulties of SMEs in upgrading their workers' skills and competences seem to be found in **the lack of customized vocational education or training specifically focused on the needs and characteristics of smaller companies** (A. Halvarsson Lundkvist, *M. Gustavsson, Conditions for Employee Learning and Innovation – Interweaving Competence Development Activities Provided by a Workplace Development Programme with Everyday Work Activities in SMEs, in Vocations and Learning, 2018, p. 46*).
The digital skills shortcomings in SMEs observed on a European scale seem also to be confirmed by data regarding investments on training in Italian SMEs, which, in addition, appears to be below the EU average (F. Pascucci, V. Temperini, *Trasformazione digitale e sviluppo delle PMI. Approcci strategici e strumenti operativi, 2017, p. 13*).
However, **digital skills development appears particularly crucial in the manufacturing sector, given the new production processes of Industry 4.0**, based on automation, digitalization, and interconnection of machinery: this brought both Italian unions and employers' associations of the metallurgy sector to introduce **an individual right to 24 hours of professional training in a three-year period** in the main national collective agreements applicable to small and medium enterprises.

With regard to the remote work issue, the research activities primarily concentrated on the terminology regarding this "new way of working". It was found that **the definition of "telework" given by the ILO, i.e. "workers who use information and communications technology (ICT) or landline telephones to carry out the work remotely"** (ILO, *Defining and measuring remote work, telework, work at home and home-based work, 2020, p. 6*) **was the most appropriate in order to label the type of work that would be taken into consideration for the purposes of the project.**
However, "telework" is nowadays not the most used term in order to define ICT-based remote work in Italy. Since the issuing of law n. 81/2017, **the most recent and common forms of remote work in Italy take indeed the name of "agile work".** Adding to the uncertainty among the meaning of the terms "agile work" and "telework" is the **widespread use of the expression "smart working" in the Italian public debate**, which, during the COVID-19 pandemic, has been frequently adopted to define remote work carried out exclusively from the employees' homes in order to prevent infections in the workplace. It needs to be noted, however, that according to many experts **the term "smart working" characterizes instead a result-oriented and trust-based management style**, which, excluding the perpetual control of the employer on the employees' activities, allows the latter to potentially carry out its tasks from outside the employers' premises and not to be constrained by predefined time slots (*M. Corso, Sfide e prospettive della rivoluzione digitale: lo smart working, Diritto delle Relazioni Industriali n. 4, 2017, p. 980*).
Smart work does not seem to be a phenomenon destined to involve only Italian companies: according to international scientific reports, **the COVID-19 pandemic is to be considered as the spark that will cause a radical shift in the way telework is carried out on a global scale**, giving way to the

diffusion of flexible smart work practices, while more "rigid" forms of telework will be left behind (ILO, *Teleworking during the COVID-19 pandemic and beyond: A Practical Guide, 2020, p. 4*)

The difficulties in the use of digital technology in SMEs, described in previous paragraphs, also reflect on the diffusion of remote work, both in Italy and in EU countries, which, according to data from the European Commission, appears **significantly lower than that in larger companies**. This circumstance dates back to the years immediately following the introduction of the European Framework Agreement on Telework of 2002: scientific literature deemed it to be mainly connected to the **costs of remote work**, (P. Neirotti, E. Paolucci, E. Raguseo, *Mapping the antecedents of telework diffusion: firm-level evidence from Italy, New Technology, Work and Employment, 2013, p. 31*) the **low level of trust confided in employees working remotely**, **and the need for a better change management** (*K. Dickson and F. Clear, Comparative European Perspectives on the Diffusion and Adoption of Telework amongst SMEs, in M. Sherif, T. Khalil, Management of Technology: New Directions in Technology Management, 2007, pp. 273-274*).
These conclusions were mostly confirmed by the answers given by the interviewees on the matter. **When asked about the elements that characterize the implementation of remote work in SMEs, some of them in fact mentioned the limited economic resources of smaller firms, which, together with the general hands-on mentality of small entrepreneurs, used to having complete control on all aspects of their organization, may hinder and/or delay digitalization**. However, it needs to be noted how others had radically different views on the matter and argued how the limited costs of the technological equipment necessary for remote work shouldn't make them an obstacle to its implementation to SMEs.

Finally, the research activities for the first phase of the IRESDES4.0 project consisted **of an analysis of 93 Italian company-level collective agreements, which regulate digital skills development and smart working practices in the metallurgy sector.** Regarding the first topic, the analysis mainly focused on a new instrument for the up- and reskilling of the Italian workforce, called "New Skills Fund" (Fondo Nuove Competenze), which conditions the access to its resources upon the conclusion of a territorial or company-level collective agreement, whose provisions must define, among other elements, the training path that he/she should follow from that moment on. These agreements showed how companies of the Italian metallurgy sector provide a variety of different training modules, **both related to strictly considered digital skills** (i.e., cybersecurity and digital documents storage systems)**, and to the innovation of the companies' production techniques**.
The collective regulation of remote work in Italian companies of the metallurgy sector was firstly described through the analysis of 36 company level agreements aimed at structurally implementing smart working as part of the company's organizational model. This effort showed, among other things, how the **topic of working space in company level agreements benefits from a higher degree of flexibility compared to that of working time, and that only a few of them outline result-oriented evaluation methods, crucial for the implementation of smart working.**
Remote work in the Italian metallurgy sector was also described through the analysis of a sample of 43 anti-COVID-19 company-level collective protocols, given that remote work has been used as a tool to prevent infection on the workplace since the beginning of the pandemic. This showed how **anti-COVID agreements do not generally provide a specific description of the rules regarding "emergency" remote work, merely stating its introduction or the extension of a previously existing project.**

The preliminary findings of the IRESDES4.0 project described in this contribution have been discussed and validated by a board of experts and stakeholders from across the European Union, who have provided a **significant number of insights regarding the regulation of remote work and digital skills development in international collective labour agreements and best practices carried out through social dialogue**. This, together with the information that will be gathered through additional interviews to international social partners, will help the IRESDES4.0 project to acquire a more international perspective, and, last but not least, to better draft its final output, i.e., **a series of recommendations, directed at European social partners, on addressing smart working and on-the-job digital skills development within CLAs and social dialogue practices**.

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