

Shaping Industrial Relations in a Digitalising Services Industry

Challenges and Opportunities for Social Partners

Summary of the Regional Reports

(English version)

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Summary of the regional reports that were published in the framework of the UNI Europa project ‘Shaping Industrial Relations in a Digitalising Services Project’

The Austrian Centre for Social Innovation (ZSI) produced five regional reports: Continental Europe (Germany, France, Austria and Benelux), Northern Europe, Central and Eastern Europe, Southern Europe and the UK. These reports summarize the developments and special features in the respective service markets, introduce major industries and describe the impact of digitalisation, political initiatives as well as the impact on the world of work and trade union responses.

Regional Report on Continental Europe (Authors: Wolfgang Haider, Ursula Holtgrewe et al., Centre for Social Innovation, Vienna)

1. Service Markets

1.1 Digitalisation and the ICT sector

The information and communications technology (ICT) sector in Germany has expanded especially since the financial crisis in 2008. It increased its share the total value added in Germany to 4.7%, the same level as automobile manufacturing (4.7%) and engineering (4.5%). In all countries, the ICT sector, partly in alliances with manufacturing or business services also has become somewhat of a role model and provider of visions for new, digital business models and modes of work organisation.

1.2 Financial and banking services

In Germany, 16% less people were employed in the financial sector in 2013 compared to 2000 and this decline is ongoing (see Roth et. al. 2015; Statistisches Bundesamt 2017, p. 355). It primarily affects low and mid-levels jobs, as back-office functions are automated or partly offshored and branches are closed. Austria provides a similar picture, with more dramatic internationalisation. As the country’s banking sector expanded massively into the CEE countries before the crisis, offshoring and consolidation of generic functions in CEE play a larger part.

1.3 Retail and E-commerce

As in banking, the digitalisation of commerce also means shifting “work” onto customers and consumers. Providing comprehensive information on products is no longer a sole duty of workers in a shop, but is shifted to online ranking and rating systems, where customers themselves are judging their purchased products

The development of e-commerce in Belgium has long been hindered by the general prohibition on night-work. In March 2016, the federal government decided to allow exceptions on this rule, under the precondition that the nature of the work justifies the organisation of night-work. In February 2017, the federal government expanded the possibilities for night-work (and work on Sundays) even further to ‘all enterprises who

perform logistic or other supportive services related to electronic trade' provided there is a collective agreement on night-work on enterprise level.

1.4 The platform economy

In Germany, crowdworking first received public attention when IBM announced its "Liquid" strategy from 2010 onwards aiming to replace the largest share of regular employment with both an internal and external crowdsourcing platform with globally standardised databases for skills and performance appraisals, project descriptions, project management tools and accounting standards.

In the Eurobarometer survey of 2016, the French were the keenest users of service and sharing platforms in Europe: 36% had used platform-based services and 7% were regular users. Germany with 20% platform users was still above the EU average of 17%. In Austria 15%, Luxemburg 13%, the Netherlands 12%, and Belgium 8% of respondents used platforms.

Even as numbers are low, the Belgian government recently took some measures to stimulate, and to a lesser extent regulate, the sharing/platform economy. A favourable tax regime was recently introduced. Whereas normally a 33% tax has to be paid, only 10% taxes have to be paid on earnings from the sharing/platform economy, as long as the income is below 5000 euro and no Value Added Tax (VAT) has to be paid. The condition is that this income is generated through state-registered platforms that distinguish the services of professionals and (non-professional) individuals. Since 1 July 2016, (only) 12 platforms received an official certificate, mostly in the field of 'house, garden and kitchen' services involving individuals.

1.5 Political debates and Union perspectives

In Austria and Germany, the policy discourse on digitalisation has been dominated by the term "Industrie 4.0" which eventually was translated across Europe.

The overarching umbrella of digitalisation policies in Germany – the so-called "Digital Agenda" – pools different initiatives and projects dealing with digitalization. ver.di and IG Metall especially succeeded in shifting attention towards the implications of digitalization for employees in both manufacturing and service sectors under the heading of "Arbeit 4.0"

On digitalization in the service sector, ver.di is the most active player in Germany. Besides a number of position papers dealing with the challenges of digitalisation, they also conduct concrete projects where they are implementing their strategic guidelines. Some collective agreements in the ICT sector (e.g. with Deutsche Telekom) cover issues such as working hours, rights to be disconnected and skill development ("Arbeitszeitkonto").

In the case of Austria, no high-level strategy as sophisticated as the German white-paper exists that frames the debate on digitalization. Nevertheless, the previous Austrian government issued a "Digital Roadmap", elaborated in 2016 under consultation of experts, citizens and social partners, that fleshes out an overarching vision of a digitalized Austria in the year 2025.

Both the German and Austrian programmes have much content in common. "Arbeit 4.0" has a sound legal framework of some re-regulation of the labour market at its core to secure the well-being and protection of workers in Germany, and the Austrian roadmap also stresses the necessity of an adequate legal framework for online platforms and new forms of labour that are observable in this sector. Skill development is at the core of measures to be pursued in both programmes.

France has had a series of reports since 2015 by the personnel manager of telecommunications company Orange, Conseil d'analyse économique and the government consultancy France Stratégie.

The Belgian government recently launched Digital Belgium, which constitutes the mission and vision on digitalization. An online government, digital economy, digital infrastructure, security and accessibility and a digitalization of medical administration are the five priorities of the Belgian government. With regard to the digital economy, the focus lies on digital friendly regulations (such as the tax friendly arrangement for the sharing economy), an e-commerce platform (see above), e-invoicing, e-signature, e-archiving as well as a strong emphasis on the possibilities of digital technology in health related applications.

2. Service labour markets

Service labour markets in Continental Europe are somewhat varied. One reason for that variety mirrors the size differences in the service sector Germany and Austria still have more people employed in manufacturing than the other countries.

In Austria 72,4% of the employed are working in the service sector, while in Germany the number is even higher with 74,5%. Since 2000 the rate of employment in the service sector has grown notably in both countries. Starting from a fairly equal point in both of the countries (63,9% Austria, 63,8% Germany), employment grew by 5,8% in Austria and 7,5% in Germany.

For women, concentration of work in the services is even higher and feminisation of the services has still increased in the 2000s, but most or all of it in Austria and Belgium consists in part-time work.

2.1 Jobs affected by digitalisation

Analyses in Germany and France expect financial services, general administration and sales work are expected to decline and financial services are losing employment already. Expansion is expected in research- and technology-related occupations, creative and media work, management and the professions, and the largest expansion is seen in the personal service, at both the lower-paid and the higher-paid ends of the spectrum. All of this strongly suggests a decline in the mid-level traditional office jobs that are traditionally located in large companies and have been traditional trade union strongholds, and a more polarised labour market in services – unless skills and wages are consistently upgraded.

2.2 Skill initiatives

In early education, France has introduced programming as a subject in schools and “Digitalisation Sciences” have become an elective subject. Both in Germany and in Austria there has been high expenditure for introducing digital equipment to schools but currently, initiatives are based on proactive schools and other institutions, with standardized (compulsory) skill building in early education skills missing. In the Netherlands, the focus is also on „information literacy“ and media skills.

2.3 Polarisation and low-wage work

At present, polarisation of labour markets is not a consistent picture in Continental Europe. From 2011 - 2016, only Belgium shows a clear pattern of employment polarisation with expansion in the lowest- and highest paying quintiles of jobs. Indeed, the amount of low skilled jobs increased slightly in the period between 1993 and 2013.

At present, the proportion of low-wage earners (who earn two thirds or less of the national median gross hourly earnings) in the Continental-European countries is a related instance of variation. Germany has been somewhat notorious for its large low-wage sector since the 1990s. In 2014, before the introduction of a national minimum wage, has had 22.48% of all employed in the low-wage sector. The OECD reported that the minimum wage has not affected employment⁶ but as minimum wages are still at the low end this may not immediately affect the share of low-wage earners. In the Netherlands with 18.52% the proportion of low wage earners is also above the EU average. Here, the wide-spread use of part-time work plays a part. Austria, France and Belgium remain below the EU average. These countries have „inclusive“ industrial relations systems with wide coverage by collective agreements that clearly make a difference.

2.4 Flexible, atypical, precarious

“Marginal” part time work carries some exemption from taxes or social security contributions⁷, and is common in Germany, Austria and the Netherlands. France has seen an increase in fixed-term employment from 5% of all jobs in 1984 to 13% in 2016 with increasingly shorter duration, sometimes of a week or a month.

2.5 Solo self-employment

Currently, we are seeing different national rates of solo self-employment: Germany and Austria have the lowest rates, with Germany going into decline from 2013 after a slow increase. Austria saw a step-wise decrease from its peak in 2008. In France, there has been a remarkable rise in “solopreneurs” (solo self-employment) since 2014 after being low for years. Belgium and the Netherlands now have the highest rates. The Netherlands had their increase in 2010 whereas the Belgian share has been climbing steadily. The increase of self-employed mainly took place in growing service sectors such as ICT and B2B services and over 70% of the self-employed are men.

3. Company strategies and work organization

Technology does not determine work organisation but enables various scenarios along the lines of either more collaborative and empowered modes of working or more standardised and regimented ones. These two paths, known as the “high road” or “low road”, are not new but have been observed throughout various technological waves and across sectors. Either way, digitalisation means that more service work can be conducted remotely, from home, at the customer’s site or when travelling.

3.1 Offshoring and outsourcing

Whereas company restructuring generally has first been investigated in various manufacturing sectors, it also shows effects in services. Both generic and specialist services have been outsourced, and this is one part of the expansion of service sectors across Europe in the last decades

A recent study using German social security records was able to show the same mechanism for the entire German labour market: the outsourcing of generic services such as cleaning, catering, security and logistics decreased wages in these functions by 10-15%. Services outsourcing alone accounted for some 10% of the increase in German wage inequality since the 1980s.

In outsourced services, clients have considerable influence on work organisation and working conditions –challenging for works councils’ rights and their possibilities of co-determination or participation. For example, a transnational provider of call and service

centre services in Germany leaves decisions on workers' discretion over working and actual problem-solving, and also on incentives to its clients to a large degree.

Digitalisation is on the one hand mostly considered an enabler of further outsourcing and restructuring up to the use of crowdsourcing with platforms or new intermediaries also providing tools for managing "crowds". On the other hand, in some sectors, for example in both Deutsche Telekom and the French telco multinational Orange, there are recent examples of backshoring of customer service as the more standardized functions are shifted to app-based self-service by customers and the quality of the remaining, more complex tasks gains importance.

3.2 Remote working

Recent company agreements, for example in Germany and France, aim to regulate availability of workers and establish a "right to switch off" electronic devices. They oblige both management and co-workers to respect these rights, for example send messages later.

3.3 Work monitoring

Among works councillors, the ver.di innovation barometer 2015 showed that 70% of representatives in the service sector see increased reachability of workers as the biggest issue, followed by privacy and data protection rights (57%), mobile working (53%) and atypical employment (37%).

Regional Report on Northern Europe (Authors: Anna Ilsoe, FAOS, Danmark)

1. Service Markets in the Nordic countries

1.1 The context: services in the Nordic countries

The service sector plays an increasing role on the Nordic labour markets – although with some nuances. The general trend is that employment growth takes place in the tertiary sector. For instance, more than 80 percent of employed Danes are working in the service sector – 50 percent in private services and 30 percent in public services – and employment in the service sector has grown with 57.000 persons since the Global Financial Crisis in 2008.

Tripartite co-operation and negotiations between the state, employers' organizations and labour unions are therefore an important element of the Nordic models of labour market regulation. The unemployment insurance system is central to this cooperation – unions administer unemployment benefits and the state provides funding in addition to the contributions paid by members of the unemployment insurance.

The Nordic countries all score very highly on international indexes of ICT access and use – Denmark, Iceland, Sweden, Norway and Finland are all among the top 10 of the UN ICT Development Index and Denmark, Sweden, Norway and Finland are in the top ten of the Digital Readiness Index. The first index tells us about the ICT access in the Nordics, whereas the second tell us about the usage. Most citizens and companies in the Nordics have bought items online, communicated digitally with the public sector and paid bills online. Public investment in digital solutions is high in the Nordic welfare states, and this has acted as an additional driver of digitalization.

1.2 Policy debates on digitalization and social partner responses

The digitalization of work and labour markets has been in the center of attention in both public and private debates in the Nordic countries.

The Swedish union Unionen, which organizes a large share of service workers in Sweden, has published a report with suggestions especially on the regulation of the sharing economy in a way that sustains the voluntarist model of labour market regulation. The Danish and Norwegian confederations of trade unions have published policy papers on the sharing economy.

Sweden has concluded more than eight tripartite commissions on topics related to digital labour markets.

1.3 Specific service sectors

Retail

Retail is one of the largest service industries in the world and also in the Nordics if measuring by number of employed people.

Many retail chains are owned by either Nordic or foreign-owned capital funds. E-commerce is playing an increasing role within retail, which means that global companies can take over market shares from national companies. However, Nordic retailers increasingly have e-commerce in their business models as well – especially directed towards the Nordic markets.

In recent years, a number of Nordic retailers have introduced self-scanners where the customers scan and pay on their own, when they leave the shop.

Banking

Banking is one of the larger service industries in the Nordics – a number of Nordic banks operates in several European countries and are in fact transnational companies. Good examples of this are Nordea, SEB and Danske Bank.

One Nordic union, Finansforbundet in Denmark, has taken a proactive initiative to handle developments together with the banking association Finance Denmark and the City of Copenhagen. They are running a Copenhagen Fintech Lab, which offers office space for 100 fintech entrepreneurs at the union headquarters, which allows them to interact and communicate with the frontrunners in future banking.

1.4 Platforms

In general, digitalization accelerates economic activities through digital platforms. Foreign platforms like Airbnb (rental of housing) and Upwork (work at the computer) as well as Nordic platforms like Wecclean in Norway (cleaning in private homes) and Worksome in Denmark (academic work) have made it significantly easier and accessible to all to earn an extra income by offering services online.

Currently most platform workers supplement other incomes. Danish surveys confirms the tendency observed in the US – the use of the digital platforms are still limited. 1 per cent of Danes have earned money via a labour platform during the last year, whereas 1,5 per cent have earned money via capital platform. Most have earned less than € 3300 per year before taxes.

2. Digitalization of work and the development in service labour markets

Digitization of the labor market and its consequences have been debated for many years in media, politics and research, but the discussion has intensified in Europe since the 2010s.

Innovative policy responses in the Nordic sphere to this development could form a basis for discussion in others countries: 1. The new agreement on unemployment benefits in Denmark, 2. The new pension schemes in the Danish pension funds PFA and PKA.

2.1 The new agreement on unemployment benefits in Denmark

After the latest reform of unemployment benefits in Denmark, it soon became clear for the Danish social partners that the question of self-employment– and those self-employed that combine freelance work with regular jobs or unemployment benefits – remains a challenge to the existing system. Therefore a group was formed to work on an adjustment. They reached an agreement just before summer 2017 (to be confirmed in parliament later), which allows all members of the Danish unemployment insurance system to report their income as either a wage from a job or a fee from independent work - according to their own judgement. The members decide the status of their income themselves. This means that any source of income now counts, when members seek to earn the right to another period of unemployment benefits (which is two years in Denmark). By handing the decision on the work status to workers themselves, this agreement may be able to overcome the long list of challenges that arise, when gig work is registered by the public authorities in relation to social assistance, student allowances and many other social rights in the Nordic welfare states.

2.2 The new pension schemes in the Danish pension funds PFA and PKA

The Danish pension funds PFA and PKA have introduced pension schemes for those employed that are members of a trade union but NOT covered by a collective agreement. This is especially relevant for the self-employed. PFA is a private pension fund, the largest in Denmark, and cooperates with many Danish trade unions on labour market pensions. A number of these unions, including the Financial Services Union in Denmark (Finansforbundet) and The Union of Commercial and Clerical Employees in Denmark (HK), which organizes retail workers and administrative workers, have created a new pension scheme for their members via PFA called MedlemsPlus. This scheme has many similar qualities as the labour market pension for workers covered by the collective agreement (insurances, low admin costs) and is an overall better option compared to private pensions. It allows union members without collective agreements to get access to an attractive pension scheme – and it allows the unions to retain and perhaps also recruit union members that combine wage earner jobs with self-employment or who shift between jobs and independent work during their career. Recently, PKA, a member-owned large pension fund for employees in the public sector, launched a similar initiative called PKA-Privat (<https://www.pka.dk/pkaprivat/>). It will be interesting to follow the effects of these two pension schemes on union densities – can such pension schemes be a driver of organization among the self-employed in the Nordic countries? As the Nordic models of labour market regulation are voluntarist models, such an effect could be important for the sustainability of the Nordic models.

Regional Report on Central and Eastern Europe (Author: Vassil Kirov, Professor Bulgarian Academy of Science, Associate Researcher, ETUI)

1. Service Markets in Central Eastern Europe (CEE)

1.1 Expansion of the services sector in CEE

Different types of East-European capitalism:

- the Central European states (Poland, Hungary, Czech Republic and Slovakia),
- the Balkan states (such as Romania and Bulgaria or yet Croatia),
- and the Baltic States (Estonia, Latvia and Lithuania).

The service sector of CEECs has experienced spectacular development after the fall of communism: while industrial employment was predominant before 1989, already at the end of the 1990s and the first decade of the 2000s services have become the main employer. The development of the main service sectors has followed different paths. Some of them integrated global value chains (GVC) and often have been developed with intensive foreign direct investment (FDI) – such as financial services, ICT, business services and so on. Other services such as commerce attracted FDI, but also were developed by local investors. In locally-bound low-wage services such as cleaning, care, catering and so on the role of internationalisation is limited.

Not surprisingly, the digitalization of service markets in CEECs is relatively limited, compared to the West European countries. The European Commission's Digital Economy and Society Index (DESI) is a composite index that summarises relevant indicators on Europe's digital performance and tracks the evolution of EU member states in digital competitiveness. The 2017 ranking shows that CEE countries rank lowest results in the overall index among all employment and IR regimes in Europe (with the exception of Estonia and Lithuania which rank above the EU average).

The main driver for the digitization and automation in service markets is foreign direct investment and the development of the local ICT sectors.

1.2 Specific service sectors

The financial services in CEE (and particularly banks and insurance companies) have been acquired by major players from Western Europe and other developed regions; and nowadays most of the banks and insurance companies belong to different banking groups from Germany, France, Italy, Austria etc.

The commerce sector is also well expanding, involving both large multinationals and small or medium-sized local companies. According to a Eurofound study, the commerce sector is experiencing rapid internationalization in the CEE countries and most of the major West European retail chains are well established in the region (such as Tesco, Carrefour, Metro and so on).

1.3 Platform work

Platform work is not unknown in CEECs, but for the moment there are no estimations of its size. The Eurofound study of new forms of employment concludes that platform work is not much of a presence in Eastern Europe.

However in CEE countries numerous employees are registered at the global platforms such as Upwork and others. Indeed, according to different sources, individuals from CEE countries (e.g. Romania, Poland, Bulgaria, and Serbia) are among the most active users of crowd employment platforms.

2. Service labour markets

Service labour markets in CEECs are highly differentiated in terms of working conditions, wages and skills development. Highly knowledge intensive sectors offer stable and secured employment, while low qualified and labour intensive ground services are known for their high turnover, low wages, precarious contracts and hazardous conditions

2.1 Typical versus atypical employment

In Central and Eastern Europe open-ended contracts still dominate the economies. According to a recent report on precarious work in Europe of the European Parliament, part-time work still plays a minor role in most of the Eastern and also Southern European countries.

While in some CEECs the use of precarious employment arrangements has increased significantly (for instance the so called 'junk contracts' in Poland), the use of the classic forms of atypical employment such as part-time or fixed-term contracts are limited in Bulgaria or Romania.

2.2 Skills

The CEE countries are among the least involved in the provision of skills within the EU. According to Eurostat, less than 10% of the companies in the new member states provide initial vocational training. Countries from this region are also among the less active in the provision of continuous vocational training.

2.3 Wages

Workers and employees in knowledge-intensive business services or ICT often receive comparatively very high wages in CEECs. Data for Bulgaria suggests that in 2016 ICT employees earn more than 1200 Euro per month in average, while the median wage of the country is 500 Euros.

At the same time, for the CEE region in general the share of low wage earners is higher than for the EU countries in general. The largest share of low wage earners for 2014 is located in Latvia, Romania, Lithuania and Poland. The sectors concentrating low wage work include hospitality, commerce, agriculture and different grounded services.

3. Work organisation and company strategies

CEECs integrated into global value chains rather quickly after the political changes of 1989 – 1990. The main driving force is FDI. Both foreign ownership of subsidiaries and the customer-service provider relations of outsourcing, that is, hierarchies and markets, create asymmetrical relationships. Finally, economic dependency is also, and not marginally, structured by the transfer of migrant remittances that in South-Eastern Europe have sometimes exceeded FDI flows of capital, most notably in the Western Balkans.

3.1 Work organisation

Four main types of work organisation models across European countries:

- Discretionary learning forms of work organisation;
- Lean production;
- Taylorist work organisation;
- Traditional or simple forms of work organisation.

4. Conclusions

CEE countries underwent massive political, economic and social transformation after 1989. While there are a number of divergences among CEE countries, these economies integrated into global value chains, including in services.

The service markets are strongly influenced by FDI or speaking largely, by the coordinating centres of the global value chains involved (that are located very often outside CEE). FDI introduces not only new technologies, but also new work organisation, management and skills acquisition methods. Digitalization and automation follow the developments in other regimes but CEE countries lag behind.

The service labour markets follow differentiated paths, some of them offering sustainable working conditions, while others have more precarious conditions. In general in the region atypical forms of employment are less common than in Western Europe. Skills acquisition is strongly influenced by companies, as state institutions in many countries have difficulties in addressing skill gaps successfully.

Work organisation and working conditions are strongly influenced by the integration or non-integration of service companies within global value chains (segmentation). Still with few exceptions learning organisations are less present within CEECs.

Finally, this configuration presents some challenges for unions in services:

- Trade unions are generally weak in the service sectors in CEE – in general trade unions are stronger and better developed in manufacturing, public administration and public services (or former public services such as telecommunications companies with roots in state-owned incumbents). Service sectors are often underrepresented both in the low wage services (about 1% union density in Bulgaria or Romania in the commerce sector) and in knowledge-intensive services (banking, ICT). In the latter the question is how to organise collective action in sectors that offer comparatively good conditions and/or are very individualized (ICT).
- The new developments related to digitalization, automation, etc. are rarely on the agenda of national service unions – some debates on the future of work are emerging but often they are somewhat disconnected from national realities characterised by uneven and very segmented developments between regions, sectors and types of companies. In addition, knowledge about digitalization process is insufficient as well as the digitalization impacts on quality of work;
- Coordination of employees' representation within MNC (e.g. EWC) or global value chains – as FDIs are the main driver of technological change, the coordination of employees' representation at the EU level could be very helpful for CEE unions in terms of information and analysis of the scope of present and future challenges. This will allow reflecting on trends developed in more developed regions in Europe but also to address the specific asymmetries and dependencies of CEE service sectors.

Regional Report on the UK (Author: Anita Sharma, University of Hertfordshire)

1. Service Markets in the UK

1.1 Dominance of the service sector in UK economy

The UK has the fifth largest economy in the world with the services sector dominating the UK by contributing roughly 80 percent of the GDP. The financial services sector dominates with London being a major global financial centre. Other business services and consumer facing services however are also growing including IT, professional services, travel and hospitality, management consultancy and the creative industries.

The Office of National Statistics has highlighted five key features of the UK service sector:

- Seventy-nine percent of UK Gross Domestic Product (GDP) came from the service sector in 2013.
- By 2011, around 80 percent of workers were in the service industry and around 10 per cent in manufacturing.
- The service sector dominates London's economy with 91 percent, higher than all other areas of the UK.
- The UK's economy is more reliant on the service sector than any other G7 country. Although France and the US also derive a relatively high proportion of GDP from services this is in strong contrast to Germany where a lower proportion (69 percent) of GDP came from the service sector in 2014 – however, more service and administrative functions there remain located in the manufacturing sector.
- The service sector has driven the economic recovery since the downturn in 2008. Four main sectors feed into UK GDP – agriculture, construction, production and services. Out of these, the service sector was the first to recover after the economic downturn in 2008.

1.2 UK Government initiatives supporting a digital economy

In 2016 the Government pledged 13 million to support the creation of The Productivity Council to drive engagement with business and improve productivity across the economy, through use of digital technologies. Its remit is to connect, encourage and amplify the impact of existing initiatives to improve productivity, acting as the UK's productivity 'centre of excellence'. The Productivity Leadership Group, as it is now known, will draw on the expertise and advice of representatives from a number of businesses and industries (KPMG, Rolls-Royce, Amazon etc) and leading industry bodies such as the Confederation of British Industry (CBI) and the Institute of Directors (IoD).

UK Tech City UK launched by former Prime Minister David Cameron, has a mission to accelerate the growth of London and the UK's digital economy, with a focus on areas like digital skills, smart capital investment, infrastructure, international development and leadership.

The Tech Nation 2017, the third annual report of Tech City UK, shows that the digital economy is growing twice as fast as the wider economy with an economic output of close to £100 billion per year.

In 2016 the UK was shown to have secured £6.8 billion in venture capital and private equity investment, over 50 percent more than any other European country.

Innovate UK, another Government innovation agency, focuses on science and technology and works with UK innovators to provide investment, capacity building, experiment and learning, contributing towards making the UK digital sectors successful and

profitable. Mariana Mazzucato, a leading economist who works with the UK government in Innovate UK draws attention to the ways in which governments can help economies grow, by taking risks in the realm of innovation through technological R&D and mission-oriented strategic public-sector investment. She debunks 'the sectoral approach with its limitations and promotes new collaborations between public and private actors; working within an ecosystem of public, private and third sector actors across the innovation chain'.

The Government's Digital Strategy Policy Paper published in March 2017 (DCMS) is divided into seven strands covering connectivity, skills, digital businesses, data, digital government, cyberspace and the wider economy and provides a framework on how to build and maintain a world-class digital infrastructure and a commitment to being more entrepreneurial:

- focuses its attention on the need to boost world-leading digital sectors and overcome barriers to growth and innovation, creating more of the high-skilled, high-paid jobs of the future,
- highlights the need to deliver first-class digital infrastructure and advanced skills base so that businesses across the country are able to take advantage of the digital tools,
- seeks to close the digital divide - to ensure that everyone is able to access and use the digital services that could help them manage their lives, progress at work, improve their health and wellbeing, and connect to friends and family.

Although seen as a step in the right direction, this was met with mixed reviews from tech entrepreneurs on a number of issues ranging from cyber security, skills shortages, awareness of the rural-urban divide, encouraging overseas investors and failure to address the potential Brexit brain drain.

The Digital Skills Partnership also brings Government, business, charities and voluntary organisations together to provide the right skills and the digital training to people. This Government-led proposal aims to make sure no one is left behind. The numerous schemes being put forward to some extent incorporate the triple helix concept in so far as the three major players combined with citizens/end-users come together to innovate and promote a stronger digital economy. The strategy includes new commitments - a plan by Lloyds Banking Group to give face-to-face digital skills training to 2.5 million individuals, charities and small and medium businesses by 2020; plans by Barclays Bank to teach basic coding to 45,000 more children and assist up to one million people with general digital skills and cyber awareness; and a pledge by Google, as part of the worker commitment of five hours of free digital skills for everyone, to help boost digital skills in seaside towns. The Digital High Streets Initiative has also been set up to help businesses become more digitally capable. This proliferation of initiatives suggests a softer neoliberalism, more socially innovative, with a push towards collaboration between the private and public sector; between financial sectors and charities and service providers, working towards greater equality. The ultimate goal however is to raise competitiveness, growth and sustainability, entrepreneurialism and investment within the country.

1.3 Key UK Service Sectors

This ever-expanding service sector in the UK needs to be considered in relation to two key areas:

- Financial and business services including banking, insurance, securities, fund management, legal accounting and management consultancy;

- Consumer services - public and private, incorporating retail, hospitality, real estate, tourism, the creative industries, education, health and communication.

Financial and Business Services

London forms one of the three major financial/economic hubs on the globe alongside New York and Tokyo, with other cities like Edinburgh creating one of the largest financial centres in Europe. Nearly 2.2 million people are employed in the financial and related professional services across the UK, which accounts for over 7 per cent of the country's total employment.

Following the 2008 financial crisis the UK has become the global hub for financial technology or 'fintech' leading the way with innovative approaches on how consumers use money and transact with businesses.

The financial sector has always been one of the early adopters of technology because of its reliance on IT to optimize business functions and client interactions. Mobile banking in the UK is reported to double from 17.8 million in 2015 to 32.6 million by 2020 according to Fiserv. Mobile focused banks such as Mondo will provide innovative, personalised services entirely via a mobile app and cash card, incorporating biometrics, geolocation services and detailed notifications about spending, using real time data to communicate.

Long established banks are also constantly collaborating with technological advancements and innovation to stay relevant, for example, Barclays Bank have embraced wearables, launching a bPay product range in the UK consisting of a digital wallet linked to a wristband, fob or sticker, which can be used at more than 300,000 locations across the UK. Royal Bank of Scotland are now using biometrics by enabling Touch ID on its banking app, and a number of banks have signed up to Apple Pay.

Within insurance there is growing peer-to-peer insurance, with billions going into insurtech start ups challenging the big companies such as So-sure, Friend-surance, Lemonade, Trov and Brolly. Other changes lie in telematic policies to keep premiums down. With year on year increases of almost 20 percent, the use of a black box or in-car telematics such as Insure the Box and Carrot could be beneficial to the motorist and to road safety. These devices measure how well a driver drives, creates a driving score and sets insurance premiums in accordance.

Consumer Services

As with the financial and business sectors, the consumer sector has been impacted in every area, with nearly 4 out of 5 adults in possession of a smart phone, with many people connected at all times. As Total Retail Survey (2016) showed consumers are becoming more demanding through use of social media and the use of digital technology; they want convenience, variety and personalization. Price and quality are a given but most important is ease of use.

1.4 Platforms and policy responses

Sharing Economy UK launched in March 2015 was set up to champion and represent the shared economy businesses in the UK, working with the Government and policy-makers to protect consumers and shared businesses alike; a trade body championing the UK sharing economy and ensuring best practice. It has created the Trust Seal, a code of conduct, which are a series of principles that businesses in the UK economy should abide by in terms of data protection, security, identity verification and ensuring

clarity of communication between the platforms and users. Some of its members include Airbnb, Ticket exchange StubHub and petsitting/travel website Trusted Houseitters. As of 2017 it has become part of the Confederation of British Industry (CBI).

Most recently, a Government review was commissioned examining employment laws, and how to provide workers with access to their rights. Matthew Taylor, Chief Executive of the Royal Society of Arts, set out his blueprint for a UK economy, *Good Work: The Taylor Review of Modern Working Practices* (2017). The report investigates the changing nature of employment – freelance, flexible, short-term, part-time, casual work and draws a comparison between ‘good’ work and ‘bad’ work. The former means work that boosts the nation’s earning power and productivity, and enhances workers’ well-being and happiness; the latter focuses on the one-sided flexibility in favour of the employer, and the risk and instability resting with the workers. Unions and employment lawyers criticised the report as feeble and not doing enough to end insecurity and exploitation for workers. The creation of the new worker category of ‘dependent contractor’ was seen by lawyers as further complicating existing categories of how workers are defined in law.

2. Service Labour Markets

2.1 The changing job market

In the UK, the gap between the earnings of skilled and unskilled workers has risen in recent years, mainly for two reasons: the changing economy arising from technological change has increased the productivity of many skilled workers, with application of IT often easier within skilled occupations compared with unskilled ones. International trade and globalisation have had a significant downward impact on the pay of the unskilled.

Analysis by the Trades Union Congress (2017) shows that the ‘gig economy’ which includes not just platform working but zero-hour contracts, freelancing, short term contracts, often exploitative and insecure, has led to increased racial disparities in the labour market, with many more ethnic minority workers facing insecurity and precariousness in the employment market. It found that the proportion of black workers in temporary jobs jumped 58 percent between 2011 and 2016; over seven times the 8 percent increase for white workers. The number of black women on temporary contracts rose by 82 percent in that time, compared with 37 percent increase for black men.

2.2 Precarious working

The major drawback with growth of the ‘gig economy’ is greater informalisation of the economy which makes it harder to enforce employment laws. This has resulted in many workers finding themselves exploited, under-paid and devoid of basic workers’ rights in terms of minimum wage, holiday, sickness benefits and good quality working conditions. ‘Flexibility’ of work often cited as positive needs to be looked at in conjunction with ‘choice’ or lack of it. According to a survey of 2000 people by Glassdoor with One Poll (2017) only 13 percent of people in their survey across all types of employment wanted to work in the gig economy, 76 percent favoured full time permanent employment. 35 percent said the biggest draw of the gig economy was the flexibility.

The impact of digitalization has led to a number of changes within the employment sector. Across the economy, “work on demand” is becoming a new norm for jobs as

varied as supply teachers, agency nurses, supermarket checkout operators and call centre workers.

3. Company Strategies and Work Organization

3.1 Offshoring, Outsourcing and Offshore Outsourcing

The UK now has a mature public services outsourcing market, with 30 years' experience of contracting public services out to the private and voluntary sectors. For greater efficiency and cutting costs over the decades, public sector services have been outsourced; 'contracting out' or outsourcing is seen as the way to reform public services and improving value for money. Some of the most well-known private providers of public services in the UK include Atos, Capita (call centre services for British Gas, RSPCA), Serco (Defence Business Services/Prisons) and G4S (Prisons).

3.2 Service value chains

Whereas in the past outsourcing processes and value chain analysis focused on manufacturing, these concepts are now very relevant to the service sectors in the UK and elsewhere. There is a growing trend in financial services and the public sector relying on externalisation and outsourcing of service functions namely specialised accounting, IT services, R&D, human resource management, through call centres and the use of suppliers and service providers across many organisations.

3.3 New forms of work and industrial relations – issues, debates and policies

Some of the many phenomena and work trends linked to digitalisation of the service sectors include: a) different forms of work organization – online platforms, crowdwork, virtual work beyond spatial and temporal boundaries; (b) different forms of contract - including self-employment, independent contractors, zero hour contracts, flexible hours; (c) the social impacts of these such as precarity, exploitation of workers eg. women and ethnic minorities, lack of skills/training.

The TUC published a report *Living on the Edge – the Rise of Job insecurity in Modern Britain* (2016) where the focus is on the changing world of work, and the impact of technology on the workforce. By concentrating on the relationship between employers and employees it highlights the growing insecurity in the workforce. By looking specifically at online platforms, it showed improved flexibility for employers, at the expense of a huge increase of numbers of contract workers on a piece-work basis, the increase of zero-hour contracts, agency workers and the growing band of self-employed. The report showed how insecure workers lack workers' rights, benefits, protection at work and access to pensions.

3.4 Disruptive Innovators and 'self-employment'

Both Uber and Airbnb are in constant global conflict about permits and employment lawsuits, regularly participating in official hearings and releasing their own reports on the positive social impacts they have.

One of the main controversies around Uber has always been whether its drivers are 'independent contractors' or employees. The company claims they are the former allowing them to avoid workers' rights such as minimum pay, sick or holiday pay, and pensions. Uber began operations in London in 2012 and was officially registered by Transport for London (TfL), and although it faced and continually faces opposition from the Black Cab Drivers and its representative body LTDA it continues to grow - with its ride sharing service UberPool and its food delivery service UberEats. In 2016 there

were 30,000 Uber vehicles. In 2017 however TfL have decided not to renew Uber's London licence to operate, which expires September 2017 stating it felt it was not a 'fit and proper' private car hire operator; also stating it did not report criminal offences by its drivers or do proper background clearance checks. Over the last few years increasingly hostile relations have been heightened by legal action brought by Uber.

Uber's greatest problem in London is with its drivers, their treatment and their status. The fundamental 'sharing economy' ethos of Uber is that its drivers are called 'registered partners' rather than 'company employees'. However, although drivers use and maintain their own vehicles they pay twenty five percent commission on each ride and provide no benefits, causing discontent among the workforce. An employment tribunal ruling, in a landmark legal case in October 2016 stated that Uber drivers in Britain are 'workers' and not 'self-employed contractors' and therefore entitled to basic workers' rights - minimum wages and holiday pay.

Report on Southern Europe (Authors: Stefano Gasparri and Arianna Tassinari, Warwick Business School)

1. Service Markets in Southern Europe

1.1 Background: Services and unions in Southern Europe

The weight of the service sector in the GDP of Southern European economies is considerable, and of comparable magnitude in all four countries - ranging from 73.8% of GDP in 2015 in Spain to 80.19% in Greece. In all four countries the weight of the service sector as a component of GDP has been growing over the last 10 years.

This is also a side-effect of the 2008- 2009 global economic crisis and its aftermath, which increased the relative weight of the service sector in Southern European countries, in some cases rather dramatically, as in Greece and Spain, where manufacturing and constructions have been particularly hit.

In 2015, the service sector accounted for 69.65% of total employment in Italy; 71.45% in Greece; 68.12% in Portugal; and 75.97% in Spain. A large portion of these workers is in Small and Medium-sized Enterprises (SME), which are more diffused in Southern Europe than elsewhere. Such high incidence of SMEs in the Southern European productive system is identified as a key factor reducing the level of overall digitalisation of the economy. A key issue specific to Southern European economies that emerges from the literature reviewed is the extent to which firms in different branches of the service sector, and especially SMEs, are able to take advantage of the opportunities offered by digitalisation.

In Italy, where the average unionisation rate is 31.6%, according to 2015 data from the Italian Statistical Agency the rate of unionisation in the service sector is, overall, relatively lower, but it varies considerably from 18.8% in the commerce sector and 24.6% in the information and communication services sector, to 30% in the hospitality sector and a peak of 55.5% in financial and insurance service. In Spain, where the average rate of overall unionisation is generally lower (18.9%), unionisation rates in services varied from 8% in personal services to 10.9% in trade and hospitality, to 23.6% in transport and communications and 26.6% in financial services.

Each country has a particular combination of types of services, such as more knowledge-intensive vs lower-skilled services, immaterial vs location-bound services, and business-to-consumer/personal vs business-to-business services.

Intra-national differences in terms of digitalisation are evident. The case of 'smart cities' in Italy substantiates this point. Following the EP report on Smart City (2014), which defines a Smart City as 'a city seeking to address public issues via ICT-based solutions on the basis of a multi-stakeholder, municipally-based partnership', we note that digitalisation is a key component for economic and social development inasmuch it is understood and implemented holistically. In this regard, the EU notes that Italy has the highest percentage of smart cities in the Continent (followed by Austria, the Nordic Member States, Estonia and Slovenia), but those cities are mostly located in the Northern area, therefore confirming the presence of wide regional differences.

1.2 Policy initiatives in South European Services

Addressing the digital infrastructural divide

Structural issues around the uneven development of ICT infrastructures (e.g. availability of broadband internet connection) and the uneven take-up of ICT technology are a common issue in Southern European economies.

In Spain, a high-profile government initiative, the so-called 'Agenda Digital por España 2015-2020'³ (Digital Agenda for Spain), has been launched to substantiate the EU 2010 call for a Digital Agenda for Europe and drive forward the penetration of digitalisation in the Spanish economy – although it is important to specify that this is a cross-cutting initiative, not focused specifically on the service sector. The agenda is structured around six major goals: fostering the deployment of networks and services to guarantee digital connectivity; developing the digital economy for the growth, competitiveness and internationalization of Spanish companies; improving e-Administration and adopt digital solutions for efficient provision of public services; reinforcing confidence in the digital environment; boosting the Research, Development & Innovation system in ICT; and promoting digital inclusion and literacy and the training of new ICT professionals. The agenda also includes a 'Plan for digital inclusion and employability' with some involvement of social partner organisations. The plan establishes a set of specific goals structured around four lines of action: (1) Accessibility; (2) Digital inclusion; (3) Equality; and (4) Employability. Focusing the attention in the last one, there are three goals related to employability: (a) Allocating resources to continuing training and acquisition of digital skills; (b) Reorienting ICT-related Vocational Training; and (c) Improving the offer of university training for ICT professionals. Whilst the Spanish social partners are not directly involved in the implementation of 'Agenda Digital por España', there is evidence of trade unions' initiatives in this area. For example, in April 2017 the largest Spanish union confederation, CCOO, launched proposals for a State Pact for the Digitalization of Spanish Society ('Pacto de Estado por la digitalización de la sociedad española'). In response, the Spanish Ministry for Energy, Tourism and the Digital Agenda proposed in April 2017 to open a permanent dialogue table with the social partners and the Ministry of Employment on the issue of digital reform.

A similar initiative is in place in Portugal, where Agenda Portugal Digital was first launched by the national government in 2012 and then renewed in 2015. According to the available evidence, there is however no direct involvement of the social partners in the design or oversight of the implementation of Agenda Digital Portugal and of the Programa Interface.

In Italy we found a government-led initiative inspired to the promotion of a Digital Agenda. This is called 'Agenda Digitale Italia' and has been launched in 2012 with an explicit reference to the broader EU initiative. Concretely, with this initiative the government promotes, mostly through financial support, interventions on seven areas: digital infrastructure as next generation broadband; public administration, especially measures on e-procurement; open data, focused on transparency and e-Government; digital skills and up-skilling programmes, in line with the EU Grand Coalition for Digital Jobs; smart cities and communities; internet governance; market innovations as the ones inspired to Cloud for Europe.

Finally, the promotion of a Digital Agenda is present in Greece as early as 2000, when the government launched the initiative 'Digital Local Authority' to promote digital services across the whole of Greece. It follows two other key interventions: 'The Greek Digital Strategy 2006-2013', and the 'National next generation broadband access plan 2014-2020'. Their overarching aim is the full development of digital infrastructure.

Overall, we can see that a common trait of these initiatives is the combined emphasis on investment in digital infrastructures as well as on the development of digital skills to favour digital inclusion

1.2.1 Policy initiatives: Automation and Industry 4.0

So far, the main public policy initiatives relevant to the topic of automation are those connected to the development of so-called 'Industry 4.0' strategies. Governmental initiatives focused on favouring the development of Industry 4.0 and the digitalisation of the industrial sector are in place in Spain (Industria Conectada 4.0, launched in 2015)¹¹, Italy (Industria 4.0, launched in 2016) and Portugal (Estrategia para Industria 4.0, launched in January 2017).

Summing up the debate on Industry 4.0 after one year of its launch, a key criticism looks at the excessive emphasis put on technological upgrade, while limited attention is devoted to factors enabling such upgrade, such as HR and industrial relations institutions.

Overall, in the three countries (Spain, Portugal, Italy) where the government adopted a specific strategy about Industry 4.0, this has been mainly done unilaterally or in partnership with private sector firms and employers' organisations. The involvement of trade unions has instead been rather limited, causing some discontent, especially where unions - as it occurred in Italy - have put aside their ideological differences to support a shared position. Specific policy or social partners' initiatives focused on the impact of automation on the service sector remain so far absent in the Southern European context.

1.2 *Emergence of new actors in service markets: the rise of the platform economy*

Unfortunately, there are no conclusive data on neither the size of the 'platform economy' in Southern European countries or on its impact on the profitability of established service activities. According to a recent study on the collaborative economy in Spain conducted by EY Foundation, the economic impact of activities associated with so-called 'sharing' platforms in Spain is estimated at around between 1 and 1.4% of GDP, and is expected to rise to 2 to 2.9% by 2025. Micro-tasking services are identified as those with the greatest growth potential.

Policy debates in Southern European countries surrounding the entry of new 'digital' players (i.e. platforms) in service markets have been mainly focused on defining appropriate regulatory models for the operation of these platforms, arising from concerns

around the issue of unfair competition for established service providers and the threat of social dumping.

Specifically, in Spain, in response to pressures by associations of taxi drivers, the government has adopted a fairly restrictive regulatory stance so far, introducing rules in 2015 (Real Decreto Ley 1057/2015) which regulated the private hire vehicles market limiting the operation of platforms such as Uber and Cabify by restricting the number of licenses and limiting their territorial portability.

Similar issues have arisen in Portugal and Italy. In Portugal, Uber started operating in 2014 and was subsequently subject to a ban by the Court of Lisbon in April 2015 after one of the main taxi drivers' associations, Antral, presented a claim of unfair competition against the platform. Also in Italy Uber has been banned in 2015, though it partly turned legal again in 2017, providing that drivers are listed in an apposite record, as done by the service Uber Black.

1.3 *Conclusion*

In Southern European countries, this is fostering debates around the impact of digitalisation and associated technological developments on service markets, mainly focused on two broad issues: Firstly, on the impact of the increased availability of ICT technology on the potential for innovation, market expansion and labour replacement in the service sector, and on the structural challenges arising from this. Secondly, on the impacts arising from the emergence of new players in the service market – especially platforms operating in the 'on demand' economy - on the structure and strategies of the established, 'traditional' service market.

The impact of digitalisation on service markets in Southern Europe has to be contextualised against a number of structural factors which set this cluster of countries apart from its North European or Anglo-Saxon counterparts. The high predominance of SMEs and the deep regional discrepancies in the level of development of digital infrastructure (e.g. with regard to access to broadband) means that the uptake of digital technologies amongst service sector firms and the incidence of innovation associated with digitalisation has so far been uneven, deeply differentiated between branches of the service sector and between large firms and SMEs and, on average, comparatively less advanced than in other clusters of European countries.

Public policy initiatives focused on managing the transition towards more automated production systems are present in all four countries (usually under the Industry 4.0 heading), but they have been so far disproportionately focused on the manufacturing sector, whilst limited attention has been paid to managing the technological transition in the service sector.

Finally, across the board, we note that, bar a few notable exceptions in the Italian and Spanish cases, the involvement of trade unions in national policy initiatives around the issues of digitalisation and automation in service markets and in the economy as a whole has so far remained limited. This is despite the common attempts on part of trade unions to influence the public debate through policy proposals and initiatives, in various cases formulated jointly by different union confederations. Social dialogue across all four countries have come under considerable strain during the crisis and post-crisis period, as governments have often deliberately attempted to reduce the influence of unions over the policy process.

2. Digitalisation and labour markets in services: main issues, challenges and responses

2.1 Automation and polarisation of services employment

McKinsey analysis (2017) estimates that Spain and Greece's automation potential (defined as the percentage of working time spent on potentially automatable activities) is 48% (equivalent to 8.7 million employees in Spain and to 2.1 million employees in Greece); this figure increases to 50% (11.8 million employees equivalent) for Italy. Data for Portugal is not available from the McKinsey study. According to McKinsey (2017), the branches of the service sector where automation could have the biggest impact in terms of substituting employment are the retail sector, where 50% of work activities in Spain and Italy and 48% in Greece have the potential to be automated (equivalent to 1.1 million FTE employees in Spain, 764.800 in Italy and 289.200 in Greece); accommodation and food services, where the percentage of automatable activities increases to 62% in Spain and Italy and to 58% in Greece (equivalent to 861.500, 764.800 and 210.900 FTE employees respectively); and health care and social assistance, where 39% of work activities in Spain and Italy and 37% in Greece can potentially be automated (equivalent to 553.800, 583.300 and 92.900 FTE employees respectively).

A 2016 OECD study by Arntz et al. (2016) uses instead a different methodology to estimate potential impacts of automation on employment, based on analysis of the risk of automatibility of different job tasks (which are derived from individual-level data from the OECD Survey of Adult Skills - PIAAC 2012). This study shows less dramatic results than the McKinsey one, with a lower share of workers being identified as being at high risk of automation (i.e. workers whose automatibility based on their job tasks is at least 70%). According to these results, 12% of jobs in the Spanish economy are potentially at risk of automation – putting Spain at the 3rd place in terms of exposure to the risks of automation amongst OECD countries; whilst this percentage decreases to 10% for Italy. The study, however, also points out that whilst employment effects may not be as negative as expected, it is mostly low skilled and low-income individuals who face the highest risk of being automatable.

Another major trend associated with the spreading of ICT technology is that of employment polarisation in labour markets. Employment polarisation refers to the progressive loss of jobs in sectors with average wages or mid-skill levels, coupled with the simultaneous growth of jobs at the extreme ends of the labour market, low-paid and low-skilled on one hand, and highly-paid, highly skilled jobs on the other. Unlike in manufacturing where low skilled jobs are progressively automated in the process of technological change, in the service sector the growth in highly knowledge-intensive skilled jobs arising from digitalisation is accompanied both by the destruction of mid-skilled routine-jobs (e.g. banking jobs), but also by ongoing growth in less knowledge-intensive but non-routine jobs which mainly require interpersonal skills (e.g. hospitality and care) and that cannot be automated. This contributes to an overall polarisation and 'hollowing out' of the employment structure. Recent research evidence shows that employment polarisation has affected the four Southern European countries to different extents over the last 20 years.

Spain suffered a very significant wave of job destruction during the crisis in the mid-pay, less knowledge-intensive segment of the service sector, which had instead grown significantly before the recession. The significant fall in low-to mid-paid jobs in services was largely attributable to the retail and wholesale sectors, and especially concentrated in occupations with high routine content.

Recent trends in collective bargaining in Southern Europe also raise questions about the ability of existing bargaining structures to govern effectively the transformation of services labour markets brought about by digitalisation and to deal with the effects of polarisation by preventing divergence in standards and working conditions. In countries such as Spain, Portugal and above all Greece, structural labour market reforms implemented during the crisis have pursued the decentralisation of collective bargaining at the company level and reduced collective bargaining coverage.

2.2 Skills shortages, skills utilisation and vocational training

As a consequence of digitalisation, digital technologies are being introduced into a growing number of workplaces in the service industry. For instance, almost 60% of employees in the banking sector report the introduction of new technologies into their workplaces during the 2011-2014 period.

All four Southern European countries are generally characterised by an above average incidence of low-skilledness amongst adults. In Spain, it is estimated that around 21% of the population has no digital skills; this proportion grows to over 30% for Portugal, Greece and Italy (with Italy ranking 3rd behind Bulgaria and Romania in the EU28 for the highest level of adult population with no digital skills).

The problems associated with skills mismatch and incidence of low-skills in Southern European economies arise from long-standing structural weaknesses in the system of Vocational Education and Training (VET); and are compounded by a problem of skills obsolescence that mainly affects the workforce over 50 and which arises from low incidence of life-long learning and on-the-job training.

It is thus not surprising that many initiatives by governments and social partners in recent years have been concentrated on reforming skills formation system and on addressing the digital skills divide and skills obsolescence arising from digitalisation.

2.2.1 Initiatives led by governments

In Spain, a far-reaching reform of the vocational training system for employment at the workplace was undertaken in 2015 (Law 30/2015). The reform introduced changes in the social partners' responsibilities for the management of the system of vocational training for employment, reducing them considerably. Under the previous system, social partner organisations used to be tasked with the direct management of training programmes and funds. Under the new system, instead, they are only involved in multi-year strategic planning of training initiatives and forecasting of skills needs in the economy by state authorities, whilst the role of private training providers in direct provision has been strengthened. With regard to the improvement of professional skills and employability of workers, and to increase the productivity and competitiveness of enterprises, the law establishes the goal of expanding the benefits of information and communications technologies to workers, promoting a reduction of the digital divide and ensuring accessibility of ICT technologies. The law also foresees the creation of joint sectoral structures, established through collective bargaining, to address sectoral training needs of the workforce. Due to the reduction of the role of social partners in VET provision, this reform has however been strongly criticised by the main social partner organisations, and was eventually implemented by the government unilaterally following a breakdown in social dialogue in 2015. The confederal union CCOO has strongly criticised the impact that the new law has had, arguing that the new model of provision has led to a decrease in the number of workers who can access workplace training. The Spanish case shows that addressing the reform of VET systems and finding the right balance in roles and responsibilities between the state and the social partners

can be a delicate and politically difficult process, and thus represent a key challenge for unions in Southern European countries whose VET systems are in need of reform.

In Italy the VET system has also been profoundly reformed in the recent years, given that its chronic weaknesses and scarce popularity have been considered a factors driving youth unemployment to a soaring level and determining skills mismatches in the Italian labour market. Reforms focused on two key instruments such as apprenticeship-type schemes and internships. An instrument which has instead been growing in the Italian context are internships, another VET-related instrument which is however much less regulated and structured than apprenticeships. Besides, interns are not subject to an employment contract, and thus prone to substantial abuses. As a matter of fact, data shows that internships, in all their forms, are massively growing, also thanks to the incentives provided by EU's Youth Guarantee scheme.

2.2.2 Initiatives led by social partners

In Spain, various tripartite dialogue tables between the government, the major trade union confederations and employers' organisations on the topic of employment creation, employment quality and vocational training have been started in 2016. Training and lifelong learning have been one of the topics at the centre of the social dialogue agenda. Moreover, in parallel with the government's 'Plan for digital inclusion and employability', in Spain we find positive examples of union initiatives in the area of skill development. The confederal union UGT, for instance, has launched in 2015 a comprehensive set of policy proposals aimed at addressing the digital divide in Spain (so-called 'Brecha digital'), focused both on the development of ICT-related skills and on promoting access to the internet.

In Portugal there are various initiatives – both government-led and run by the social partners – focused on encouraging investment in human capital. However, they mainly seem to be run by employers' confederations rather than trade unions.

In Italy, social partners have promoted the creation of so-called 'bilateral agencies' at the sectoral level. These bilateral agencies are organisms run cooperatively by unions and employers' associations, according to rules set by collective agreements and financed through small fees on wages.

2.3 *Precarious and atypical employment*

It is well-documented that some industries and occupational groups within the service sector have historically been characterised by an above average incidence of atypical employment, and below average levels of job quality (Eurofound 2016b). This is particularly true in Southern European countries, which have experienced over the last twenty years a marked growth in atypical employment (temporary, involuntary part-time, bogus self-employment) following the partial deregulation of this segment of the labour market through subsequent reforms.

Spain is characterised by extremely high levels of atypical employment, and this trend is not showing signs of change in the aftermath of the Great Recession. Indeed, in July 2017, 92% of new contracts signed were fixed-term and 37% were part time.

In Portugal, the main trade unions' demands to combat low quality employment have focused on increasing the minimum wage (due to be increased to €600 by 2020 according to the government's agenda).

In Italy, the use of fixed-term employment contracts by firms was deregulated and facilitated by a labour market reform in 2014. Fixed-term employment as a proportion of

total employment reached record levels in 2017, accounting for 12.5% of total employment.

Besides the long-standing issues associated with a high incidence of low employment quality and low pay in the service sector, digitalisation is also leading to the emergence of new forms of atypical employment associated with the availability of ICT technology.

3. Work organisation and company strategies

The increasing penetration of ICT in the services sector has a number of far-reaching implications for what concerns practices of work organisation within firms and companies' competitiveness and business strategies.

3.1 Impact of digitalisation on working conditions

Standardisation of work practices and the corresponding decrease in job autonomy is a major trend associated with services digitalisation.

Large warehouses and logistics companies have often been at the centre of attention for debates around standardisation and work intensification in service sector work, and Southern Europe is no exception. The e-commerce giant Amazon, although less diffused than in other parts of Europe, has experienced impressive rates of growth in the last few years and has come under the spotlight for the problematic working conditions at its distribution centres. Workers in 'picking' and 'packing' jobs in a big warehouse near Madrid described their jobs as 'a battle against the clock', where they are controlled by a device which shows them the location of items and indicates the time to collect the item, which can be as short as a few seconds. Near Milan, workers in the same jobs defined themselves as 'contemporary Charlie Chaplin, equipped with a scanner rather than a wrench'.

In fact, once workers' grievances become known and, given the brand visibility, capture the media's attention, here the established union confederations such as CGIL are able to gain a critical mass of members. As a result, bargaining tables are open where it is possible to discuss with the company headquarters better working conditions and the procedures to monitor their implementation. This dynamics has indeed resulted in an agreement signed in December 2016 by Amazon's parent companies (Amazon City Logistica Srl, Amazon Italia Transport Srl, created to handle a store and a secondary hub, respectively), possibly paving the way for a company agreement with Amazon itself, an outcome which would be a turning point for the company's tradition of unilateral industrial relations. To support this option, there is also Amazon's decision to apply the collective agreements valid for the commerce sector, which is relatively more robust than the one for logistics.

Also in Spain trade unions mobilised against Amazon's poor working conditions and pay. The union CC.OO. has been particularly active in this regard and has begun coordinating with trade union counter-parts in other European countries to demand Amazon improvements in its warehouses. In the region of Madrid, the employers' confederation Anged and the four major trade unions have reached a new regional sectoral agreement in May 2017 aimed at 'defending' large shopping centres from the threat of online retail, with the unions agreeing to facilitate the use of temporary contracts in exchange for moderate pay increases.

Beyond targeting specific companies, trade unions have addressed the issue of deteriorating working conditions in service sector jobs, both the Italian union CGIL and the Spanish union CC.OO have also launched - in winter 2015 and summer 2017 - high-

profile campaigns against the incidence of precarity in the service sector, called ‘The New Order’ and ‘Precarity War’, respectively.

3.2 New business models – platforms

The emergence of new business models operating through ‘platforms’ (discussed in section 2.3 above) is leading to the emergence of several issues relating both to employment quality and working conditions. The combination of piecework payment and algorithmic management leads to a process of work fragmentation and intensification, shifting the business risk of low demand completely onto the workers and increasing health and safety risks for the workers. Food delivery workers, for example, are pushed to increase their physical speed whilst cycling in order to carry out more deliveries. Furthermore, the application of algorithmic management methods and the use of GPS tracking to manage the flow of delivery jobs also allow the platform to monitor workers and use the data gathered in a non-transparent fashion for the purposes of performance management and workers’ surveillance.

In Spain, the legal status of self-employed workers is generally regulated by the ‘Statuto de Trabajo Autonomo’ (Statute of Autonomous Work). An intermediate category between self-employed and dependent workers also exists to categorise economically dependent autonomous workers (so-called TRADE, *Trabajadores Economicamente Dependientes*), i.e. self-employed workers who however receive at least 75% of their income from the same client. The TRADE category provides the self-employed with some characteristics of traditional self-employment (autonomy, entrepreneurial risk) and some of traditional employment (particularly in matters of social protection and taxation).

In Italy, similar debates regarding the regulation of platform work have been triggered by the protests of riders working for the food delivery platform Foodora in Turin in October 2016. The workers contested their contractual classification as autonomous contractors; the piecework payment system adopted by the firm; and the unilateral control exercised by the firm on the riders’ working time.

The position of Italian trade unions on this issue is instead mainly oriented towards pursuing a solution through collective bargaining channels, rather than introducing new legislative instruments to regulate gig work as such. This would however require an adaptation of existing sectoral collective bargaining agreements to cover the different kinds of app-based gig work in the sector of reference, or the creation of new, ad hoc agreements to cover the specificities of app-based work, with a number of ambiguities that need to be solved.

These attempts to unionise and build up new representative structures for gig workers, freelancers and other service sector workers located at the frontline of the digitalisation transformation testify to the present efforts of Southern European trade unions as actors to adapt to emerging challenges. However, their reach so far remains still limited, and their capacity varies according to national contexts.

3.3 Conclusions

Digitalisation has multiform implications for working conditions and company practices in the service sector. Issues of standardisation, work intensification and workers’ monitoring and surveillance enabled by digital technologies are affecting an increasing number of workplaces in various branches of the ‘conventional’ service sector – primarily in retail and logistics, but not only. Simply put, in the words of the General Secretary of CGIL, the largest Italian union, ‘it’s necessary to negotiate the algorithm’. This

move, as we have briefly illustrated, is requiring considerable renewal of strategies of intervention on part of unions, with an adaptation of old instruments and the introduction of new ones.

It remains thus necessary for unions to develop new strategies of recruitment and union action, possibly embracing digital tools more actively digital tools, to reach workers in these emerging sectors – although encouraging examples in this respect are starting to emerge. On top of this, the main dilemma for established unions is whether to pursue a strategy that seeks to reconfigure these new platform-based jobs as proper ‘dependent employment relationships’, thus regulated through labour law and sectoral collective agreements.

4. Overall conclusions

Our findings, mapping out the impact of digitalisation on industrial relations in Southern Europe, are divided in three sections. At the macro level, looking at services markets’ developments in general, we find that bar a few exceptions, the involvement of trade unions in national policy initiatives related to digitalisation, such as ‘Digital Agendas’ and ‘Industry 4.0’ strategies, has so far remained fairly limited. This is despite noteworthy attempts on part of unions to influence the public debate on digitalisation and ‘the future of work’ through policy proposals and initiatives. On issues relating to the regulatory models for new digital players (e.g. platforms), the interventions of mainstream trade unions in the public policy debate have also been limited so far, as the formulation of coherent regulatory proposals is still ongoing for the majority of confederations. At the meso level of labour markets in services, there are instead more signs of pro-active union adaptation, where unions, especially in Italy and Spain, have been taking up issues and demands relating to digitalisation (e.g. individual right to training and acquisition of digital skills) as central parts of their collective bargaining and campaigning platforms. However, the extent to which these collective bargaining strategies are sufficient in countering the polarisation trends associated with digitalisation is debatable. Finally, at the workplace level we observe emerging and deepening disparities between sectors with regards to unions’ capacity to intervene to govern the ongoing workplace transformations arising from digitalisation; and considerable difficulties in building up power resources and representative capacities in the emerging ‘platform economy’ segment of the economy.

Overall, we find that unions’ strategies and demands so far have been primarily focused on arguing for an extension of traditional forms of protection to deal with the disruptive effects of digitalisation. However, this has been coupled over the last years with some mild innovation in unions’ agenda, especially in Italy and Spain, where unions are possibly driven by a desire to re-build their strategic power resources and ‘update’ their image after having been weakened and delegitimised during the crisis period.