# Shaping Industrial Relations in a Digitalising Services Industry - Challenges and Opportunities for Social Partners

**First Workshop on "Services Markets" (Brussels, October 19, 2017)**

Authors: Ursula Holtgrewe, Stefano Gasparri, Anna Ilsøe, Vassil Kirov, Monique Ramioul, Anita Sharma, Arianna Tassinari, Yennef Vereycken

A joint project by:

ZENTRUM FÜR SOZIALE INNOVATION
CENTRE FOR SOCIAL INNOVATION

With the financial support of the European Commission

Dieses Projekt ist von der EU-Kommission gefördert
This project is being promoted by the EC Commission
Ce projet est cofinancé par la Commission européenne
Progetto sovvenzionato dalla Commissione Europea

Reference number: VS20160357

ZSI-Zentrum für Soziale Innovation
Linke Wienzeile 246, A-1150 Wien
ZVR: 757405110

Tel.: +43 1 495 04 42
Fax: +43 1 495 04 42 DW: 40

e-mail: institut@zsi.at
http://www.zsi.at

Bankverbindung: BankAustria Creditanstalt
BLZ 12000, Kto. Nr. 684 137 409
IBAN: AT69 1200 0006 8413 7409 BIC: BKAUATWW

Content

# 1 Introduction

The UNI Europa project "Shaping Industrial Relations in a Digitalising Services Industry - Challenges and Opportunities for Social Partners", in cooperation with "ZSI – Zentrum für Soziale Innovation" and promoted by the European Commission, aims to identify and analyse change factors and explore new approaches for social partners on the challenges of maintaining effective industrial relations systems in a digitalising services industry. The project strives to provide policy advice for trade unions, social partners and policymakers on necessary adaptations of institutional frameworks for industrial relations, collective bargaining, social dialogue and capacity building for social partners. Challenges and opportunities are identified and analysed in particular with regard to workers' representation at company level and collective bargaining as well as the work and organisation of trade unions in general.

Across the project, we are dividing the investigation into three aspects of services that are clearly interrelated.

- Under the heading of "Service markets" we look at changes in service production and delivery through digitalisation (for example, online services and self-service) and also on the impact of these changes on customers and society at large. It is one of the dimensions where rapid changes, disruptive innovations (for example platforms) need to be addressed. Here, we also address the status of services in "industrial" or economic policy in the context of your respective sector and country.
- "Service labour markets" addresses the development of service jobs, their quality and quantity. We focus on jobs with intermediate skill levels, and will also address atypical and precarious employment (including self-employment) in your sector/country, the development of skills and re-skilling and policies of addressing them.
- "Company strategies and work organisation" looks at the company level and your union's information and experience with companies in your sector/country: We will address trans-nationalisation of service companies at large, outsourcing and offshoring, working conditions and ways of influencing them, interest representation and participation.

These aspects are pursued in three workshops involving trade unionists, researchers and representatives of international organisations from October 2017 to January 2018. Results of research and workshops will be integrated in two reflection workshops in 2018.

The research conducted in the project consists of three work packages:

- A literature review updating knowledge gathered in the existing UNI Europa report on service research (FORBA study) and identifying a pool of academic experts with whom to discuss the subjects of the project;
- A series of expert interviews with ca. 40 trade union and employer experts exploring national and sectoral experiences and policies;
- The preparation of five regional research reports on service markets, service labour markets and company strategies and work organisation.

The knowledge gathered through this research effort is fed into the collaborative effort of UNI and its affiliate unions, to collect and analyse insight and engage trade unionists in an ongoing exchange over questions that we think are vital for trade unions in Europe. The aim is to jointly develop strategies and actions that are based on experience and evidence of both unionists and academics.

This report gathers the insights of the regional reports and the first round of interviews with union experts discussing the changes of service markets and policy initiatives regarding digitalisation.

# 2 Service markets and policies in Europe: regional findings and insights from expert interviews – Executive Summary

## 2.1 *European service sectors*

Service markets and labour markets in Europe have been expanding in the last decades. Across countries, in between 69% and 79% of GDP is created in services and rates of employments are slightly higher. In the Nordic countries employment growth has been concentrated in services, and the service sector in the UK has led economic recovery after the crisis. However, service sector expansion may also represent a downsizing of other sectors, such as manufacturing or construction, in the crisis as well as the sector's own economic power.

Behind expanding service sectors, European countries and regions have distinct profiles of services: reports from Southern Europe (chapter XX) and Belgium (chapter XX) emphasise the predominance of small and medium businesses in many service industries. In Central and Eastern Europe, much of service expansion has been driven by foreign direct investment (FDI), as well as the integration of ICT, business services and customer service functions into global value chains. Conversely, the Nordic countries have both Nordic and foreign multinationals in the services, and the UK's financial sector dominates the country's entire service sector. Hence, the country aims for global leadership in the digital sector in general, and in financial service innovation in particular (chapter 7).

## 2.2 *Digitalisation and trade unions' overall views*

As services are already shaped by digitalisation, we find similar national, regional and sectoral disparities with regard to digital infrastructures and their uses. The Nordic countries consistently take the lead in various digitalisation indexes (see figure XX), and in the UK, London emerges as a global hub for Fintech start-ups. However, the Spanish tourism sector (and ICT and Finance in Spain) also rank highly with regard to digital readiness. Cities such as Barcelona, Milan and Torino figure as "smart cities" with regard to both public- and private sector digital innovation. Southern and Eastern European countries at large are found at the lower end of the various digitalisation indexes. In CEE, the integration of ICT and business services into global and European value chains does not appear to spill over to the countries' general ICT infrastructure and use (with the exception of Estonia, chapter 4).

Opinions of trade unionists and experts vary with regard to the amount of actual and ongoing disruption as opposed to more incremental developments in technology. Slow developments that eventually reach a "tipping point" of disruptive change are also a possibility. There is a wide range of positions between optimism and scepticism towards unions' and societies' capabilities to "shape" digital technologies ("Gestaltbarkeit"). "Conditions for the shaping of technology are getting gradually worse" as digitalisation continues, says a long-term consultant of ver.di, whereas Austrian GPA-DJP's experts insist on the union's aspiration to positively co-shape digital developments – "precarisation of work is not a law of nature" (interview GPA-DJP).

At this stage of the research, more optimistic positions are found and reported from the Nordic countries (chapter 5 and Söderqvist 2017) where digitalisation has advanced further and may have been "normalised" in both everyday life and social partnership. But interestingly not necessarily in the ICT sector. Financial services appear somewhat polarised. In Italy, the sector appears to have worked itself out of the logic of cost-cutting and rationalisation and is looking towards creating new businesses and integrating financial service value chain. In line with that the union, FABI, is confident of matching the speed of developments. In Austria, ongoing cost-cutting and downsizing in the sector leads to more defeatist views of works councillors in financial services, as GPA-djp experts report. Workers in services close to manufacturing or in

manufacturing itself see more opportunities for innovation and "production as a service". Hence at this point of the research, optimism and pessimism appear to result from the perception of functioning alliances around productivity and competitiveness, and the respective national and sectoral labour market situation (see the forthcoming report on service labour markets).

### 2.3 *Policy initiatives*

In all countries investigated we find government-led initiatives in favour of digitalisation that address innovation, digital infrastructures and also regulation. However, in Southern and Central and Eastern Europe these are led by the state mostly without involvement of the social partners; in the UK it is various councils and initiatives of policy and industry leaders, and only in the Nordic countries do we find a wider range of bi- or tripartite initiatives and discussions. Such initiatives address digitalisation at large, workplace safety, life-long learning, social security (also addressing self-employment), innovation and disruption, and regulation of the platform economy (chapter 5 and Ilsøe 2017). Unions in Italy, Portugal and Spain have challenged their exclusion and developed their own initiatives, frequently under headings such as "Labour 4.0", and often in collaboration among unions (chapter 3). In Croatia, social partners are discussing the matter but so far with very limited attention from the government. Skill initiatives, competence centres and "taxation of robots" play a part here. In central and Eastern Europe, initiatives mostly support investment in the ICT sector. Romania, for example, offers ICT sector companies reductions in social security contributions (interview HST Croatia).

### 2.4 *Sector-specific developments*

Both the union experts interviewed and the regional reports agree that digitalisation generally is likely to both further concentration within service sectors and to render competition more intense. As companies extend their activities across sectors, they face new entrants and/or integrate value and business chains, however it is unclear where power and hegemony in these integrated chains will concentrate. Shifts between sectors also present challenges for unions: "escape" from collective agreements, but also competition between unions over organisational domains, which are frequently balanced by increased collaboration.

The ICT sector is clearly central and tends to concentrate its activities in the emerging technologies such as Big Data, Cloud Computing, Security, the "Internet of Things" or the networking between applications, functions and companies in general (Daum, 2016). A union expert working with IBM sees the company aiming for cross-sectoral dominance through central technologies such as block chain or artificial intelligence ("Watson") as "services for anything" with regard to both transactions and knowledge. This would amount to a central position of key technology providers in many value chains that extend across sectors and functions: "why wouldn't Watson be able to handle project management" in the longer run? (Interview, ver.di). In addition, companies from other sectors such as banks apparently aim to emulate ICT companies' strategies (World Economic Forum 2017).

Postal services and also logistics are immediately affected: here, advanced robotics and automation are central. Logistics take over functions from both manufacturing (contract logistics) and commerce. For postal services, letter-writing is declining in the most digitised countries, but in Germany and Denmark it has been widely compensated by increases in parcel delivery due to e-commerce. Here, postal services also offer warehousing and fulfilment services and also shopping platforms to smaller retailers.

In finance, concentration is ongoing and the reduction of branches and general cost-cutting strategies are found in many countries, and smaller banks, savings banks or credit unions are coming under pressure. Italian banks appear to be branching out into adjacent sectors such as

insurance, tax advice or real estate, aiming to offer "a very integrated chain of business" (Interview, FABI). Banks increasingly collaborate with Fintech start-ups and invest in them to integrate their innovation. In Denmark, the financial services union Finansførbundet itself has created Copenhagen Fintech Lab in the union headquarter buildings, which offers office space for 100 Fintech entrepreneurs and an opportunity for the union to network and gain first-hand insight into emerging banking innovations. Italian banks also collaborate with large internet companies that offer payment services (such as Paypal or ApplePay) whereas German banks tend to be sceptical of such cooperation (Roth, Zanker, Martinetz, & Schnalzer, 2015).

E-commerce is shifting functions from retail to logistics and adding some new skills requirements with regard to online marketing and communication. Cross-border sales are a challenge to the national sectors and states, but increasingly national and even local "brick and mortar" retailers also offer online shops, multi-channel and "anywhere" shopping. Retailers increasingly explore hybrids of online and offline selling such as "click and collect" services; fashion platform Zalando's offers of personal fashion advice and delivery[1] to complement the company's multi-channel customer service. For unions, the challenge remains in adapting the reach of collective agreements and access to secure employment and "good work" to the emerging logistics and delivery functions, which are increasingly flexible and attuned to customer demand.

Media has been struggling with some disruption through digital platforms and distribution channels for a while, especially among younger audiences (chapter 7). In the public sector broadcasting, broadcasters' own digital activities are frequently limited. As for banks, collaboration or competition with distributors such as Amazon or Apple appears to be controversial, with varied patterns in varied sectors, but these exert considerable cost and competitive pressure.

### 2.5 *Platforms*

The disruptive potentials of platforms and their regulation are central issues in digitalisation debates. Actual crowd work platforms for remote professional services and micro-tasks appear to be used to a limited extent in Europe, currently generating between 0.4% (Belgium) and 1-1.4% (Spain) of GDP. Yet a significant percentage of (Western) European workers (some 10-15%, see chapters 5 and 7) appear to have tried out crowd working but most use it sporadically for extra income. For the lower-income countries of Central and Eastern Europe, no data is known but there are some national platforms identified (Eurofound 2015) and crowd workers from CEE appear to have presence on international platforms as well (chapter 4). In Spain, Belgium and the UK industry associations are emerging. While some national and European policy initiatives aim to address concerns over taxation and social security contributions of platforms, others aim to stimulate the sector. Belgium represents a striking example of policy-led liberalisation in favour of the "digital" sectors of the economy: earnings up to EUR 5,000 from non-professional work on certified platforms is only taxed at 10% (chapter 6). This decidedly favours platform work for "extra" money over regular and professional employment. In the UK, the Taylor report on new forms of working suggests a new working statute of a "dependent contractor" for platform workers (chapter 7) whereas unions tend to be in favour of more inclusive approaches.

[1] https://www.zalando.co.uk/overnightz/ last visited October 5, 2017.

## 2.6 *Customers*

Customer expectations and requirements continue to play a part in digitalising services. In fact, their use of smartphones and mobile internet is pivotal for online service delivery. Even in personal services, marketing, booking, information and reputation may increasingly involve platform-based services. Still, in Southern Europe, unionists observe an ongoing preference for face-to-face contact. In call- and service centres, for those interactions that are not covered by (online) self-service, the wish to “talk to a person” is not expected to disappear. This mostly applies where transactions and decisions are loaded with emotion and social relations. The FABI expert sees possibilities for alliances with customers where their interests in trustworthy and good-quality products and services can be aligned with those of workers. On the other hand, especially in the UK, policy initiatives around “Digital Inclusion” involving banks, IT companies, the NHS and charities aim to provide children as well as remote and vulnerable groups (such as the disabled, homeless or prisoners) the digital skills to better access digitalised services (chapter 7) and thus make further digitalisation easier.

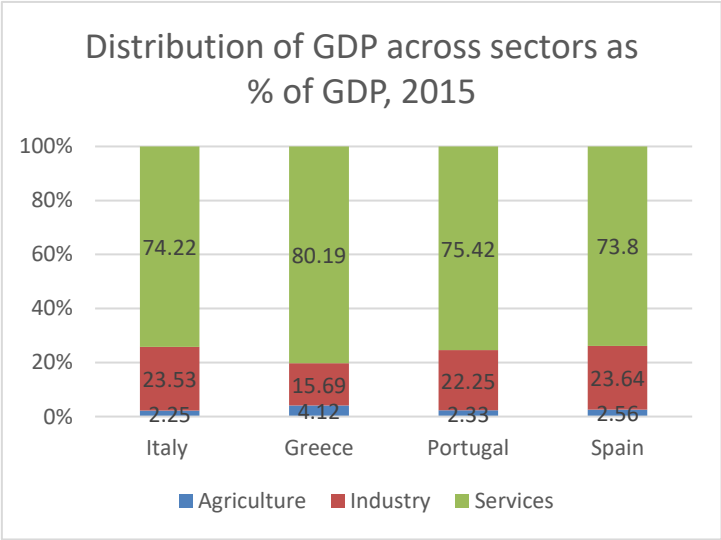
Either way, expanding self-service and further engaging customers in hybrid digital/analogue service delivery is ongoing and in line with the aims of various service companies to expand their chains of business. Their interest in control over multiple customer interfaces thus may limit outsourcing and offshoring of service functions in financial services, commerce and telecommunications. Control over the data that customers generate intentionally or unintentionally thus becomes valuable across companies’ and sectors’ traditional domains, and will be one of the sites of ongoing and emerging power struggles between companies, sectors and not least, civil society’s interests in privacy and civil rights.

# 3 Service Markets in Southern Europe (Stefano Gasparri and Arianna Tassinari, Warwick Business School)

## 3.1 *Background: Services and unions in Southern Europe*

The analysis of the process of digitalisation in the service sector in Southern Europe and its implications for employment relations and trade unions must be contextualised against the background of the broader economic structure of the countries under analysis. As Figure 1 shows, 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 (see fig. 2). 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.

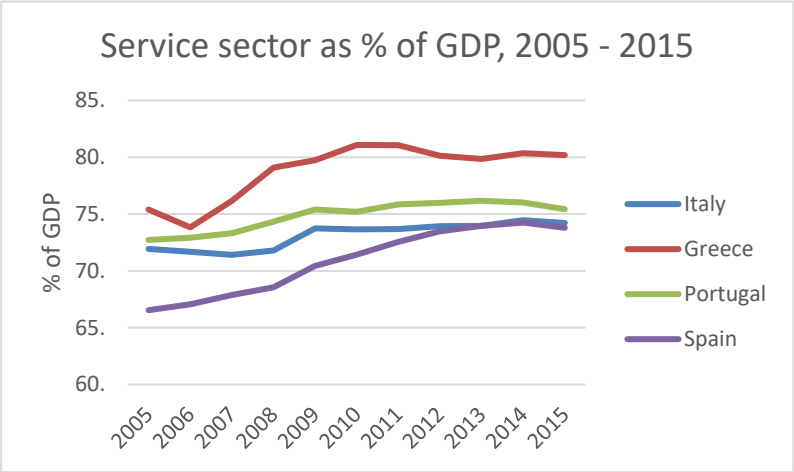
*Figure 1: Distribution of GDP across sectors as % of GDP, 2015*




*Source: World Bank, 2017*

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 (World Bank, 2017). A large portion of these workers is in Small and Medium-sized Enterprises (SMEs), 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 (Eurofound, 2016). In the context of Spain, for instance, a recent study by Siemens (2016) identifies, among the specific challenges associated with digitalisation, the limited penetration and usage of ICT technology in certain branches of the Spanish service sector, and amongst SMEs in particular, which make up 90% of Spanish firms and that tend to have below average levels of implementation of ICT technologies (INE 2016; cf. also Vodafone 2016). In this respect, 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.

*Figure 2: Service sector as % of GDP, 2005 - 2015*




*Source: World Bank, 2017*

The extent of unionisation in the service sector is another important background factor to consider the implications of digitalisation trends for industrial relations. Unfortunately, comparable data on the rate of unionisation in the service sector for the four countries under analysis are typically unavailable (e.g. from the ICTWSS database, Visser 2016). Data from national sources suggest that the rate of unionisation in the service sector varies quite considerably depending both on the country and on the specific branch of activity. In Italy, where the average unionisation rate is 31.6%, according to 2015 data from the Italian Statistical Agency (ISTAT, 2016, p. 160) 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 (Alós et al., 2015, p. 21). In Portugal, the average rate of unionisation is 18.48% (ICTWSS, 2016). In services, the latest available data (reported in Portugal and Vilares, 2013) show that unionisation varies considerably between branches: 4.65% in administrative activities, 8.01% in hospitality, 15.65% in ICT, 31.3% in transports, reaching a peak to 63.8% in the financial and insurance services sector. Finally, in Greece, the unionisation rate is at 21.5% in 2013 (OECD Stat), a data which requires some qualifications. First, it is in constant decline since 1980 (39%), also because of the lower presence of unions in service sector. Second, the economic and financial crisis brought a loss of legitimacy of traditional mainstream confederations (GSEE, ADEDY, both with political ties to the main centre-left party PASOK) and the emergence of radical grassroots organisations, focused on the community, industry or company level, often for precarious workers in the service sector (free-lance technicians, cleaners, waiters), but these organisations lack coordination and influence over the policy-making (Kretsos, 2015).

This data on unionisation in Southern Europe shows a differentiated picture according to the country and to specific service sector branch. At the same time, they confirm insights from the extant literature about some of the challenges typically associated with unionisation in the service sector, such as uneven union density, difficulties in establishing trade union density due to fragmentation and spatial distribution of employment, and uneven patterns of industrial relations between new and more established service sectors. Emerging challenges for unionisation and

collective representation of workers in new branches of the service market facilitated by digitalisation (platforms, online labour markets, crowd work, etc.) will be explored further in the report.

If the high diffusion of SMEs seems to slow down the digitalisation of services markets in all the four Southern European countries, and the relatively weaker trade unions in the service sector seem to challenge their role in the digitalisation process in said countries, there are several other factors which account for differences between the countries, beginning with their particular combination of types of services, that is a balance between more knowledge-intensive vs lower-skilled services, immaterial vs location-bound services, and business-to-consumer/personal vs business-to-business services (see the DESI index for some insights and progresses of each country)[2]. Here we mention only two illustrative examples of such differences, evaluating the challenges and opportunities disclosed by digitalisation and its impact on industrial relations.

a) Some sub-sectors within service markets are more digitalised than others. In the Spanish economy, for instance, digitalisation shows a considerable gap in several branches of the service sector (especially health and transport) between the potential opportunities of growth offered by digital transformation and the level of digital maturity of firms (Siemens 2016, p. 8). Other service sectors such as ICT, Tourism and Financial services are identified instead as leaders in 'digital maturity', leading the way in taking advantage of the possibilities for the reconfiguration in their business models offered by e-commerce, social networks, big data and automation. Given the characteristics of the four countries under examination, the business potential of digitalisation on Tourism seems to deserve a special attention, as the new concept of 'smart tourism', of which the literature identifies Barcelona as a best-practice (Boes et al., 2016).

b) 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' (p. 24), 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 (p. 38-40).

Overall, the high incidence of service sector employment in Southern European economies means that the issue of employment and job quality in the sector assumes tantamount importance – and confronting potential issues and challenges associated with structural changes in the sector, such as digitalisation, is an issue of high priority. These few background notes also suggest that the impact of digitalisation on service markets in Southern Europe may be significantly differentiated according to the sector of operation and company size, as well as the territorial area. This rather heterogeneous picture corresponds to significant additional challenges for trade unions willing to contribute to and exert an influence over the process of penetration of ICT technologies and correspondent enabling competences in this context.

[2] https://ec.europa.eu/digital-single-market/en/desi

## 3.2 *Policy initiatives in South European Services*

### *3.2.1* 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. Being reluctant digital users contributes to explain the low ranking (3rd out of 4) of these countries in terms of innovation, all of them being considered as 'moderate innovators'[3]. This concern is reflected in the kind of policy initiatives implemented by governments on this topic, which tend to be focused on the promotion of access to digital technologies for firms and enterprises and on the strengthening of infrastructures to strengthen competitiveness and facilitate digital inclusion. In order to address the challenges associated with limited penetration of digitalisation amongst certain sectors of the economy, and especially SMEs, various governments have put in place initiatives aimed at strengthening the infrastructures that can facilitate access to and use of digital technologies on part of firms and workers.

In Spain, a high-profile government initiative, the so-called 'Agenda Digital por España 2015-2020'[4] (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 internationalisation 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 Digitalisation of Spanish Society ('Pacto de Estado por la digitalización de la sociedad española')[5]. 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[6]. These developments signal that the topic of digitalisation of the economy is slowly making its way on the agenda of national tripartite social dialogue, although the debate appears to currently be focused in very general terms rather than on specific sectors.

---

3 http://ec.europa.eu/growth/industry/innovation/facts-figures/regional_en

4 http://www.agendadigital.gob.es/agenda-digital/Paginas/agenda-digital.aspx

5 http://ccoo.es//4560efb26f3fd186a4f662aae1d141cf000001.pdf

6 http://ccoo.es/noticia:238245--CCOO_se_reune_con_el_ministro_de_Energia_Turismo_y_Agenda_Digital_para_tratar_el_futuro_de_la_digitalizacion_en_Espana

A similar initiative is in place in Portugal, where Agenda Portugal Digital[7] was first launched by the national government in 2012 and then renewed in 2015. The programme foresees six areas of intervention to encourage the digitalisation of the Portuguese economy, which include improving access to broadband and the digital market; improving digital literacy, qualification and inclusion; investing in R&D and innovation in digital technologies; and favouring the use of ICT to combat fraud, tax avoidance and informal employment. More recently, in February 2017, the Portuguese government has launched another comprehensive programme, the 'Programa Interface', aimed at encouraging innovation and technological development in the Portuguese economy[8] through knowledge-transfer between universities and firms and support to investment in R&D. 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.

Also 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[9]. 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 also 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, both for the maximum utilisation of private resources (both from within and from abroad) as well as for reasons not strictly related to returns of investments, that is to demonstrate the public support of areas and markets so far under-resourced and where the extension of next-broadband infrastructure would not arrive otherwise[10]. Despite these efforts, as noted in Europe's Digital Progress Report (EDPR) 2016, Greece has made very little steps forward in this regard. In fact, it remains at the bottom of EU countries - 26th out of the 28 in DESI index 2016 - and, although some improvements in the human capital dimension, the levels of digital skills possessed by citizens remain low. Moreover, the prospects of a Greek recovery are undermined by the severe emigration of those people already digitalised or with the right competence to make the most of the digitalisation - that is intelligent, well-educated young individuals. However, further actions toward the digitalisation of Greek economy have been taken, especially as regards public service and e-Government[11].

7 http://www.portugaldigital.pt/areas-de-intervencao/.

8 http://www.programainterface.pt/pt

9 http://www.agid.gov.it/agenda-digitale/agenda-digitale-italiana

10 https://ec.europa.eu/digital-single-market/en/country-information-greece

11 On the 21st of September, 2017, after meeting the EU Commissioner for Digital Economy and Society, the Secretary General of Digital Policy, Stelios Ralis, stated that 'Today is a milestone for the public sector, as we take the first and essential step for its digitalization' (see http://mindigital.gr).

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 (an issue which will be explored in greater depth in the following section on service labour markets). The potential of digitalisation to increase transparency and traceability and thus decrease the incidence of the informal underground economy is also a common trend in Southern European countries, which may have positive side-effects from the perspective of industrial relations.

### *3.2.2* Policy initiatives: Automation and Industry 4.0

In various countries under analysis there has been recent public debate on the potential impact of automation arising from digitalisation on employment and on the structure of domestic markets (which is analysed in greater depth in chapter 4). 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)[12], Italy (Industria 4.0, launched in 2016) and Portugal (Estrategia para Industria 4.0, launched in January 2017)[13]. These initiatives are similar to each other as they are aimed at supporting the transition of the respective industrial sector towards the so-called 'fourth industrial revolution', based around the development of 'smart systems' for production and on an increased reliance on digital technology and automated systems. However, in all countries, the Industry 4.0 initiatives have been, unsurprisingly, overtly focused on manufacturing rather than on the service sector.

In Portugal, the strategy includes specific initiative to launch digitalisation projects in SMEs (Vale Industria 4.0). Besides, Fiequimetal, the metalworkers' federation of the largest confederation, CGTP-IN, has started organising a cycle of initiatives to discuss the impact of the Industry 4.0 strategy from the perspective of labour. Fiequimetal has lamented the lack of trade unions' involvement in the working groups dealing with the implementation of Industria 4.0 and the over-representation of large multinational firms in the working groups tasked with the implementation of the strategy.

Likewise, in Spain, the second largest confederal union UGT has taken initiatives to demand greater involvement in the development of the 'Industria 4.0' strategy, and has started organising initiatives to discuss the risks, challenges and opportunities associated with it in order to shape a 'just transition'[14]. In the context of public policy debates on a pension reform and the sustainability of the Spanish social security system, UGT advanced in October 2016 a policy proposal to introduce taxation on robots in order to fund social security and address some of the risks associated with the employment impact of automation in production processes[15].

In Italy, the government set up the plan called 'Piano Nazionale Industria 4.0 2017-2020' in September 2016. The move has been unilateral, but the National Steering Committee behind the

---

12 http://www.industriaconectada40.gob.es/Paginas/index.aspx

13 http://www.portugal.gov.pt/pt/ministerios/meco/noticias/20170130-mecon-industria-4.aspx

14 http://www.ugt-fica.org/41-ultimas-noticias/1037-la-jornada-sobre-la-industria-4-0-organizada-por-ugt-fica-concluye-con-un-llamamiento-a-una-transicion-socialmente-justa

15 https://economia.elpais.com/economia/2016/12/14/actualidad/1481742348_134557.html

plan includes several stakeholders as well as the three main union confederations (CGIL, CISL and UIL). The three key targets of the plan are innovative investments, up-skilling and enabling infrastructures, as well as the 2017 Budget Law (232/2016) supported its fulfilment through four types of fiscal incentives (hyper-depreciation, super-depreciation, tax credit and supportive finance)[16]. On their side, unions reacted by promoting their common vision of Industry 4.0 in March 2017 and then, separately, their own specific plan. For instance, CGIL launched the plan 'Piano Lavoro 4.0' (May 2017) and a platform 'Idea diffusa' (June 2017)[17]. The metal federation of CISL, FIM-CISL, instead conducted a research on the industrial relations implications of Industry 4.0, underlining the critical factors such as applied research networks, individualised training programs and apprenticeships, concluding with a list of proposals for unions willing to meet these challenges and become 'smart unions' (FIM-CISL 2015). 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 (Prodi et al. 2016). This led social partners to call for the creation of 'competence centres', that is excellent training centres fit to the learning demands arising from innovative machineries.

Greece is catching up with these debates about Industry 4.0. Some promising initiatives reveal connections and partnership between university and companies, as the ones by the Laboratory for Manufacturing Systems and Automation (LMS) of University of Patras (www.lms.mech.upatras.gr). On one side, the focus is on how to apply tools, algorithms and platforms for supporting Greek companies, especially in Consumer Good, Robotics and Mold-making sectors. On the other, this approach acknowledges the fact that a fully-fledged digitalisation requires also general reforms of the education system, because Industry 4.0 goes hand in hand with Education 4.0. The impression drawn from a review of the few existing documents on the subject is of a relatively softened and understated discourse about the potential of digitalisation for what it promises in terms of economic and social development. In this regards, the Greek government seems still to be prioritizing how to tackle deep social issues such as high unemployment and poverty.

Overall, in the three countries (Spain, Portugal, and 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.

16 http://www.sviluppoeconomico.gov.it/images/stories/documenti/2017_01_16-Industria_40_English.pdf

17 http://www.cgil.it/idea-diffusa-mensile/

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

The increased availability of internet technology and connectivity has led over the last ten years to the emergence of another major disruptive trend in service markets, i.e. the emergence of new players – often grouped under the general heading of 'platforms' – which have developed new models of service delivery in sectors as diverse as transport, logistics and business services. Under the heading of the 'platform economy' lies a heterogeneous multitude of different service activities with different configurations of relationships between users, businesses and service providers (e.g. P2P, P2B, B2C, B2B). Scholars in the field have thus far generated several typologies in order to differentiate among them (for a recent review see Kilhoffer et al, 2017). That said, the first and most effective differentiation is that between 'crowd work' and 'gig work' (De Stefano, 2016; Schmidt, 2017). Crowd work refers to work arrangements where job tasks are carried out solely online, through platforms that connect an indefinite number of organisations and workers through the internet; whilst gig work refers to location-specific traditional work activities (e.g. transport, cleaning and delivery) that are channelled through platform-managed apps which intervene in setting quality standards and in the selection and management of the workforce. A related trend is the emergence of commercial platforms that use digital technology and act as intermediaries to put users exchanging goods and services in touch with each other. These exchanges are monetised but based on a peer-to-peer exchange relationship rather than a traditional provider-consumer relationship. It is clear that the potential impacts of the emergence of different kinds of platforms on established service markets are considerable. Many of these platforms act as direct competitors to established service providers operating through a traditional model, and they are usually able to offer cheaper services by relying on highly atypical employment arrangements or considerably reducing the costs of service provision by getting users or crowd workers to use their own assets (i.e. bike, cars, apartments and tools) to provide services.

Unfortunately, there are no conclusive data on neither the size of the 'platform economy' in Southern European countries nor 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 (EY Foundation, 2017, cited in Govup, 2017, p. 3). Many of the major players operating in the platform economy in Spain are organised in the association SharingEspaña, promoted by Adigital (Asociación Española de la Economia Digital), and their publications provide evidence of the large and diversified number of platforms operating in this sector in Spain (cf. Adigital/SharingEspaña, 2017). It is interesting to note that these firms describe themselves as part of the so-called 'sharing economy', even though the vast majority are actually large commercial platforms such as Airbnb and Uber operating on a for-profit basis. The available evidence on the size of the platform economy in Italy and Portugal is also only anecdotal, but the progressive expansion of operations of large platforms – such as in transport (e.g. Cabify, Uber and Lyft) or in accommodation (Airbnb above all) has provoked various debates in public policy about the appropriate model of regulation.

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. Indeed, the rise of the platform economy represents a considerable disruption for the established framework of industrial relations across all countries. As Kilhoffer et al. (2017) point out, the operating model of

platforms disrupts or conceals the traditional employee-employer relationship and makes existing models of collective representation and bargaining difficult to apply. The risk of undercutting of working conditions, unfair competition and social dumping arising from the operation of these platforms in established markets are also well documented, and have entered national debates in all the four countries under consideration, as we will see below.

In all Southern Europe, the public policy debate has centred around the appropriate model of regulation of transport platforms such as Uber and Cabify, or of ridesharing platforms such as Blablacar, and the alleged risks of unfair competition these imply for established operators in the transport sector, especially the private hire vehicles sector in the case of the first and the bus transport sector in the second. 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.[18] This law was appealed against in the Supreme Court by the National Commission for Markets and Competence (CNMC), a regulatory body which has been at the forefront of the push for greater liberalisation of the service market in the transport sector. However, in September 2017 the Spanish government has restated its intention of regulating the private hire vehicles sector to protect the taxi sector and limit speculation on PHV licenses through platforms like Uber and Cabify.[19]

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[20]. In both cases, the issue is not fully settled and the governments are called to approve a specific law on the matter. In the meantime, protests from taxi drivers around Uber's continued - though partial - operation in the countries have continued, and the issue remains insofar unresolved.

Overall, these protests and conflicts around the regulation of operations of new players in established service markets are indicative of some of the tensions that developments associated with digitalisation in the service sector can bring about.

### 3.4 *Cross-border trading of services and e-commerce*

The increased availability of digital technology for the management of supply chains has led to two distinct but related developments in the service sector, namely growth of cross-border trading of services and of e-commerce and online sales. As for the former, the most relevant issue consists of the EU proposal of the introduction of an e-card for services (link). This proposal has been advanced by the European Commission in January 2017 and would affect mostly sectors as construction, insurance, cleaning, and engineers. Trade unions in Southern Europe have not reacted so promptly to it and, despite a few sporadic interventions by union functionaries on social media, their official position is not fully clear yet. Apart from this, there are many other policy areas

18 http://www.elmundo.es/economia/empresas/2017/07/11/5964b5c8ca4741851b8b45d1.html

19 https://economia.elpais.com/economia/2017/09/01/actualidad/1504285143_430467.html

20 http://www.ilsole24ore.com/art/notizie/2017-04-14/uber-non-sara-piu-illegale-lunedi-tribunale-sospende-stop-151412.shtml?uuid=AEor4a5

affecting how services are traded among countries, beginning with competition law and rules about contracting out.

Regarding e-commerce and online sales, the available evidence proves that the increased availability of ICT technology and internet connectivity is shaping practices in the established tradable service sector in Southern European economies, especially for what concerns increased digital access to clients, leading towards a greater incidence of e-commerce and online sales. For instance, in the Spanish case, survey data from the National Statistical Institute (INE 2017)[21] show that, in 2016/17, 24,5% of Spanish service sector businesses with more than 10 employees made sales through e-commerce, against an average of 20% for the overall economy. However, this figure is reduced to only 4.45% for firms with less than 10 employees. The incidence of e-commerce seems nonetheless to be growing amongst SMEs as well: a recent Spanish study by business consultancy SAGE, based on a survey of 1,800 Spanish SMEs, found that the volume on online retail sales made by SMEs increased by 29.2% between 2015 and 2016 (SAGE, 2016), and that 8% of SMEs had realised sales online in 2016. It is clear however that the potential for growth in this area has not fully realised its potential yet. The impact of digitalisation in this respect appears however to be differentiated according to firm size, and to be less advanced in SMEs, which make up the overwhelming majority of service sector firms in the countries under question.

The implications for industrial relations arising from the growth of e-commerce and online sales are not clear-cut. On one hand, given the low incidence of unionisation in SMEs, the emergence of larger semi-monopolistic players in the e-commerce sector may provide new opportunities for trade union intervention and unionisation in the sector. However, this trend may also be associated with challenges. The growth of online sales and e-commerce could over time lead to a decline in face-to-face retail employment, thus raising issues associated with downsizing of the retail workforce. It may also increase the importance on services associated with online sales, such as logistics and just-in-time delivery, leading to the possible fragmentation of supply and delivery chains and increasing trends of outsourcing and automation which could pose challenges for unionisation and collective bargaining in the sector; as well as leading to an intensification of working conditions for workers in the sector.

### 3.5 *Conclusion*

The digital transformation is seen as the biggest challenge for the competitiveness of the European economy in the medium and long run. 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

[21] http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176743&menu=ultiDatos&idp=1254735576799

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. It is therefore not surprising that a key focus of government policy initiatives, such as the various 'Digital Agendas' launched across all four countries, has been on favour of the uptake of ICT technology by firms and addressing some of the structural challenges that may limit the innovation potential associated with digitalisation.

Despite these structural distinctive factors, there is evidence to suggest that many of the same macro-trends affecting service markets in Europe as a whole are relevant in the Southern European context as well. As we have seen, there are different aspects of the broad 'digitalisation' trend that may have an impact on the established service markets in Southern Europe.

The available evidence regarding the potential impact of automation and availability of labour-replacing technologies on South European service markets is not conclusive, but suggests that the labour-replacing effects arising from technological developments in various branches of the service sector could be considerable, especially for low-skilled workers in low-pay sectors. 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. There is however evidence of some new cross-sectoral policy initiatives aimed at tackling the digital divide from a skills perspective, promoting training and re-qualification to increase digital employability.

The increasing presence of new digital players, such as platforms, has started to disrupt established service markets and led to heated national policy debates around the appropriate models of regulation, in order to ensure fair competition and avoid undercutting and social dumping vis-à-vis established service providers. However, the policy dilemmas around regulatory models are in most cases yet to be resolved. The industrial relations implications arising from the increased incidence of cross-border trading in services and e-commerce are not clear yet, even in relation to controversial proposal by the EU such as the creation of a European Services e-Card.

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 (cf. Guardiancich and Molina, 2017), as governments have often deliberately attempted to reduce the influence of unions over the policy process. The development of structured tripartite social dialogue channels to manage the process of digitalisation and its multiform impacts in a negotiated manner is therefore still limited and hampered by political difficulties. Finding appropriate mechanisms to exercise voice in the public policy debate remains a common challenge to be addressed for industrial relation actors across all four countries.

# 4 Service Markets in CEE (Vassil Kirov, Bulgarian Academy of Sciences))

## 4.1 *Expansion of the services sector in CEE*

The Central and Eastern European countries (CEEC), most of them new member states of the European Union (EU), share a common socialist past and the present EU membership. But they also diverge in terms of previous historical developments (e.g. belonging to different empires, see Delteil and Kirov, 2016) and on a number of political, social and economic issues. In this perspective, according to many scholars it is difficult to identify common employment and IR regimes for the CEECs. Bohle and Greskovits (2012) distinguish different types of East-European capitalisms: 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). While the debates about the varieties of East European capitalism are beyond the objectives of this report, it is important to point out that several differences exist among those countries – e.g. in relation to their respective dependence on multinational companies (MNC), international organisations, degree of weakness of the institutions, more or less liberal policies, place and role of the informal economy and so on. In addition to those countries already in the EU, several Western Balkan states that are candidates or potential candidates for EU membership could be added to the Eastern regime (Macedonia, Serbia, Albania, Bosnia and Herzegovina and Montenegro).

The services 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 sectors, attracted FDI but also many local investors. In locally-bound low-wage services, such as cleaning, care, catering and so on, the role of internationalisation is limited and large MNCs are (still) present in a few countries and sectors (e.g. catering in Hungary, see Kirov, 2011 and Holtgrewe & Sardarvar, 2011).

Not surprisingly, the digitalisation of the 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[22]. The 2017 ranking shows that CEECs have the lowest results in terms of the overall index among all employment and IR regimes in Europe. Similar is the situation in terms of the indicator "Integration of digital technology". While businesses are the most advanced in Denmark, Ireland and Finland, they are the least digitally developed in Romania, Poland and Bulgaria. It appears that the integration of the CEECs into the value chains of business services and ICT has not necessarily spilled over into country-wide ICT advancement.

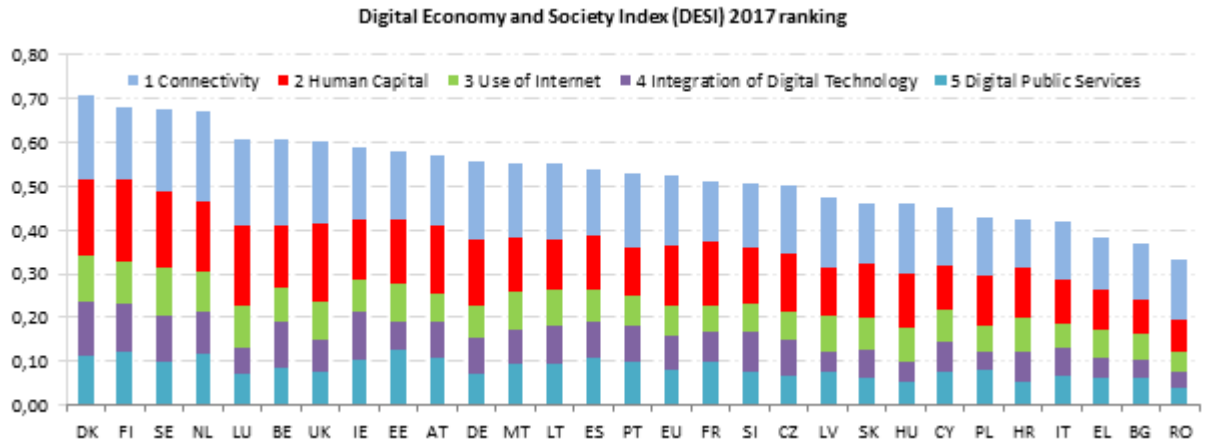
However, beyond the average data of the region, it is important to point out that some countries from the region have positioned themselves as leading e-nations (such is the case of Estonia[23]).

22 https://ec.europa.eu/digital-single-market/en/desi

23 See more at https://e-estonia.com/

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

*Figure 3: Digital Economy and Society Index (DESI) 2017 ranking*




Source: European Commission 2017[24]

Digitalisation of financial services is seen as one of the major challenges for the CEE banking sector[25] according to McKinsey analysts form the region:

Eastern European banks also have big technological opportunities, including the introduction of richer features for automated teller machines and point-of-sale devices, biometric identification, and mobile payments.

In other service sectors digitalisation and automation is lagging behind what could be observed in Western Europe (e.g. commerce and media).

## 4.2 *Specific service sectors*

The financial services in CEECs (and particularly banks and insurance companies) have been acquired by major players from Western Europe and other developed regions. Nowadays most of the banks and insurance companies belong to different banking groups from Germany, France, Italy, Austria and so on. There is a research stream focusing on the HRM and employment relations in those banks (Hunek and Geary, 2016, Kirov and Thill, 2015).

The ICT sector has had strong traditions already during state socialism in most of the CEECs. The post-socialist developments positioned the region as an important player within the global value chains (e.g. software). In addition, during the decade of the 2000 and afterwards CEECs have become major destinations for offshoring of business process outsourcing (BPO)26 and call

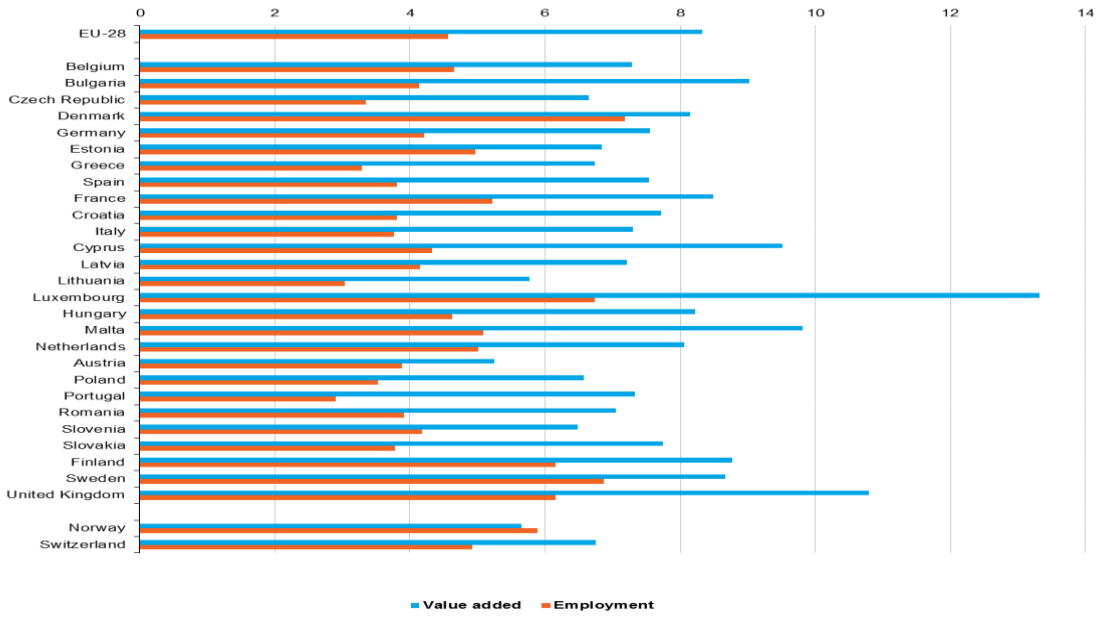
24 https://ec.europa.eu/digital-single-market/en/desi

25 What's ahead for banking in Eastern Europe, By Miklós Dietz, Ádám Homonnay, and Irene Shvakman, http://www.mckinsey.com/industries/financial-services/our-insights/whats-ahead-for-banking-in-eastern-europe

26 https://www.raconteur.net/business/the-most-attractive-european-countries-for-outsourcing

centres (Kirov and Mircheva, 2009). Sass and Fifekova (2011) concluded that the share of CEE countries in the global flows of this type of investments is still low, but the region shows a growing potential. Growth in those segments in the following years is spectacular, according to many observers[27]. The CEECs attractiveness for such services is based on a number of factors, like availability of skilled labour with strong language skills, low costs, favourable business and stable political environment, well-developed infrastructure and geographical and cultural proximity to Western Europe (Sass and Fifekova, 2011). In these sectors large international companies such as HP or IBM co-exist together with numerous local IT companies. The recent Eurostat data suggest that CEECs countries have employment and value added shares of ICT that are not very different from most of the Western European countries (see fig. 1). There are also studies suggesting that this growth is concentrated in a small number of large cities, as it is in the case of the Czech Republic (Ženka et al., 2017).

*Figure 4: Relative importance of Information and communication service statistics (NACE Section J)*




Source: Eurostat[28]

27 Employment in the business services sector in CEE systematically increases. During 2012 and 2013, the number of employees in service centres with foreign capital in CEE has increased nearly by 1/3, from 255,000 to 335,000 employees. Since the Q1, 2014 more than 40,000 new jobs have been added. In CEE, there are currently 1,000 service centres with foreign capital belonging to several hundred investors, including the best known global brands – see www.absl.cz/docs/CEE_report_final.pdf

28 http://ec.europa.eu/eurostat/statistics-explained/images/9/9b/Relative_importance_of_Information_and_communication_service_statistics_%28NACE_Section_J%29%2C_2013.png

The commerce sector is also well expanding, involving both large multinationals and small or medium-sized local companies. According to recent Eurofound studies (Adam, 2011), the commerce sector is experiencing rapid internationalization in the CEECs and most of the major West European retails chains are well established in the region (such as Tesco, Carrefour, Metro and so on). The media sector has attracted foreign investment, but still many local companies are leading the market (e.g. in Bulgaria and Hungary).

### 4.3 *Platform work*

Platform work is not unknown in CEECs, but for the moment there are no estimations of its size. The Eurofound study (Eurofound, 2015; Mandl and Curtarelli, 2017) of new forms of employment concludes that platform work is not much of a presence in Eastern Europe, compared to other employment and IR regimes. However, the same report suggests that "among the eastern European Member States, crowd employment platforms have been established in the Czech Republic, Latvia and Lithuania" (Eurofound, 2015: 108). Most of these platforms are very new (less than 5-6 years of existence). The Lithuanian platform Lingjob, for example, was established in 2013, Czech Topdesigner.cz - in 2012 and the Latvian Academy of Ideas in 2011 (Eurofound, 2015). However, analyses of cross-border contracts and workflows with regard to CEECs are currently missing.

But in addition to those national platforms, in CEECs there are numerous employees registered at the global platforms such as Upwork and so on. According to different sources, individuals from CEECs (e.g. Romania, Poland, Bulgaria, and Serbia) are among the most active users of crowd employment platforms[29]. Recent estimations suggest that, for example in Bulgaria, till June 2015 there were 19,610 registered profiles on platforms for distant work (Yordanova, 2015). Current research on the region has focused also on other platforms[30] for home services, shared travel and so on. Country research on platform work suggest that platform work for high qualified individuals is associated with better working conditions, in terms of wages, work-life balance, etc. (Yordanova & Kirov, 2017). A new doctoral research projects (Dobreva) is investigating the strategies and outcomes for female designers from Central and Eastern Europe, selling their products through Etsy (www.etsy.com). One of the hypotheses of this project is that at a difference of Western Europe, those self-employed designers could reach relatively sustainable incomes and work-life balance through platform sales.

---

29 See for example http://techlist.com/mturk/global-mturk-worker-map.php; https://www.elance.com/trends/talent-available/geo#GeoRanking; https://www.elance.com/trends/talent-available/geo#GeoRanking.

30 See http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL_IDA(2016)587316_EN.pdf

# 5 Service Markets in the Nordic countries (Anna Ilsøe, FAOS)

## 5.1 *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 (Ilsøe and Madsen 2017). However, the secondary sector still plays a significant role in a number of Nordic countries - among others Sweden - and the primary sector still plays an important role in for instance Norway.

The Nordic countries all score very highly on international indexes of ICT access and use – Denmark, Iceland, Sweden, Norway and Finland are all in top 10 of the UN ICT Development Index and Denmark, Sweden, Norway and Finland are in the top ten of the Digital Readiness Index (ITU 2014; Economist Intelligence Unit 2010). 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 a driver of digitalisation. The high level of digital readiness presents a huge potential for the development of digital business and jobs in the Nordics, but also a potential for change: the companies and citizens are ready to digital solutions - including smart services and knowledge-intensive business services (KIBS) as highlighted in Finland (Toivonen, 2015). We will now dig deeper into three service industries in the Nordics, which have experienced – and are expected to experience - further and rapid change due to digitalisation. They are not representative for all service industries, but they illustrate three significant developments within the service sector that might affect other industries.

## 5.2 *Policy debates on digitalisation and social partner responses*

The digitalisation of work and labour markets has been the centre of attention in both public and private debates in the Nordic countries. The consequences of the 4$^{th}$ industrial revolution – digital automation – has especially been debated with regard to the future of manufacturing in the Nordics, whereas the consequences of digital platforms has been strongly debated with regard to the future of private services. One could argue that the first part of the debate has not fully matured, as digital automation also will affect private services – perhaps even more - and this part of the discussion needs to further unfold.

There have been several analyses of digital platforms, their effect on Nordic service labour markets and possible regulatory responses. The Norwegian government created a Sharing Economy Committee in 2016, which published their final report in 2017 (The Sharing Economy Committee, 2017). The Swedish union Unionen, which organises a large share of service workers in Sweden, has published a report with suggestions especially on how to regulate the sharing economy in a way that sustains the voluntarist model of labour market regulation (Söderqvist, 2016; Söderqvist, 2017). The Danish and Norwegian confederations of trade unions have published policy papers on the sharing economy (LO Denmark 2016; LO Norway 2016), and The Nordic council of ministers funded a pilot project comparing developments across all five Nordic countries (Dølvik and Jensnes, 2017). Finally, the Finnish government has developed a vision and a strategy programme for Finland 2025, which includes a strong focus on creating a fertile business environment for digital growth (Finnish Government, 2015).

However, if we focus on social partner responses more broadly, we find significant differences between the Nordics. In one analysis, comparing social partner responses to digitalisation (digital

automation and digital platforms) in private services, it becomes clear that especially the tripartite responses have differed – for instance between Denmark and Sweden (Ilsøe 2017a). This is a challenge, as especially platforms and platform workers remain unorganised and is therefore not covered by bipartite negotiations in the voluntarist industrial relations models of the Nordics. I.e. we need other arenas than the bipartite negotiations of collective agreements to kick off the social dialogue (Ilsøe 2017b).

Sweden has concluded more than eight tripartite commissions on topics related to digital labour markets. This includes the Digitalisation Commission (2013) and the Taxi Commission (2015) (see Table 1). In Denmark, there were no tripartite commissions with broad representation of social partners on the topic of digital labour markets before 2017 (see Table 2). In 2017, the Danish government established a Disruption Council that will work throughout 2017 and 2018 (Regeringen 2017). Also in 2017, tripartite negotiations on the future of further training in Denmark were initiated. In sum, tripartite initiatives on digitalisation of work came much later in Denmark than in Sweden. Also in Norway, we have more and earlier tripartite initiatives than in Denmark (Dølvik and Jensnes 2017). The later introduction of tripartite committees on digitalisation of work in Denmark might help explain why social partners in Denmark have less common language on the topic and more contradictory viewpoints than their colleagues in for instance Sweden. Further commissions in Denmark could lead to the development of more common language among the social partners, as it will force them to discuss this topic although it is not yet part of the collective bargaining system.

Table 1: Social partner responses in Sweden to digitalisation of work in the private service sector.

| Sweden | Union | Employers´ organisation |
|---|---|---|
| **Unilateral arena** | • Analyses/reports, media appearance<br>• Dialogue with departments and political parties<br>• Dialogue with European and international unions<br>• Responses to EU strategies<br>• Website on automatization<br>• **Attempt to build a private unemployment office for white collar workers (through a cartel of white collar unions)** | • Analyses/reports, media appearance<br>• Think tank which deals with the issues of education in a digital context<br>• Dialogue with departments and political parties<br>• Dialogue with European forums and employers´ organisations |
| **Tripartite arena** | • **Digitalization commission (2013)**<br>• **Taxi commission (2015)**<br>• **Workplace safety in the new economy (2015)**<br>**+ five more commissions since 2015**<br>• Many new tripartite initiatives in the making on platforms, life-long learning and social security | • **Commission on future work (Arbetet i framtiden)** |
| Bipartite arena | • Informal contacts to employers´ organisations<br>• Contact new digital employers | • Informal contacts to unions |

Source: Ilsøe 2017

Table 2: Social partner responses in Denmark to digitalisation of work in the private service sector

| Denmark | Union | Employers´ organisation |
|---|---|---|
| **Unilateral arena** | • Analyses/reports, media appearance<br>• Political project<br>• Dialogue with government departments and political parties<br>• Responses to EU strategies<br>• **Pension schemes for selfemployed union members**; freelancer network<br>• Dialogue with European and international unions | • Analyses/reports, media appearance<br>• Political project<br>• Dialogue with government departments<br>• and political parties<br>• Dialogue with European forums and<br>• employers' organisations |
| Tripartite arena | • Roundtable at Copenhagen municipality<br>• Government-led strategy process on sharing economy (open ended)<br>• Union-led conference on platform economy<br>• Union-led expert panel on platform economy<br>scheduled for 2017<br>• **Government-led disruption panel 2017-18** | • Roundtable at Copenhagen municipality<br>• Company forum<br>• Debate at Denmark's Political Festival<br>• Tripartite meetings on unemployment benefits – new agreement<br>• **Tripartite negotiations on further training 2017** |
| Bipartite arena | • Informal contacts to employers´ organisations<br>• Contact new digital employers | • Informal contacts to unions |

Source: Ilsøe 2017

## 5.3 *Specific service sectors*

### *5.3.1* Retail

Retail is one of the largest service industries in the world and in the Nordics if measured by the number of employed people (Dølvik, 2001, Bosch; Lehndorff, 2005). It is an industry with both skilled and un-skilled workers, although the number of un-skilled workers has increased in recent years. We find a large number of students working in retail in the Nordics – and this share has increased – as they are interested in working marginal part-time and unsocial hours, which is the dominant working time pattern in the industry (Price et al. 2011; Ilsøe and Felbo-Kolding 2014; Ilsøe 2016). This is different to other countries, like for instance South Korea, where we find a predominance of middle-aged women (Grugulis and Bozkurt, 2011). Many chains are owned by capital funds – either Nordic or foreign-owned capital funds. E-trade is playing an increasing role within retail, which means that global companies can take over market shares from national companies. However, also Nordic retailers increasingly have e-trade in their business models – especially directed towards the Nordic markets (Ilsøe and Felbo-Kolding, 2014). This is expected to have a negative effect on the number of jobs in retail and also to change the competence requirements. Working in e-trade, some of the most important tasks are communication skills (also in writing), marketing and foreign languages. Less people are needed to work in sales and more are needed to work in storage and logistics (ibid.). However, many Nordic retailers choose to combine physical shops with online shops - both among speciality shops and groceries. Accordingly, e-trade does not seem to only replace physical shops but also to interact and supplement physical shops. 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. This is for instance the case in Swedish-owned IKEA and in Dansk Supermarked. The effect of this

development on employment has not been evaluated in larger studies yet, but it is expected to have a negative effect on the overall employment in the industry.

### *5.3.2* Banking

Banking is one of the larger service industries in the Nordics – a number of Nordic banks operates in several European countries and are international companies also outside the Nordic sphere. Good examples of this are Nordea, SEB and Danske Bank. However, the traditional business model in banking is under pressure due to digitalisation. Money becomes more digital and less physical (bitcoin etc.), transactions become more mobile (Mobilepay via smartphones in Denmark is one example) and we slowly see signs of lending and saving becoming more network-based via crowdfunding sites, although this is still in the making. This puts a pressure on employment levels in banking and the traditional business model with larger and smaller banks with physical headquarters and branches. One Nordic union, Finansforbundet in Denmark, has taken a proactive initiative to handle developments. They have created a Copenhagen Fintech Lab, which offers office space for 100 Fintech entrepreneurs at the union headquarters, which allow them to interact and communicate with the frontrunners in future banking (https://www.finansforbundet.dk/da/nyheder-aktuelt/Sider/Fuldfartpaacopenhagenfintech.aspx). This has made them reflect on the future role of unions within banking, among others, at the upcoming yearly union congress. If employment in banking increasingly consist of self-employed entrepreneurs and consists less of traditional wage earners hired in larger companies, this might imply that unions should adapt according the development. Perhaps the self-employed need certain forms of networks, where it is possible to share ideas and competences, and unions could be facilitating such opportunities. (https://www.finansforbundet.dk/da/OmFinansforbundet/Sider/voresfaellesskabskaludviklestilforandringerne.aspx).

### *5.3.3* Cleaning

Cleaning is a very price sensitive industry with many workers working part-time, marginal part-time or doing multiple jobs to make a living – also in the Nordics (Ilsøe et al. 2017). It is often un-skilled work, and we find an overrepresentation of women and migrant workers in cleaning in the Nordics (ibid.). Cleaning in companies and public institutions has undergone many organisational changes in recent years due to outsourcing from the public to the private sector; subcontracting models in the private sector and companies that behave in conflict with the law (Rasmussen et al., 2016). However, from 2016 and onwards we can also observe significant changes in cleaning in private households in the Nordics. This has for many years been a grey or even a black market, where for instance migrants make some extra money outside the regular labour market. Nordic start-up digital platforms grabbed this as a business opportunity; by mediating private household cleaning via digital labour platforms this market could potentially become more efficient and white. In Norway, the platform Weclean has had great success and growth, and the owners are considering whether to transform the business model from subcontracting to a regular company with employees (Dølvik and Jensnes, 2017). In Denmark, we can observe several cleaning platforms. Happy Helper is the largest, and it has just received 3.5 million DKK from Vækstfonden to expand their business from the large cities in Denmark to the rest of the country.[31] We also find the platforms Cleady, Meploy and Hilfr offering cleaning in private households. Most of these

[31] http://finans.dk/erhverv/ECE9671098/happy-helper-faar-millionlaan-af-vaekstfonden/?ctxref=ext

Danish platforms (like the Norwegian example) stipulate a minimum hourly wage. One of them, Hilfr, also adds a 'welfare supplement' to the hourly price. Some of them also add an insurance to the price covering accidents at work. This insurance is created in collaboration with the insurance company Tryg (Hilfr and Happy Helper). Interestingly, the Danish platforms set an upper limit for the yearly income via the platform at 50.000 DKK. This limit is no coincidence – if you earn less than 50.000 DKK as a self-employed in Denmark you do not need to register with a VAT number and pay VAT. The cleaning platforms are growing rapidly and have a potential to change the industry on private household cleaning. They are typical gig platforms mediating work in a very local market – customers and cleaners often live near each other – which is also reflected in the fact that they often use the national language (not English) on their homepages and apps. It is not possible yet to estimate whether the self-employed cleaners pay taxes, but if some of the platforms start cooperating with the tax authorities or develop into regular companies, this could potentially transform private household cleaning into a regular formal labour market that can integrate periphery workers (migrants, exchange students and unemployed) in new ways on the labour market.

### 5.4 *Platforms*

In general, digitalisation accelerates economic activities through digital platforms (Hill, 2015; Huws, 2014). Foreign platforms like Airbnb (rental of housing) and Upwork (work at the computer) as well as Nordic platforms like Weclean 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 online. It is important to distinguish between two different types of platforms; 1) capital platforms that mediates rentals like Airbnb and 2) labour platforms that mediates buying and selling of private services like Upwork (Farrell and Greig, 2016). Capital platforms are, in principle, not part of the labour market. There may, however, be grey zones. If a person, who rents out an apartment on Airbnb starts to offer additional services (tour guiding or breakfast cooking) or rents out several apartments, it can considered to be self-employed activities. Labour platforms are part of the labour market, and the main business model is subcontracting, i.e. those working via the platforms are considered to be self-employed. It is important to distinguish between crowd work platforms for work at the computer - like the American platform Upwork - and gig platforms - like the Norwegian Weclean – that distributes small tasks performed in the physical world (De Stefano, 2016). The first type addresses a potential global market of work, where the buyer and seller of the service can be situated in widely different countries and time zones. The other type typically addresses a local market, where the buyer and seller often find themselves in the same city or maybe even district to keep time spent on transport down.

Analyses of bank data from JP Morgan Chase from 2016 indicate that the digital platforms contribution to the economy is still relatively modest in the United States. About 1 percent of American adults have received revenue from a digital platform (Farrell and Greig, 2016) in a given month. A number of European surveys indicate that up to 10-15 percent of the European population earn money through digital platforms – the exact figure for Sweden is 12 % (Huws and Joyce, 2016). However, in these studies, a very wide definition of digital platforms has been used. The European surveys find that earnings through platforms are limited. They act as a supplement and can hardly be the main source of income. A number of Danish surveys confirms the tendency observed in the US – the use of the digital platforms are still limited as well are the earnings (Statistics Denmark 2017; Ilsøe and Madsen forthcoming).

# 6 Service Markets in Belgium (Monique Ramioul, Yennef Vereycken, HIVA/KU Leuven)

## 6.1 *General outline of Belgian service sector*

There exists little doubt Belgium is first and foremost a service economy. In 2016, 69.3% of the GDP was produced by services. In comparison to 2007, Belgian services grew with an additional 3.3%. To be more specific, the category Trade, Transport and Hotel & Catering provides 25.5% of the GDP, public services and education 19.6% and business to business services 17.9%. Overall, more than 2/3 of the Belgian economy relies on the production of services (Algemene Directie Statistiek, 2017).

A similar trend can be noticed with regard to the employment structure. Whereas in 1988 a quarter of employment took place in industrial sectors, this number has shrunk to 13.1% in 2015. In return to the decline of employment in industry, employment in services took a sharp rise. Recently, 62.5% of the Flemish employment was situated in service sectors. Commercial services were responsible for 40.3% of the Flemish employment in 1990. This number increased to 49.5% in 2015. Social services and health employment increased from 7.7% in 1990 to 13.1% in 2015 and education and public services are responsible for 15.4% of Flemish employment (a relative decrease, but an increase in absolute numbers in comparison to 1990). If services grow at the same pace, it is expected that services will be responsible for more than 80% of the Flemish employment in 2050 (Sels, Vansteenkiste and Knipprath, 2017; Vansteenkiste, Neefs and Sels, 2017). However, much depends on labour productivity in services, realized output and the potential impact of technological disruption. This potential employment loss in Belgium due to replacement by technology is estimated at 'only' 7% of the total employment and would mostly be situated in commercial services – in so far as such estimations make sense (Arntz, Gregory and Zierahn, 2016).

The job qualification structure changed accordingly. The amount of low skilled jobs increased slightly in the period between 1993 and 2013; where low skilled workers made up 8,7% of the total Flemish employment in 1993, they represent 10% in 2013 – mostly unskilled workers, working as maintenance and cleaning staff. Regarding services, these jobs are mostly associated with personal or locally bound activities. The number of middle skilled jobs decreased significantly from 55.9% in 1993 to 45.9% in 2013 (Vanderbiesen, 2015). This decrease of jobs for middle skilled workers may be (partly) caused by automation or digitalisation. An increase can be noticed in the demand for high skilled professionals. In 2013, 44.1% of the Flemish jobs were filled by highly skilled workers (35.4% in 1993). This increase is explained by the growth in services which often require higher qualifications, such as jobs in management, education, ICT or health related functions. At the same time, a limited increase in the demand for low skilled workers can be observed too (Vanderbiesen, 2015).

Recent productivity gains of Belgian services are lower compared to the increases in neighbouring countries. As the European Commission suggested, this probably has to do with the recent investments in services with traditional lower productivity levels and growth such as care or education. However, the increase in productivity in ICT-services in Belgium is among the lowest in the EU too. Only financial and assurance-related services experience an above- EU-average growth in productivity. Despite this slow increase in productivity, the added value produced by the Belgian services is still among the highest of Europe (European Commission, 2017).

## 6.2 *Recent policies shaping the service markets*

The yearly country report of the European Commission on the social and economic challenges of Belgium in the context of European semester 2017 pointed out that regional differences in

regulation and an overload of regulations in general effectively limit competitiveness of Belgian services, leading to lower productivity and higher consumer prices. Especially in the field of network-sectors such as public transport, postal-services or telecommunication, free professions as well as small retail, significant legal barriers in the form of anti-competitive regulations, unnecessary limitations or excessive regulations obstruct competition. In the same report, the European Commission notices that most policy aimed at stimulating innovation is addressing industrial sectors such as pharmacy or (bio)chemistry. Investments in service related innovation are lagging behind (European Commission, 2017).

Belgian government recently launched Digital Belgium (see http://digitalbelgium.be/), which constitutes the mission and vision on digitalisation. An online government, digital economy, digital infrastructure, security and accessibility and a digitalisation of medical administration are the 5 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 (Serv, 2017).

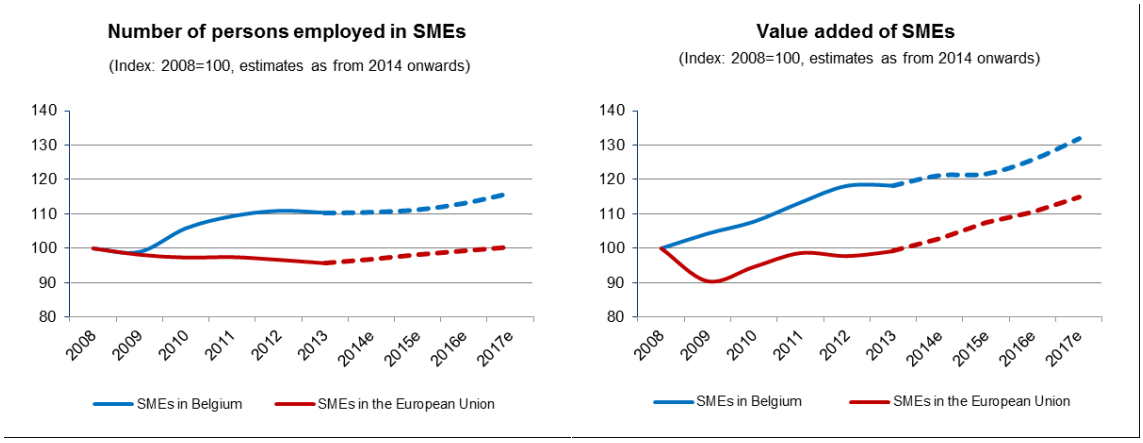
In a mission statement of the Flemish government explaining the goals for the next 15 years, 3 goals related to the service economy are included: improving competition between service providers, improving innovation in service sectors and introducing digital technologies. Recent policies already aim at entrepreneurship in digital services: a tax shelter for crowdfunding was introduced, a new legal regulation for student-entrepreneurs was developed and a favourable tax regime for software development was implemented (Serv, 2016; Digital Belgium, 2016).

## 6.3 *Service markets*

With regard to the market of services, we opted to focus on four topics: the traditional strong role of small and medium enterprises in the Belgian (service) economy; the sharing/platform economy, and e-commerce.

### *6.3.1* Small and medium enterprises (SMEs)

*Figure 5: Number of employees and value added of SMEs in Belgium*




*Source: European Commission, 2016*

Small and medium enterprises up to 250 employees play an important role in the Belgian economy and account for 69.3 % of the total employment (European Commission, 2016). There added value is estimated at 61.4% of the total added value produced in the Belgian economy.

Both the employment as well as the added value of SME's is above the average of the EU 28 (see figure 1) (European Commission, 2016). Of particular importance are micro firms (less than 10 employees), which generate more than a fifth of added value. Their 34 % share of employment is almost five percentage points higher than the EU average.

The 'non-financial business economy' in Belgium has performed strongly since 2008, despite the negative impact of the financial crisis. Total added value grew by 19 % in 2008-2015 and employment increased by 6 %. SMEs performed even better. SME added value increased by around a quarter and employment grew by more than a tenth. A large proportion of SME growth was due to the achievements of micro firms, whose value added and employment grew by 27 % and 22 % respectively. This strong SME performance is mostly attributable to the growth of the professional services sector, benefiting from Belgium's location at the heart of Western Europe. Second important driver is the Accommodation and Food Service sector, stimulated by a steady rise in non-domestic tourists. On the contrary, the two traditional strongholds of SME's, Manufacturing (except Chemicals) and Transportation, did not show any growth in this period and even a decrease in employment and added value (European Commission, 2016).

SME's determine to a great extent the variety and heterogeneity of the Belgian service economy. The number of micro, small and medium enterprises has been increasing since 2004 by an annual rate of 2%. In particular, Hotels & Catering, Retail and Professional Services are the main drivers of this increase and account for 50% of all small and medium enterprises in Belgium (Unizo and Graydon, 2017). In Flanders, 99% of the enterprises employ less than 200 employees, 96% even less than 50 employees (Vandekerckhove, Struyven and Bulté, 2014).

Although the increase in micro, small and medium enterprises seems to point at a greater diversity and heterogeneity of the Belgian service economy since 2004, it is worth mentioning that this increase mainly took place in the category of micro enterprises and more precisely among self-employed without employees. Especially since 2005, their numbers increased significantly: 88% of micro enterprises constitute of one person businesses (Unizo and Graydon, 2017).

### *6.3.2* Sharing/platform economy

Despite the extensive public attention for the sharing and platform economy in Belgium, it proved to be difficult to find any numbers on the growth, expansion or impact of it on the total economy. Currently, IDEA consult is conducting an overview study of the contemporary situation of the Flemish sharing economy commissioned by the Flemish government, however, preliminary results are not yet available. Depending on the source and the definition applied, the ICT sector (which is broader than the sharing/platform economy) in Belgium would be responsible for 2 to 12% of total employment (IDEA Consult, 2016). Digital employment in the digital economy is defined here very broadly as all workers in high-tech sectors but also workers with STEM degrees in low-tech sectors (Goos, Konings and Vandeweyer, 2015). In addition, the 4% biggest companies would be responsible for 57% of the employment. The revenue of the sharing/platform economy in Belgium is estimated between 90 and 110 million euro, which would account for 0.4% of the total added value of the broader ICT sector in Belgium. The sharing/platform economy in Belgium is mainly situated in five different services: peer-to-peer sleeping accommodations, peer-to-peer transport, domestic services on demand, professional services on demand and collaborative financing. Predictions estimate that this revenue could increase to 500million euro in 2020 (IDEA Consult, 2016; Géronnez, 2016). Legal regulations in the field of the sharing economy depend and differ between the different regions (Flanders, Brussels and Wallonie), which obstructs further growth in this sector (European Commission, 2017).

Even as numbers are rare, the Belgian government recently took some measures to stimulate, and to a lesser extent regulate, the sharing/platform economy. With regard to fiscal law, confusion existed on the tax regime applicable to workers' or service providers' income generated from the sharing/platform economy. In response, a favourable tax regime was recently introduced. Whereas normally a 33% tax has to be payed, only 10% taxes have to be paid on earnings from the sharing/platform economy, as long as the income is below 5000 euro. No VAT has to be paid. With regard to social law, the government decided that an income below 5000 euro will not be considered as a professional activity. In addition, the government started with registering platforms and apps and this favourable tax regime is only applicable to the income generated through these registered platforms. To receive a certificate, platforms or apps can offer the services of both professionals as well as individuals, but the tax regime only applies to services offered by and to individuals. As a consequence, platforms need to organise themselves in such a way that a separation between professionals and individuals can be made (Federale Overheidsdienst Financiën, 2017). Since 1 July 2016, (only) 12 platforms received an official certificate, mostly in the field of 'house, garden and kitchen' services involving individuals and to a lesser extend professionals.[32] It is important to note that platforms that involve the delivery of products or renting of houses and/or products are not qualified to get a certification.

The public debate is divided between proponents and opponents. Proponents point at the possible optimisation of goods – for instance, capitalisation of household assets, and the (flexible) possibilities it offers to individuals to increase income and purchasing power. Opponents fear a further erosion of minimum wages and working conditions and point at the lack of contributions from the platform economy to the social security system which potentially undermines welfare provisions and the social security system as a whole. Additionally, the sharing/platform economy has the potential to undermine (subsidised) employment in the regular labour market often occupied by already vulnerable workers, for instance in the care sector. No indications pointing at such a development have been found though.

### *6.3.3* E-commerce

E-commerce in Belgium knows strengths but also experiences some weaknesses. The index for digital economy and society (DESI) is an online tool that measures the progression that the different European countries make towards a digital economy and society (Serv, 2017). One of the dimensions measured is the integration of digital technologies, with e-commerce as a sub dimension. Three indicators are used: the number of SMEs that sells online, the turnover of e-commerce and the number of online cross-country sales. With regard to the first indicator, 23% of the Belgian SMEs sold online in 2015, which is the 6$^{th}$ position in comparison to other European countries. When looking at the revenue of e-commerce activities in all enterprises, Belgium is placed second in Europe with 31.3% of the total revenue gained through e-commerce in 2015. Even SMEs achieve 19.6% of their revenue through their e-commerce activities (third position in EU). Finally, 13.1% of SMEs sell products or services internationally which is the second highest number in Europe. Despite the high average score, it is acknowledged that the revenue stemming from e-commerce is strongly related to the size of the organization in Belgium; smaller enterprises of less than 10 employees experience much more difficulties connecting to the e-commerce market in comparison to bigger companies, even in European perspective (Serv, 2017).

[32] https://financien.belgium.be/sites/default/files/downloads/127-deeleconomie-lijst-erkende-platformen-20170726.pdf

However, with regard to individuals buying online, Belgium is lagging behind compared to neighbouring countries with only 56.8% of total population (Serv, 2017). Although this number is a significant increase compared to 2008 when only 21.3% of the Belgian population purchased online, the 56.8% is still by far less than the 82.6% in the United Kingdom and other neighbouring countries. Equally important is that e-commerce in Belgium is strongly dominated by foreign companies: 34.6% of the population that buys online, buys online through foreign platforms and companies (15.9% is the European average). Interestingly, despite the fact that more Belgian shops have an online shop compared to other European countries, less consumers shop online in Belgium. On the other side, although smaller compared to neighbouring countries, the e-commerce market in Belgium is amongst the fastest growers in Europe. In 2015, 8.2 billion euro was spent online. This represented 14% of total sales in 2015 and constituted an increase of 34.2% compared to 2014 (E-Commerce Foundation, 2016a, 2016b).

Although more products than services were purchased online, more euros were spent online on services than on products. This might indicate that the market of e-commerce products is dominated by standardized and relative cheap products. The most popular online categories in 2016 were clothing (48%), hotel & catering (36%), shoes (33%), books (32%), transport (28%) and event tickets (26%). E-commerce is both expanding in services for consumers as in services for businesses (Serv, 2017).

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 practice, this exception only related to retail-activities of both small and bigger enterprises. 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'. An important precondition however, is the fact that a collective agreement on night-work on enterprise level remains necessary to introduce night-work (ADMB, 2017). As those limitations on night work proved to be an obstacle for further growth (especially for some bigger, just-in-time firms), further growth of e-commerce services is to be expected.

The federal government agreement of 2014 stipulates the development of an independent e-commerce platform where government representatives and representatives of (cross)sectoral organisations, employer organisations, and the financial sector can cooperate and stipulate a supportive legal framework for e-commerce – the easing of the regulations on the night-work being a first accomplishment of this platform. So far, trade unions appear not to be involved. Some unresolved priorities of this platform are the development of a reliable online payment platform, measures to assure the online security and the creation of an online dispute mediation mechanism (Serv, 2017). While e-commerce gains a lot of attention of the Federal government, much fewer initiatives are launched by the Flemish government mainly focusing on awareness raising and the support of local companies.

### 6.4 *Interim conclusion*

Regarding the Belgian service markets and the tension between heterogeneity vs. standardisation, indications were found that recent policies and strategies are in favour of more standardisation at the expense of the traditional heterogeneity that exists in Belgian services. Due to the complex structure of the Belgian state and the division of power and responsibilities at different levels, regulation is often based on a regional context and regional interests, effectively blocking wide-spread standardisation. Small and medium enterprises (SME's) focusing on the regional context therefore play an important role in the Belgian economy. However, recent policies at different levels, stimulated by the European commission, focus on deregulation in favour of

competitiveness in an open market context. Subsequently, emerging services such as e-commerce realised important easings of labour law, while platform-based services such as Uber received favourable tax regimes. New business models related to the new (service-based) economy thus lead to an adaptation of the prevailing principles of the social welfare state (rather than the other way around), making competition based on price rather likely. In addition, we found indications that e-commerce in Belgium mostly relies on low-cost, standardised products, which means that competition is likely to be based on price as well. Regarding innovation, Belgian governments are still primordially focusing on (and subsidizing) industrial based innovation rather than innovation in services. Although digitalisation receives extensive public attention in Belgium, no general strategy was identified.

# 7 Service Markets in the UK (Anita Sharma, Hertfordshire University)

## 7.1 *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. With increasing use of technology within organisations, new patterns of work have emerged over the last few decades facilitated by digitalisation, the information superhighway, global networking, online platforms and Smart devices. Crowdsourcing, virtualization, disintermediation or removal of the middle-men, internetworking, use of web-based analytics, the use of social media in business collaboration, online platform working and prosumption are all part and parcel of the altered digital economy of the new millennium. Alongside the networking through technology for knowledge and creativity, which can result in employment, economic progress and social development, there are a number of negative aspects surrounding issues of privacy, security and a hierarchy of those who can do and those who cannot; those in the know - the computer-literates versus the non-literate, that establishes inequality and hierarchy based on skill sets.

The Office of National Statistics (2016) has highlighted five key features of the UK service sector (which it defines as encompassing: retail, hotels, restaurants, transport, storage, IT, finance, insurance, real estate, administration and support services, professional, scientific and technical services, education, health, social work, arts, entertainment, recreation, public administration, defence etc.) that indicate its importance to the UK economy. These include:

- 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 of London's economy in the service sector, 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 UK 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.

The service sector has been radically transformed by digitization whether the banking or insurance sector or the creative industries. With the revenue that this sector draws into the UK economy the Government is keen on greater digitalisation and being at the forefront of a global digital revolution, creating new job opportunities and skill sets for many, and placing the UK in a strong economic position on the world stage.

## 7.2 *UK Government initiatives supporting a digital economy:*

The Government in a bid to keep the country at the forefront of digitalisation is currently investing billions in various pioneering and innovative policies and initiatives.

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). It will be private sector led with an advisory group and its own team of staff, and after the initial £13 million in seed funding over a three- year period, it will be self-funding through fee income, advertising, revenue and grant contributions. 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. It started in East London and now has tech clusters in several cities around the UK, and works in tandem with the government creating policy papers and reports such as Tech Nation. 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. For this report 1000 data points were analysed, over 2700 survey responses from digital tech founders and employees and insights from community partners were taken into consideration. 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; showing that over the past five years London attracted more investment than Paris, Berlin and Amsterdam combined. The turnover of the UK digital tech industry was estimated at 170 billion in 2015 – a growth rate of 22 percent in five years. There are now estimated to be 1.64 million tech jobs in the UK, creating twice the number of jobs as the non-digital sector. These jobs are seen to be more skilled, better paid and contributing to productivity and economic growth.

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' (2013).

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.

Some other initiatives include The Council for Digital Inclusion that brings senior leaders from the private and charity sectors together with government to increase collaboration and deliver initiatives to help more citizens to go online with confidence and take advantage of the Internet. In addition there are National Health Service projects supporting digital inclusion for the most excluded groups (such as homeless people, people with disabilities, people with mental health problems, and prisoners) providing digital skills that allow them to manage their health online, which from a service perspective seeks to make all 'users' and 'customers' more digitally-capable, although perhaps less relevant where vulnerable groups are excluded and unable to access services in the first place. 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.

## 7.3 *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

Since the 1980s, the growth of new technologies or Information and Communication Technologies (ICTs) have transformed the global marketplace. In the UK ICTs helped firms cut costs, automate and offshore/outsource some of the low cost, low value, repetitive work, streamline their businesses and increase competitiveness. Further rapid changes due to digitalisation have again altered many aspects of the service sectors, with the use of online platforms and online access, virtual work and workers.

### *7.3.1* 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. Across domestic and international activities, financial and related professional services contributed £190 billion to the UK economy in 2014 (TheCity UK, 2016). According to a Commons briefing in March 2017

the financial and insurance services in 2016 contributed £124.2 billion in gross value added (GVA) to the UK economy, 7.2 percent of the UK's total GVA. London accounted for 51 percent of the total financial/insurance sector GVA in the UK in 2015. In 2015-16 the banking sector alone contributed 24.4 billion to the UK tax receipts through corporation tax, income tax, national insurance and the bank levy.

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. Fintech, seen as another digital disrupter, has shaken up the financial status quo, making significant changes through mobile transactions, peer-to-peer platforms and digital banks. In 2015 London based Fintech companies attracted £357m of venture capital investment in the first nine months, surpassing the total figure for 2014 with high profile deals for Funding Circle and TransferWise (City AM). Innovate Finance, a Fintech trade organization already has over 200 members from start-ups to global financial institutions like Barclays and Aviva.

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. Over the last few decades marked technological and digital advances within the financial sector from self-service ATM machines, online and telephone banking, contactless payments to Fintech start-ups ranging from GoCardless to mobile-focused banks like Atom and Mondo are continually changing the structure of the financial sector. 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. All of this is made possible through the use of a bespoke banking technology platform.

Within the UK Fintech plays a major role in the banking and online payments markets. Contactless, digital payments, whether in the supermarket or elsewhere, are mainly processed through World pay, a technology focused company, which provides the technology to allow payments in-store and online based in the City, working at the heart of e-commerce. This payments processing company's largest competitor in the UK is Barclaycard, and together they account for 90 percent of the market; on a global scale its rivals include Adyen, Stripe and Paypal. The newest contenders on the market include ApplePay and GooglePay. Challenger banks and the advent of Open Banking is the next phase of the UK's retail and commercial banking; a diverse, modularized marketplace where Fintech start-ups or 'digital value chain players' provide specific components of banking services or products. The Second Payments Services Directive (PSD2) is the next piece of legislation that will accelerate Open Banking and transform the payments industry.

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 are seen 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 that measures how well a driver drives, creates a driving score and sets insurance

premiums in accordance, could be beneficial to the motorist and to road safety. There are however a range of barriers preventing the widespread roll out of such telematics with people wary of being continuously watched and monitored and suspicions around how the data will be used.

Banks and insurance companies favour digital, real time networked technologies to increase profitability, efficiency, long-term agility and high margin products and services. Outsourcing has long been used to improve efficiency, simplify business and operating models and to reduce the physical footprint. Some of the effects of digitalisation can be seen in closure of bank branches, less face to face interactions, online banking, contactless payments by phone apps or card, and crypto-currencies like Bitcoin.

Since the 1980s, the liberal market economy in the UK has included the light touch regulation of commerce and free competition, openness to trade, greater labour market flexibility, lower income tax and control over trade union activity, thus providing the perfect landscape for the growth of financial services, banking insurance, tech start-ups and the big digital disruptors to enter the field and compete.

### *7.3.2* Consumer Services

The public services industry in the UK is a mature and well-established sector. A review carried out Julius (2008) for the Department of Business Enterprise and Regulatory Reform defined the 'public services industry' and attempted to assess the size of the industry across all sectors – local and central government and service functions. The report showed that the PSI in the UK was the most developed in the world and is second in size only to that of the US. In 2007/8 its revenues totalled £79bn, generating £45bn in value added and employing over 1.2 million people. Under the Coalition and Conservative Governments, private sector involvement in public services has also grown exponentially. Within the public services digitalisation has allowed easier online access to tax, benefits and local government matters through the use of a range of ICTs to create more efficiency and meet citizens' needs and expectations eg. DirectGov, the Government Digital Service (GDS), and single gov.uk domains for access to government departments.

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. (PwC, 2016) With this connectivity comes access to online retail purchases (ASOS, Amazon, eBay), online banking, instant ordering of food from Deliveroo/Just Eat, booking of health appointments, travel (airline tickets, comparison websites for flights, accommodation car hire), theatre, restaurant selections and reservations (TopTable, Hot dinners, Square Meal, Time Out) insurance and parking. Many high street retailers are missing the footfall previously experienced and many shops are shutting and focusing on the online presence. Contactless payments make everything instant and purchasing seamless. Within the UK global digitalisation of information has impacted on every sector of the service economy –

a) development of new products/sectors: Cloud technologies – smart phones, laptops, smart watches and wearable technologies, to smart meters, PSD2, bio tech, nanotechnology, block chain technologies – bitcoin;

b) Labour displacement: Artificial intelligence (AI), algorithms and robotics, Internet of Things (IoT);

c) New consumerism/labour cheapening: for example online platforms like Uber, Airbnb.

Even within home entertainment public service broadcasters such as the BBC with their linear broadcasting, face becoming increasingly redundant with the growth of digital broadcasting whether iPlayer, Netflix, YouTube or Spotify, allowing viewers and listeners freedom to consume at their convenience. A survey by Ofcom (July 2017) showed the popularity of Netflix and increase of its ratings with younger viewers - a shift to online video in place of linear channels. The BBC has through its iPlayer provided on-demand access to its programming; but with a licence fee and long-established remit to inform, educate and entertain, it may in the future find it difficult to maintain its raison d'etre and be unable to reach a large enough audience due to prevalence of multiple specialist and niche digital channels, individualization, use of other digital interfaces for personal services, which will ultimately reduce ratings and the viability of public service broadcasting.

### 7.4 *Platforms and policy responses*

A joint research report commissioned by FEPS and UNI-Europa from University of Hertfordshire on Crowd Work in Europe (2016) provided an overview of the digitalised labour market in five European countries (UK, Sweden Germany, Austria and the Netherlands), highlighting the diversity of new types of labour and associated labour conditions in the EU, with an aim to provide policy proposals for better rights for crowd workers in the future. Through online surveys of roughly 10,000 people from the five countries it was concluded that there was very little difference between the UK (which is a 'liberal market economy') Sweden (which is 'social democratic'), Germany and Austria ('corporatist') and the Netherlands (normally seen as a hybrid type). Crowd work generally is used to supplement total income – it is rarely an active career choice, there is little gender difference in propensity to do crowd work, more likely to be people from younger age groups (Huws, Spencer and Joyce 2016).

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 policymakers 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 pet sitting/travel website Trusted House sitters. 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.

For many critics, the long-awaited Taylor Review was seen to be leaning towards gig economy employers and not shifting the balance of power in the modern workplace. The new category of

the ‘dependent contractor’ was seen to be bowing to the new platform owners’ demands. Unite criticised the report for failing to address the growth of forced self-employment, unacceptable use of zero hours contracts and agency work that deny workers permanent full time work; critical of it suggesting that insecurity is the inevitable new norm. The Independent Workers Union of Great Britain (IWGB), which represents gig workers also felt the business leant towards employers and not the workers. The GMB and the TUC were similarly critical. The CBI and Institute of Directors, on the other hand, felt the Review could equally benefit or hinder businesses: CBI felt that the minimum wage, rewriting of employment status and altering of agency work rules could restrict job growth; the IoD felt this report would reassure employers by removing ambiguity around definitions of employment status in the UK and also recognised the value of flexible working to the labour market and individuals.

# 8 References

Adam, G. (2011) Representativeness of the European social partner organisations: Commerce, Dublin: Eurofound. https://www.eurofound.europa.eu/sites/default/files/ef_files/docs/eiro/tn1008018s/tn1008018s.pdf (last accessed on the 28 September 2017)

Adigital/SharingEspaña (2017), "Los modelos colaborativos y bajo demanda en plataformas digitales". https://www.adigital.org/media/plataformas-colaborativas.pdf

ADMB. (2017). Werkbaar Wendbaar Werk: nachtarbeid voor e-commerce uitgebreid. Accessed at 26.09.2017 from https://www.admb.be/nl/werkbaar-wendbaar-werk/nachtarbeid-e-commerce

Algemene Directie Statistiek. (2017). Kerncijfers: statistisch overzicht van België. Accessed at 07.08.2017 on http://statbel.fgov.be/nl/modules/publications/statistiques/chiffres_cles_2016.jsp

Alós, R., Beneuto, P.J., Jódar, P., Molina, O. and Vidal, S. (2015), "La representación sindical en España". CCOO/Fundación 1 de Mayo.

Arntz, M., T. Gregory and U. Zierahn (2016), "The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis", OECD Social, Employment and Migration Working Papers, No. 189, OECD Publishing, Paris. http://dx.doi.org/10.1787/5jlz9h56dvq7-en

Boes, K., Buhalis, D. and Inversini, A. (2016), Smart tourism destinations: ecosystems for tourism destination competitiveness, *International Journal of Tourism Cities,* 2(2):108-124.

Bohle, D. and Greskovits, B. (2012) Capitalist Diversity on Europe's Periphery, Ithaca and London: Cornell University Press.

Bosch G and Lehndorff S (eds) (2005) Working in the Service Sector: A Tale from Different Worlds. London: Routledge.

Coyle, D/Sharing Economy UK (2016) 'The Sharing Economy in the UK'

Daum, M. (2016). IT-Dienstleistungsbranche: Die Branche, ihre Unternehmen und Beschäftigten im Zentrum der digitalen Transformation. Stuttgart: input Consulting. Retrieved from http://www.input-consulting.de/files/inpcon-DATA/download/IT-Branchenanalyse-INPUT-2016-final.pdf

DCMS (March 2017) The UK Digital Strategy Policy Paper. The UK Digital Strategy, https://www.gov.uk/government/news/digital-strategy-to-make-britain-the-best-place-in-the-world-to-start-and-grow-a-digital-business

De Stefano, V. (2016) Introduction: Crowdsourcing, the Gig-Economy and the Law. Comparative Labor Law & Policy Journal 37(3): 461-470

Degryse, C. (2016), Digitalisation of the economy and its impact on labour markets, ETUI Working Paper 2016.02.

Dølvik JE (ed.) (2001) At Your Service? Comparative Perspectives on Employment and Labour Relations in the European Private Sector Services. Brussels: PIE/Peter Lang.

Dølvik JE and Jesnes K (2017): Nordic labour markets and the sharing economy – Report from a pilot project. TemaNord 2017:508. Nordic Council of Ministers.

Ecommerce foundation. (2016a). Country report Belgium 2016. Accessed at 07.08.2017 on https://www.ecommercewiki.org/Prot:Belgium_B2C_Ecommerce_Country_Report

Ecommerce foundation. (2016b). European Country report 2016. Accessed at 07.08.2017 on https://www.ecommerce-europe.eu/research/ecommerce-europe-reports/.

Economist Intelligence Unit (2010): Digital economy rankings 2010. Beyond e-readiness.

Eurofound. (2015). New forms of employment. Luxembourg, Publications Office of the European Union.

Eurofound (2016), "Vocational training for employment in Information and Communication Technologies in Spain." Foundation Seminar Series 2016, *The impact of digitalisation on work in the European Union: Building up national agendas for better implementation of digital changes.* Final report, 23.9.2016.

European Commission (2016). 2016 SBA Fact Sheet Belgium. Accessed at 25.09.2017 at https://ec.europa.eu/growth/smes/business-friendly-environment/performance-review-2016_nl

European Commission (2017). Country report Belgium 2017. Accessed at 07.08.2017 op https://www.eumonitor.nl/9353000/1/j9vvik7m1c3gyxp/vkc1g2hq4fzr

European Parliament (2014), *Mapping Smart Cities in the EU*, Brussels: DG for internal Policies.

FIM-CISL (2015), SindacatoFuturo in Industry 4.0, Adapt University Press.

Financial Times, February 25, 2017 'The big data tech revolution set to shake up insurance' FTMoney.

Finnish Government (2015): Finland, a land of solutions. Strategic Programme of the Finnish Government

FOD Financiën. (2017). Aanvraag tot erkenning van een elektronisch platform. https://financien.belgium.be/nl/vzws/deeleconomie/aanvraag-tot-erkenning-van-een-elektronisch-platform

'FT Big Read. 'Fintech' *FT Weekend* 8/9 July 2017 p.7

Fundación EY (2017), "Estudio sobre la economía colaborativa en España". Fundación EY, en consorcio con Adigital. Fundación Cotec, Fundación de Estudios Financieros y Círculo de Empresarios.

Géronnez L. (2016). De Deeleconomie, wanneer virtueel reëel wordt. Accessed at 26.09.2017 from http://www.ideaconsult.be/index.php?option=com_content&view=article&id=48&Itemid=54&lang=nl&projid=377.

Goos, M., Konings, F., Vandeweyer, M. (2015). Employment Growth in Europe: The Roles of Innovation, Local Job Multipliers and Institutions. Discussion Paper Series nr: 15-10: Utrecht, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2671765

Govup/Agidital (2017), "Trabajo en plataformas digitales: análisis y propuestas de regulación." Govup/Agidital, July 2017, http://www.gov-up.com/wp-content/uploads/2017/08/GOVUP-Trabajo-en-plataformas-digitales.pdf

Grugulis I and Bozkurt Ö (eds) (2011) Retail Work. Basingstoke: Palgrave Macmillan.

Guardiancich, I. and Molina, O. (2017), *Talking through the crisis: social dialogue and industrial relations trends in selected EU countries.* ILO, Geneva.

Hunek I and Geary J (2016) Institutional transition, power relations and the development of employment practices in multinational companies operating in Central and Eastern Europe. In:

Delteil V and Kirov V (eds) Labour and Social Transformations in Central and Eastern Europe: Europeanization and Beyond. New York: Routledge, pp. 60-76.

Hill S (2015) Raw Deal: How the "Uber Economy" and Runaway Capitalism Are Screwing American Workers. New York: St. Martin's Press.

Huws U (2014) Labor in the Global Digital Economy: The Cybertariat Comes of Age. New York: Monthly Review Press.

Huws U and Joyce S (2016) Size of Sweden's 'Gig Economy' Revealed for the First Time. Hertfordshire: University of Hertfordshire.

Idea Consult. (2016). Deeleconomie, Stelling van een postarbeiderssamenleving. https://www.unizo.be/sites/default/files/kamer_van_de_middenstand_-_deeleconomie_-_stelling_van_een_postarbeidsamenleving_002.pdf

Ilsøe A (2017a): 'The digitalisation of service work – social partner responses in Denmark, Sweden and Germany', TRANSFER - European Review of Labour and Research, 23 (3): 333-348.

Ilsøe A (2017a): 'The digitalisation of service work – social partner responses in Denmark, Sweden and Germany', TRANSFER - European Review of Labour and Research, 23 (3): 333-348.

Ilsøe A (2017b): Arbejdsmarked. Kickstart dialog om platformsøkonomi. Politikens analyse. Sektion 2 (Debat), 23. april 2017. s. 6.

Ilsøe A and Felbo-Kolding J (2014): Samarbejde om arbejdstid og uddannelse - veje til rekruttering og fastholdelse i dansk detailhandel. Copenhagen: FAOS, Department of Sociology, University of Copenhagen.

Ilsøe A and Madsen, LW (2017): Servicearbejdsmarkedet i Danmark efter finanskrisen. FAOS Research Paper No 155. Copenhagen: Department of Sociology, University of Copenhagen.

Instituto Nacional de Estadística (2016), *Indicadores sobre uso TIC en las empresas – Años 2016-2017*. Retrieved at: http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176743&menu=ultiDatos&idp=1254735576799 (accessed 18.09.2017).

ISTAT (2016), "Progetto CNEL-ISTAT sul tema 'Produttività, struttura e *performance* delle imprese esportatrici, mercato del lavoro e contrattazione integrativa', Report intermedio". http://www.istat.it/it/files/2016/03/Report_Cnel_Istat1.pdf

ITU (2014): Measuring the Information Society Report. Geneva: ITU.

Julius, D (2008) 'Public Services Industry Review. Understanding the Public Services Industry: How big, how good, where next?' webarchive.nationalarchives.gov.uk/20121212135622/http:/www.../file46965.pdf

Kilhoffer, Z., Lenaerts, K. and Beblavý. M. (2017), The Platform Economy and Industrial Relations. Applying the old framework to the new reality, *CEPS Research Report*, No. 2017/12, August 2017

Kirov, V., Thill, P. (eds.) (2015), Social dialogue in the financial sector in Europe. Contribution to anticipation and restructuring, Research Report for the Project EUROSOFIN, VS 2013/ 0355, Esch-sur-Alzette: LISER.

Kretsos, L., and Vogiatzoglou, M. (2015), Lost in the Ocean of Deregulation?: The Greek Labour Movement in a Time of Crisis, *Relations Industrielles/Industrial Relations* 70(2): 218-239.

Mandl, I and Curtarelli, M. (2017). Crowd employment and ICT-based mobile work – new employment forms in Europe. in Meil, P. and Kirov, V. (Eds.) (2017): Policy Implications of Virtual Work. Basingstoke: Palgrave, pp. 51-80.

Mazzucato, M. (2015). The entrepreneurial state: Debunking public vs. private sector myths (Vol. 1). Anthem Press.

McKinsey Global Institute (2017) "A future that works: Automation, employment, and productivity." *McKinsey Global Institute, New York, NY* (2017).

Nölke, A. and Vliegenthart, A. (2009) 'Enlarging the Variety of Capitalism: the Emergence of Dependant Market Economies in East Central Europe', World Politics, 61(4): 670–702.

Ofcom (2017) Communications Market UK. August 2017 https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2017

ONS (Sept 2016) 'Five Facts about …. The UK Service Sector ' visual.ons.gov.uk/five-facts-about-the-uk-service-sector/

Portugal, P. and Vilares, H. (2013), Sobre os sindicatos, a sindicalização e o prémio sindical. Banco de Portugal, Boletim Económico, Inverno 2013. https://www.bportugal.pt/sites/default/files/anexos/papers/ab201317_p.pdf

Price R, McDonald P, Bailey J and Pini B (2011) Young People and Work. Farnham: Ashgate.

Prodi, E., Seghezzi, F. and Tiraboschi, M. (2017) (Eds), Il piano Industria 4.0 un anno dopo. Analisi e prospettive future, ADAPT LABOUR STUDIES e-Book series n. 65.

Pupinis, M. (2012). Understanding the Sectoral Patterns of Foreign Direct Investment in the Baltic States: How do Prevailing Skills, Political Stability and Political Ideologies Matter? Budapest, Master Degree dissertation, Central European University.

PwC (2016) Total Retail Survey. London: PriceWaterhouseCoopers https://www.pwc.com/gx/en/retail-consumer/.../assets/total-retail-global-report.pdf

Rasmussen, S, Refslund, B, Sørensen, OH, & Larsen, T (2016): Reducing precarious work in Europe through social dialogue – the case study of Denmark.

Roland Berger/Siemens (2017), "España 4.0. El reto de la transformación digital de la economia." https://w5.siemens.com/spain/web/es/estudiodigitalizacion/Documents/Estudio_Digitalizacion_Espana40_Siemens.pdf

Roth, I., Zanker, C., Martinetz, S., & Schnalzer, K. (2015). *Digitalisierung bei Logistik, Handel und Finanzdienstleistungen. Technologische Trends und ihre Auswirkungen auf Arbeit und Qualifizierung*. Stuttgart: ver.di Landesbezirk Baden-Württemberg.

Sass, M., & Fifekova, M. (2011). Offshoring and outsourcing business services to Central and Eastern Europe: Some empirical and conceptual considerations. European Planning Studies, 19(9), 1593-1609.

Sels, L., Vansteenkiste, S., & Knipprath, H. (2017). Toekomstverkenningen arbeidsmarkt 2050. Accessed at 20.09.2017 from http://www.steunpuntwerk.be/node/3596

Schmidt, F. (2017). Digital Labour Markets in the Platform Economy. Friedrich-Ebert Stiftung.

Sociaal Economische Raad Vlaanderen (Serv) (2017). Rapport E-commerce. Accessed at 25.09.2017 from http://www.serv.be/serv/publicatie/advies-e-commerce-vlaanderen.

Statistics Denmark (2017): 'Hver femte dansker deltager i deleøkonomien' Nyt fra Danmarks Statistik, nr. 266.

Taylor,M /RSA. (2017) 'Good Work: The Taylor Review of Modern Working Practices' Independent Report. Department of Business, Energy and Industrial Strategy. July 2017 https://www.gov.uk/.../good-work-the-taylor-review-of-modern-working-practices

The Tech Nation 2017 (http://technation.techcityuk.com)

The World Bank (2017), World Bank national accounts data (2017): *Services, value added (% of GDP).* Retrieved at https://data.worldbank.org/.

Tielens, J., Van Hove, J. (2014). Het potentieel van de Belgische Dienstenexport: een Sectorale en Bilaterale Studie. Accessed at07.08.2017 op https://lirias.kuleuven.be/handle/123456789/455588

Toivonen, M (2015): Opportunities and challenges in Finnish service business. In: Service Economy Revolution and Digitalisation - Finland's Growth Potential, pp. 68–109. Helsinki.

Unizo, Graydon Belgium, UCM. (2017). Het KMO-rapport België 2016. Accessed at 07.08.2017 on https://graydon.be/downloads/report-het-kmo-rapport-2016

Vandekerckhove, S., Struyven, L. & Bulté, S. (2014). Arbeidsdynamiek bij KMO's in Vlaanderen: groeitrends en ontwikkeling van een gebalanceerde groei-index (Beleidsrapport STORE-B-13-030.) Steunpunt Ondernemen en Regionale Economie: Leuven.

Vansteenkiste, S., Neefs, B., Sels, L. (2017). Wat als… 80% van de Vlaamse tewerkstelling in de dienstensector plaatsvindt?. Accessed at 07.08.2017 on http://www.steunpuntwerk.be/node/3620

Visser, J. (2016), ICTWSS Data base, Version 5.1. Amsterdam: Amsterdam Institute for Advanced Labour Studies (AIAS), University of Amsterdam.

Vodafone (2016), "Análisis de la Digitalización de Autónomos y Pymes. España 2016".

World Economic Forum. (2017). Beyond Fintech: A Pragmatic Assessment Of Disruptive Potential in Financial Services. World Economic Forum. Retrieved from http://www3.weforum.org/docs/Beyond_Fintech_-_A_Pragmatic_Assessment_of_Disruptive_Potential_in_Financial_Services.pdf

Yordanova, G. (2015). Global Digital Workplace as an Opportunity for Bulgarian Woman to Achieve Work-Family Balance.// Working Paper Series, Number 5, COST Action IS 1202, The University of Hertfordshire, College Lane, Hatfield, Hertfordshire AL10 9AB, UK, 2015, available at: http://www.cost.eu/domains_actions/isch/Actions/IS1202 (last accessed - 22 August 2017).

Yordanova, G. and Kirov, V. (2017), The work-life balance in the ICT sector in Bulgaria: the role of virtual work", non-published research report for the Bulgarian Academy of Sciences (Contr. № ДФНП-155/12.05.2016), in Bulgarian.

Ženka, J., Novotný, J., Slach, O., & Ivan, I. (2017). Spatial distribution of knowledge-intensive business services in a small post-communist economy. Journal of the Knowledge Economy, 8(2), 385-406.