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Shaping industrial relations in a digitalising services industry: regional report for Continental Europe

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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 transnationalisation of service companies at large, outsourcing and offshoring, working conditions and ways of influencing them, interest representation and participation.

2 Service Markets

2.1 *General outline of Continental service sectors*

All the Continental European countries, that is Austria, Belgium, France, Germany, Luxembourg and the Netherlands are service economies and their service sectors have been expanding further in recent years (Figure 1). Yet there is considerable variation: Austria and Germany have comparatively smaller service sectors due to the strength of their manufacturing sectors, and Luxemburg stands out for the size of its financial and business services sectors. It is followed by France, the Netherlands and Belgium.

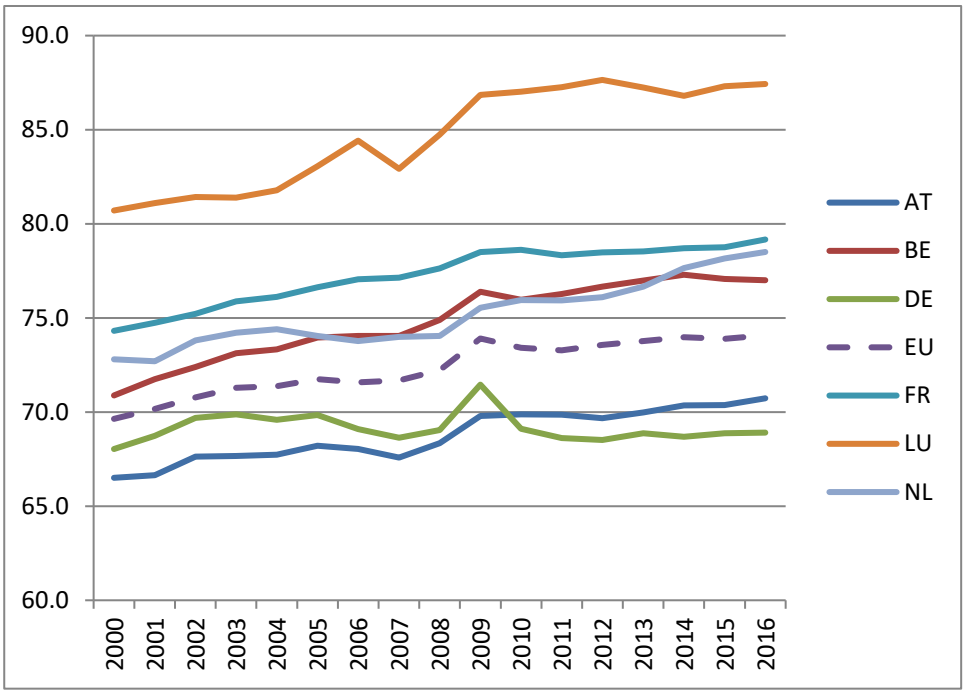
In Austria the service sector has experienced a slow but continuous growth in terms of production in the last decade, with a notable rise in 2008. The German service sector however, after an even bigger increase in 2008 dropped by more than 2% from 2009 to 2010 and remains almost steadily at the 69% mark since then.

In the Netherlands and Belgium, trade, transport & HORECA[1] are the most important industries among the commercial services, worth 25.5% of the GDP in Belgium and 21% of added value in the Netherlands

[1] Hotel/Restaurant/Catering

and whole economy. Business services are worth 15% of the total added value in the Netherlands in and 17,9 % of GDP in Belgium. SMEs determine to a great extent the variety and heterogeneity of the Belgian service economy and have been increasing since 2004 by an annual rate of 2% (Unizo & Graydon, 2017).

Figure 1: Service sector as % of GDP 1000 - 2016



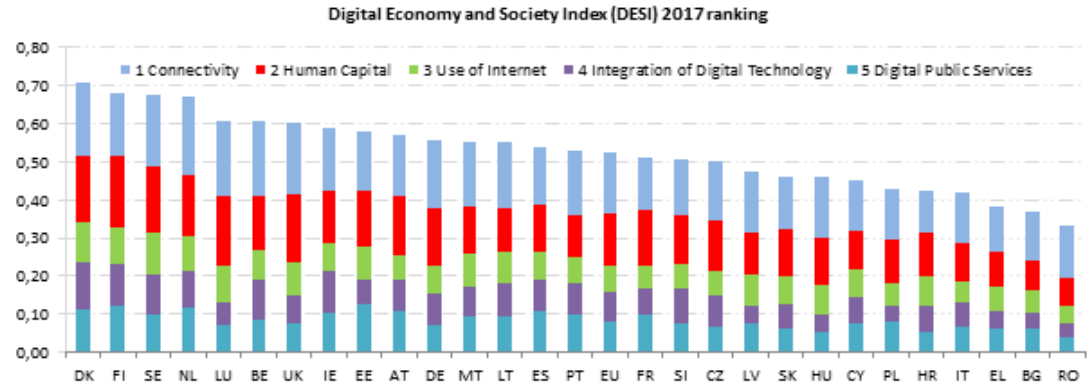
Source: World Bank 2017

Luxemburg is the most distinct service economy with 87% of the total added value of the Luxembourgish economy. Financial services are the backbone of the Luxembourgish service economy Some 150 banks are currently (2014) operating out of the Grand Duchy and the city of Luxembourg is regarded as the leading centre for private banking in Europe. At the same pace, a sharp increase in business services such as real estate companies, law firms and consultancy firms could be observed, founded in the wake of the expansion of financial services in Luxembourg (Gargano, 2012).

2.2 *Digitalisation and the ICT sector*

For the digitalisation of the respective economies, the European Commission's Digital Economy and Society Index provides some indication. Here, the BENELUX rank close to the leading Nordic countries, and Germany and Austria follow behind the Liberal countries UK and Ireland and the Baltic digital pioneer Estonia. France is found just below the EU average. The country is above average considering human capital and e-government but connectivity, the integration of digital technologies in the economy and internet usage are responsible for the low ranking. Austria ranks highly in the area of Digital Public Services (#5) and human capital, i.e. the readiness of the labour force in terms of skills needed in a digitalized economy (#8), but falls back in the area of integration of digital technology by businesses (#14). Germany on the other hand ranks very low in the field of Digital Public Services (#20) but does well in terms of connectivity, i.e. deployment of broadband infrastructure and its quality (#7) and human capital (#8).

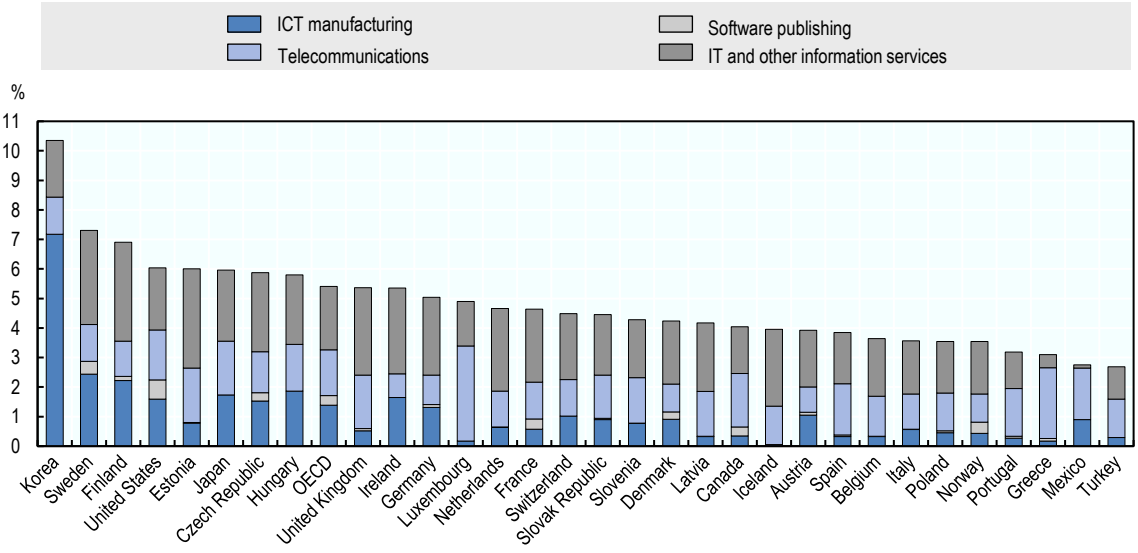
Figure 2: Digitalisation ranking of European countries, 2017



Source; EC 2017

OECD data on value added by the ICT sector show that Continental European countries are below the OECD average. The "leaders" are Korea, Finland, Sweden and the US, followed by Estonia.

Figure 3: Value added of the ICT sector and sub-sectors, 2015



Source: OECD Digital Economy Outlook 2017; dx.doi.org/10.1787/888933584716

The ICT sector in Germany has expanded especially since the financial crisis in 2008. It increased its share the total value added in Germany to 4.7%, the same level as automobile manufacturing (4.7%) and engineering (4.5%) (Roth, Zanker, Martinetz, & Schnalzer, 2015 p. 517). This is similar to the Dutch development: here, the volume of total added value grew by 4.7% each year and the sector is now worth almost 5% of the total economy. Whereas telecommunication companies were the backbone of the growth during the 90's, IT and information services became increasingly important since 2000. In Austria the ICT sector is less important but accounts for 3.7% of added value in Austria in 2014. The conclusion of these numbers is that the Austrian ICT sector, although highly digitalized in some branches to begin with, did not experience a drastic expansion in the last decade. In all countries, the ICT sector, partly in alliances with manufacturing or business services also has become somewhat of a role model and provider of visions for new, digital business models and modes of work organisation.

2.3 *Financial and banking services*

The financial sector has been internationalising for years, and has also been declining after the crisis. It appears that under pressures of consolidation, regulation and a low-interest environment, here digitalisation is felt already. . In Germany, 16% less people were employed in the financial sector in 2013 compared to 2000 and this decline is ongoing (see Roth et. al. 2015; Statistisches Bundesamt 2017, p. 355). It primarily affects low and mid-levels jobs, as back-office functions are automated or partly offshored and branches are closed. Austria provides a similar picture, with more dramatic internationalisation. As the country's banking sector expanded massively into the CEE countries before the crisis, offshoring and consolidation of generic functions in CEE play a larger part (Kirov & Thill, 2015). These tendencies are described as "industrialization" of banking and financial services, including cost-cutting measures, modularization of products, standardization, automation and outsourcing to service providers (Roth et al. 2015, p.41-46). However, automation of banking is closely related to customer self-service through online and increasingly mobile banking. Meanwhile, banks or insurance providers explore new business models begin to invest in new start-ups to diversify their portfolio. German insurance companies for example are investing in the development of online portals that offer comparison or the purchase of insurance packages (Roth et. al. 2015, p. 52). The role of new and disruptive actors in financial services is somewhat ambiguous. Apparently, German banks and consultancies in particular tend to be somewhat wary of collaboration with fintechs (ibid.) and concerned over disruption.

2.4 *Retail and E-commerce*

The retail sector is highly digitalized already, not least through the advances of online sales. The examples of Amazon, Universal or Zalando are omni-present in the study of digitalization in e-commerce. In conventional retail, hybrids between e- and regular commerce are developing, known as "multi-" and "omni-channelling that make shopping possible almost anywhere. However, projecting the recent expansion of e-commerce into the future raises the question how much of the possible shift has already happened (Eichmann/Nocker/Adam 2016). Retail and logistics represent one of the shifts between sectors that are consequences of digitalisation as e-commerce shifts retail work to warehousing and logistics and allows manufacturers to open their own sales channels at low cost. In addition, manufacturers themselves tend to open flagship stores in combination with online shops, advancing the verticalisation of commerce (see Roth et al. 2015).

As in banking, the digitalisation of commerce also means shifting "work" onto customers and consumers. This process can be supported by customer-to customer advice through social media or owned platform functions that make the function of shop clerks as advisors obsolete. Providing comprehensive information on products is no longer a sole duty of workers in a shop, but is shifted to online ranking and rating systems, were customers themselves are judging their purchased products (see Eichmann/Nocker/Adam, 2016).

In the small countries, there is concern that much e-commerce is flowing to foreign multinationals and platforms, even though local retailers also run online shops. 23% of the Belgian SMEs sold online in 2015, which is the 6th position in comparison to other European countries and Belgium is placed second in Europe with 31.3% of the total revenue gained through e-commerce in 2015 (Serv, 2017). The development of e-commerce in Belgian has long been hindered by the general prohibition on night-work. In March 2016, the federal government decided to allow exceptions on this rule, under the precondition that the nature of the work justifies the organisation of night-work. In February 2017, the federal government expanded the possibilities for night-work (and work on Sundays) even further to 'all

enterprises who perform logistic or other supportive services related to electronic trade' provided there is a collective agreement on night-work on enterprise level (ADMB, 2017).

Luxembourg's important role in European e-commerce is more a matter of multinationals using the favourable tax opportunities of the Grand Duchy than of actual business being conducted. However, only 7% of Luxembourgish companies have an online shop for their goods or services. In response, the Ministry of Economy recently launched a national ecommerce platform Letz'shop to boost the urban ecommerce (EcommerceNews, 2016a, 2016b, 2017). The EU's rules on value added tax on ecommerce transactions had significant consequences for Luxembourg. The government suffered a significant loss in tax revenue (from 555 million in 2014 to 383 million in 2017), since it is no longer able to collect the VAT from companies such as Amazon selling books to customers in the EU's 27 other nations, as it did before (Fontanella-Khan,2014).

2.5 *The platform economy*

In all Continental European countries the public debate on platforms is somewhat divided between proponents and opponents. Proponents point at the possible capitalisation of household assets, the (flexible) possibilities it offers to individuals to increase income and purchasing power, and also the possibilities to provide labour market access for people with constraints on their time and mobility, for example in remote regions. Theoretically, platforms also enable formalisation, insurance and taxation of work that is done informally (such as household cleaning). 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. In those countries where household and care services are already partly formalised and somewhat subsidised (for example by "service check" arrangements as in France and Belgium) the sharing/platform economy has the potential to undermine (subsidized) employment often occupied by already vulnerable workers. Considering the available data for platform uses, it is important to keep in mind the different types: Crowdworking platforms intermediate either space-independent services that are delivered virtually or space-dependent services that are more or less circumscribed (such as cleaning or household repairs, then delivery or transport services). Finally platforms may replace a service by the "sharing" or renting of goods, such as accommodation which may or may not entail notable proportions of work or self-service by users.

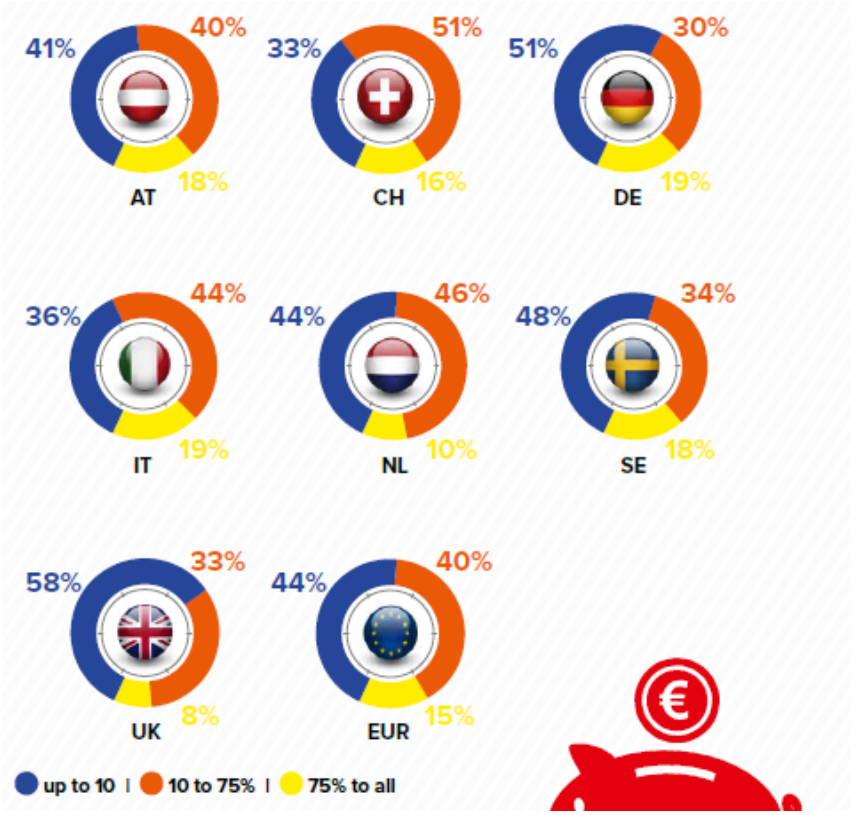
In Germany, crowdworking first received public attention when IBM announced its "Liquid" strategy from 2010 onwards aiming to replace the largest share of regular employment with both an internal and external crowdsourcing platform with globally standardised databases for skills and performance appraisals, project descriptions, project management tools and accounting standards. German IG Metall and ver.di, journalists and management researchers agreed that this would form a somewhat logical "further step in the global competition for work" (IG Metall-Vorstand, 2013, p. 3). However, the project was discontinued and also met with internal resistance by workers and project managers (Kawalec & Menz, 2013). IBM now appears to limit crowdsourcing to small, circumscribed tasks, but still increases internal competition through advanced, web-based performance appraisals. A comprehensive use of crowdsourcing would require considerable standardisation of processes and work packages (modularisation), and their reassembly and coordination would likely require increased management effort and considerable transaction cost (cf. Holtgrewe, 2014). Nevertheless the programme sensitised German-speaking unions to the implications of platform work. In 2017, German IG Metall, the Austrian trade union federation ÖGB and the Chamber of Labour and Swedish Unionen established a trade union platform for platform workers, faircrowd.work, providing general information, helplines and – following

the example of US-activist Turkopticon – reviews of platforms by workers that aim to compensate for the informational asymmetry of platforms' own ranking and reputation mechanisms.

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

The recent surveys on crowdworking by Ursula Huws and colleagues (2017), commissioned by FEPS and UNI Europa, cover Austria, Germany and the Netherlands among the Continental countries. For half or nearly half of crowdworkers, this is an "extra" job and not much of a regular source of employment. Still, one of ten Dutch crowdworkers, almost one of five Austrian (18%) or German (19%) crowdworkers report making more than 75% of their personal income from crowdworking (Figure 4).

Figure 4: Earnings from crowdwork as share of all personal income



Source: http://www.feps-europe.eu/assets/1eeb6041-28d5-4498-b545-dd8afb5a71bd/europeangigeconomy-shortversionpdf.pdf

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. 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. Predictions estimate that this revenue could increase to 500million euro in 2020[2].

Even as numbers are low, the Belgian government recently took some measures to stimulate, and to a lesser extent regulate, the sharing/platform economy. A favourable tax regime was recently introduced. Whereas normally a 33% tax has to be paid, only 10% taxes have to be paid on earnings from the sharing/platform economy, as long as the income is below 5000 euro and no VAT has to be paid. The condition is that this income is generated through state-registered platforms that distinguish the services of professionals and (non-professional) individuals (FOD, 2017). Since 1 July 2016, (only) 12 platforms received an official certificate, mostly in the field of 'house, garden and kitchen' services involving individuals.[3]

The platform economy in Luxembourg is still rather small. On the platform 'Minijobs.lu' the supply of people who want to perform small paid services largely exceeds the number of people in need for small services. An important barrier to develop the platform economy for paid services is the authorization that most independent professional activities require in Luxembourg (Idea Foundation, 2017). As well as in other countries, data on the Dutch platform economy are difficult to find and even more difficult to compare, using different definitions and operationalization of the phenomena. Nevertheless, the available data show that the platform economy is growing fast in the Netherlands. Where only 6% of the population participated in the platform economy in 2006, 23% of the population participated in some form in 2016. The recent study commissioned by UNI Europa and FEPs (Huws et al. 2017) revealed that 9% of the Dutch population had generated some income through platforms, mostly through cleaning or household maintenance tasks (Huws et al., 2017).

A study by Frenken et al.(Frenken, van Waes, Smink, & van Est, 2017) analyses policy implications of some popular examples of the Dutch platform economy. Helpling, a German-based platform for cleaning services insists on its role as an intermediary and refuses the status of employer. It lobbies for the introduction of a third category of employment besides employed/self-employed and proclaims its willingness to offer data to the government which it can use to charge taxes. The Dutch government currently tolerates the app. An interesting example is Dutch Airdnd, where individuals can offer meals to people in their living rooms. Although increasingly popular, concerns have risen about food safety, alcohol abuse, public safety and evasion of taxes. Airdnd itself addressed these concerns and somewhat proactively entered into a dialogue with government. The company implemented some rules on hygiene and limited platform working to more of a hobby: people offering meals can only do so once a week and cannot earn more than 7000 euros a year in this way. Carsharing apps (apart from Uberpop which has been prohibited in the Netherlands) are being encouraged by the Dutch government because of the expected advantages to both the environment and mobility. Hence, government, lease-companies, app-companies, insurance-companies and city-councils signed the 'Green Deal Car sharing' with the goal to have 100000 shared cars in 2018.

These examples suggest that, in line with the current evidence on platform work as mostly a job on the side, one approach of Continental governments in the segment of personal and household services is to

[2] http://www.ideaconsult.be/index.php?option=com_content&view=article&id=48&Itemid=54&lang=nl&projid=377

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

contain platform activities in the segment of supplementary income. While this is arguably a popular approach for both service providers and customers, it may inhibit professionalisation and recognition of platform work as work, and indirectly block pathways of vulnerable workers into more formalised employment.

2.6 *Political debates and Union perspectives*

In Austria and Germany, the policy discourse on digitalisation has been dominated by the term "Industrie 4.0" which eventually was translated across Europe. Large technology providers of both ICT and manufacturing, consultancies and industry associations gathered various processes of change, company and sectoral restructuring and various uses of digital technology into a somewhat vague vision of both globally and regionally networked production, supported and coordinated by networks of sensors and artificial intelligences. Critics consider this more of a political marketing and agenda-setting exercise than a technological revolution in the strict historical sense (Pfeiffer, 2017), and many of the technological developments discussed under this heading have both longer and more incremental histories. However, "Industrie 4.0" it has started a comparably coherent debate on digitalisation and its impact on the highest political level in Germany, into which trade unions managed to make inroads. In both Germany and Austria, the debate resolutely addresses the new opportunities of digital technologies. Trade unions and experts close to them are well aware of the risks to social cohesion, distributional fairness, privacy and well-being (Jürgens, Hoffmann, & Schildmann, 2018; Streissler-Führer, 2016; ver.di, 2015a) but consistently demand adequate societal "shaping" ("Gestaltung") of the uses of digital technologies and political efforts to ensure the benefits are reaped.

The overarching umbrella of digitalisation policies in Germany – the so-called "Digital Agenda" – pools different initiatives and projects dealing with digitalization. ver.di and IG Metall especially succeeded in shifting attention towards the implications of digitalization for employees in both manufacturing and service sectors under the heading of "Arbeit 4.0" ("Work 4.0"). This is a white paper, published in 2016 by the Federal Ministry of Labour and Social Affairs (BMAS 2016). It was the result of a one-year discussion process involving social partners, policy, academics and civil society in a dialogue on the necessary framework needed to deal with the challenges of digitalisation. It put the focus on elaborating ways towards securing good and decent work for all under the preconditions of digital transformations (BMAS 2016, p. 8). Almost simultaneously, the German Boeckler Foundation initiated a similar high-level debate among trade unionists, works councillors and board members of large companies, government officials and academics on "work of the future" addressing specifically the impact of digitalisation on inequality, polarisation and distributional fairness. The report is also available in English (Jürgens et al., 2018).

On digitalization in the service sector, ver.di is the most active player in Germany. Besides a number of position papers dealing with the challenges of digitalisation (ver.di, 2015a), they also conduct concrete projects where they are implementing their strategic guidelines (ver.di, 2015b). Some collective agreements in the ICT sector (e.g. with Deutsche Telekom) cover issues such as working hours, rights to be disconnected and skill development ("Arbeitszeitkonto"). For the "Arbeit 4.0" process, the union created a list of demands that aims to extend and institutionalise the involvement of the social partners and trade unions specifically in policies towards digitalisation: a committee to promote future employment especially in socially needed and automation-resistant interactive services; subsidised part-time training leave, following the model implemented in Austria ("Teilzeit-Bildungskarenz"), further mandatory assessment of new health and psycho-social risks; new employee rights to inavailablity and teleworking; a modernisation of co-determination rights, especially with regard to subcontracting an outsourcing of work, privacy and innovation; improvements in the protection of employee data; social security for the entire working population; a greater focus of digitalisation policies on the service

industries; and, in line with the heterogeneity of the service sector, ongoing industry-specific analyses that also address changes in work organisation and the impact of digitalisation on women and men respectively and on different generation of workers.

In the case of Austria, no high-level strategy as sophisticated as the German white-paper exists that frames the debate on digitalization. Nevertheless, the previous Austrian government issued a "Digital Roadmap" (see: https://www.digitalroadmap.gv.at/), elaborated in 2016 under consultation of experts, citizens and social partners, that fleshes out an overarching vision of a digitalized Austria in the year 2025. However, this did not evolve into a reference paper for public or political debate as the white-paper "Arbeit 4.0" did in Germany, and the Austrian debate tends to be considerably less influenced by social science research. The service sector is only a side-note in the program, appearing in relation to Austria's aspirations as an "innovation leader". Any projects and interventions in Austria related to work and digitalisation were mostly promoted by the social partners and tend still to focus more on manufacturing. For example, with the support of the Ministry for Technology, companies, employers' associations and unions launched the platform "Industry 4.0"[4], an association that provides information, runs a business model lab, case studies of networked production as well as projects dealing with qualifications and skills (Grass/Weber 2016, p. 100).Apart from the trade unions active in the field, the most important actors are the Chamber of Labour and the Economic Chambers (Grass/Weber 2016, p. 92). The Chamber of Labour issued various policy papers and scientific reports measures to be taken up tackling digitalization in the service sector with a particular focus on self-employment and platform work (AK 2015, AK 2016, AK 2016a, ÖGB/GPA-DJP 2015).

Both the German and Austrian programmes have much content in common. "Arbeit 4.0" has a sound legal framework of some re-regulation of the labour market at its core to secure the well-being and protection of workers in Germany, and the Austrian roadmap also stresses the necessity of an adequate legal framework for online platforms and new forms of labour that are observable in this sector (BKA/BMWFW 2016, p.18). Skill development is at the core of measures to be pursued in both programmes. The German white paper emphasises monitoring the demand for qualified employees as to ensure the provision of targeted vocational training programs and to enhance the capacity of steering education towards commonly agreed goals (BMAS 2016, p.104). The Austrians address skill development and interestingly, recognition of informal qualifications. For the self-employed in the service sector access to the social security system and their inclusion in collective agreements are targeted in "Arbeit 4.0" Moreover, the BMAS aims at improving information on platform work, meaning that an empirical database should be created encompassing the (self-) employed in the platform economy (BMAS 2016, p. 175). Other important areas mentioned by both papers are working hours, the development of co-determination, data protection and privacy issues and health protection. It remains to be seen to what extent the newly elected governments (in 2017) in both Austria and Germany will continue these efforts.

France has had a series of reports since 2015 by the personnel manager of telecommunications company Orange (Mettling, 2015), Conseil d'analyse économique (Colin, Landier, Mohnen, & Perrot, 2015) and the government consultancy France Stratégie (Venturi, Charrié, & Lionel, 2016).

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

4 www.plattformindustrie40.at

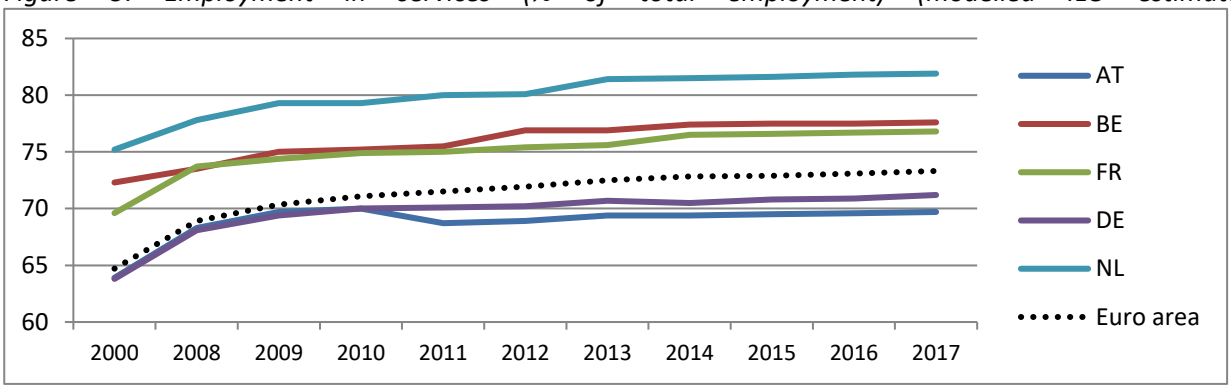
priorities of the Belgian government. With regard to the digital economy, the focus lies on digital friendly regulations (such as the tax friendly arrangement for the sharing economy), an e-commerce platform (see above), e-invoicing, e-signature, e-archiving as well as a strong emphasis on the possibilities of digital technology in health related applications (Serv, 2017).

The government of Luxembourg invests heavily in its digital infrastructure (e.g. 100% broadband internet coverage, low cost of electricity, presence of important data centres). For instance, in 2014 they launched the 'Digital Lëtzebuerg' initiative to strengthen and consolidate the country's position in the ICT field in the long turn. Key targets are a further development of e-commerce, digital content, cloud computing, big data and e-payment. To do so, the initiative aims at bringing together experts from the public and private sectors and from academic circles to discuss specific topics.

3 Service labour markets

Service labour markets in Continental Europe are somewhat varied. One reason for that variety mirrors the size differences in the service sector seen in section 2: Germany and Austria still have more people employed in manufacturing than the other countries.

Figure 5: Employment in services (% of total employment) (modelled ILO estimate)



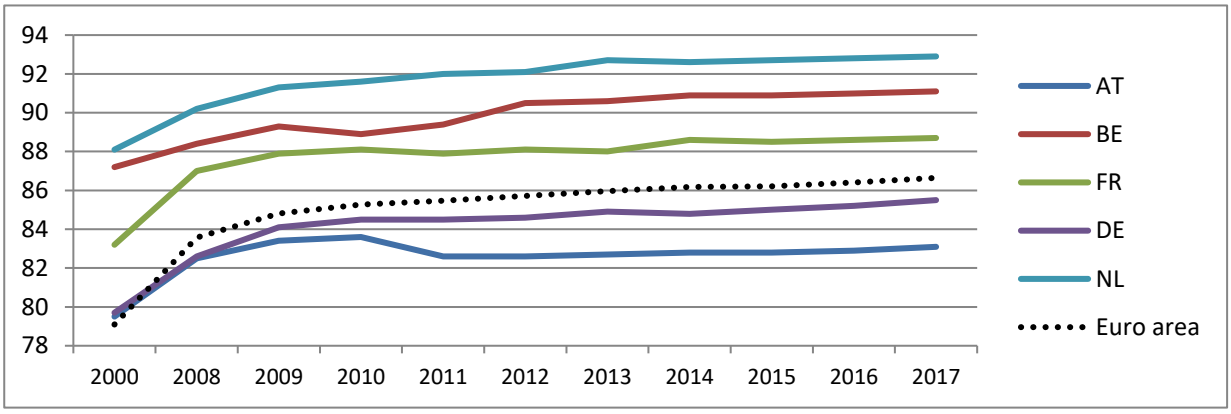
Source: Eurostat

In Austria 72,4% of the employed are working in the service sector, while in Germany the number is even higher with 74,5% (Statistik Austria 2017; Statistisches Bundesamt 2017). Since 2000 the rate of employment in the service sector has grown notably in both countries. Starting from a fairly equal point in both of the countries (63,9% Austria, 63,8% Germany), employment grew by 5,8% in Austria and 7,5% in Germany (World Bank 2017). Arguably, the tendency towards higher employment rates in the service sector will continue in the next decades. The Austrian Institute of Economic research (WIFO) for example predicts a raise of about 211,000 jobs in the service sector by 2020, especially notable in healthcare and social services (+2.1% annually), the IT sector (+4.4%) and consulting, legal and tax services (+2.5%) (Fink/Horvath/Huemer 2014, p. 158). In Luxemburg, employment in services grew since the 1960's. In a period of 50 years, the employment in services was multiplied by 10, from 25900 in 1960 to 280000 in 2010. Interesting is the high number of foreign workers in Luxemburg, especially in services. In 2010, almost 150,000 foreign workers worked in Luxembourgish services. Most of the enterprises in the service sector in Luxembourg (79%) are employing less than 5 people which means that the total employment growth in services is a consequence of an increase in small enterprises (Gargano, 2012).

For women, concentration of work in the services is even higher and feminisation of the services has still increased in the 2000s (Figure 6), but most or all of it in Austria and Belgium consists in part-time work. In the German-speaking countries, women's share in the services is again below average. The reason for

this is most probably the share of business services that support manufacturing and will have a higher proportion of men. German service sector experts Baethge and Baethge-Kinsky (2017) point out that on the one hand, work and employment of the 21st century will be shaped more along the lines of traditionally female types of occupations (service work, interactive work, flexible and atypical employment). On the other hand, these changes are likely to call into question these very divisions of labour, with more men working under conditions previously considered characteristic of women's work.

Figure 6 Employment in services, female (% of female employment) (modelled ILO estimate)



Source: Eurostat

3.1 *Jobs affected by digitalisation*

After the dramatic prognoses of 47% automatable jobs by Frey and Osborne (Frey & Osborne, 2013) and for the European context, the thinktank Bruegel[5], the analysis by Arntz, Gregory, & Zierahn (2016) based on task content as measured by the OECD's PIAAC survey, rather than "jobs", created more balanced estimates. In Germany and Austria, 12% of workers are deemed at high risk with more than 70% potentially automatable tasks. In the Netherlands, 10% of workers are deemed at risk in this way, in France 9% and 7% in Belgium. The authors have few explanations for the differences but say that "the differences across countries may reflect general differences in workplace organisation, differences in previous investments into automation technologies as well as differences in the education of workers across countries" (p. 25). However, considering the countries' variation in digitalisation, and also in work organisation no immediate explanation comes to mind.

In analyses in the respective countries, there is more consensus over the types of jobs that are likely to be affected. Analyses in Germany and France expect financial services, general administration and sales work are expected to decline and financial services are losing employment already (Baethge & Baethge-Kinsky, 2017; Grass & Weber, 2016). Expansion is expected in research- and technology-related occupations, creative and media work, management and the professions, and the largest expansion is seen in the personal service, at both the lower-paid and the higher-paid ends of the spectrum. For transport and logistics, some authors expect far-reaching automation whereas the German study (Baethge & Baethge-Kinsky, 2017) assumes stable shares of employment there. All of this strongly suggests a decline in the mid-level traditional office jobs that are traditionally located in large companies and have been traditional trade union strongholds, and a more polarised labour market in services – unless skills and wages are consistently upgraded.

5 http://bruegel.org/2014/07/chart-of-the-week-54-of-eu-jobs-at-risk-of-computerisation/

3.2 *Skill initatives*

All policy initiatives found in the Continental European countries address the improvement of skills, especially with regard to digital skills. E-skills initiatives are somewhat fragmented in line with national education and training systems but generally address almost all groups of actual and potential workers, from the integration of digital and specifically programming skills into primary school education to advanced further training for specialists. Whereas across Europe, attention is paid to increasing vocational orientation and investment into STEM subjects at school and in tertiary education, some experts in Germany emphasise the potential of the country's still strong apprenticeship-based vocational training system for digital upgrading (Hirsch-Kreinsen 2013).

In early education. France has introduced programming as a subject in schools and "Digitalisation Sciences" have become an elective subject. Both in Germany and in Austria there has been high expenditure for introducing digital equipment to schools but currently, initiatives are based on proactive schools and other institutions, with standardized (compulsory) skill building in early education missing. In the Netherlands, the focus is also on „information literacy" and media skills (Grass & Weber, 2016)

In Germany, both „Arbeit 4.0" and the „Future of Work" Commission argue for a systematic competence monitoring that identifies key areas which will be of relevance in future work scenarios. The „Future of Work" Commission also urges the creation of a dedicated advanced vocational training agency which should offer counselling and advice on further training to anyone in need of it to prevent job loss. It discusses the possibility of merging different forms of funds available for vocational and educational training into a single instrument. This would potentially increase accessibility and close gaps in the existing funding schemes. Finally, the panel calls for an intensification of cross-company and transferable skills training, aiming at the creation of interconnected vocational training structures. This measure would especially address SMEs which often cannot contribute to the up-skilling of their employees in a sufficient way (Jürgens et al., 2018).

France has introduced a „personal activity account" to ensure that workers can retain their social rights and entitlements across jobs and employment statuses. Through both employed or self-employed activity or government awards based on needs, for example low skills, citizens collect points, which can be used for e.g. educational activities, financial support for starting a business or leave for family obligations or social commitments. The points are preserved if an individual's employment status changes, so that they can access to benefits in less stable periods of employment. The country also reports an interesting initiative to provide the low-skilled and vulnerable with digital skills. The so-called Grand École du Numérique, a financial support network for 170 certified educational institutions that train skills for the digitalised labour market has committed itself to reaching at least 30% of women and 50% of youths with low qualifications who are unemployed among its participants (Grass & Weber, 2016).

In addition to the provision of digital skills, Baethge and Baethge-Kinsky (2017, p. 59) suggest that the new and expanding areas of interactive and personal service work also need forms of professionalisation, regulation and representation that do justice to the specific character of service work. This is an institutional challenge, and means addressing and sustaining workers' service-specific skills as necessary autonomy and sense of situational adequacy of interventions and interactions as well as their material interests and customers' needs and interests in service quality that are not necessarily fulfilled by the market.

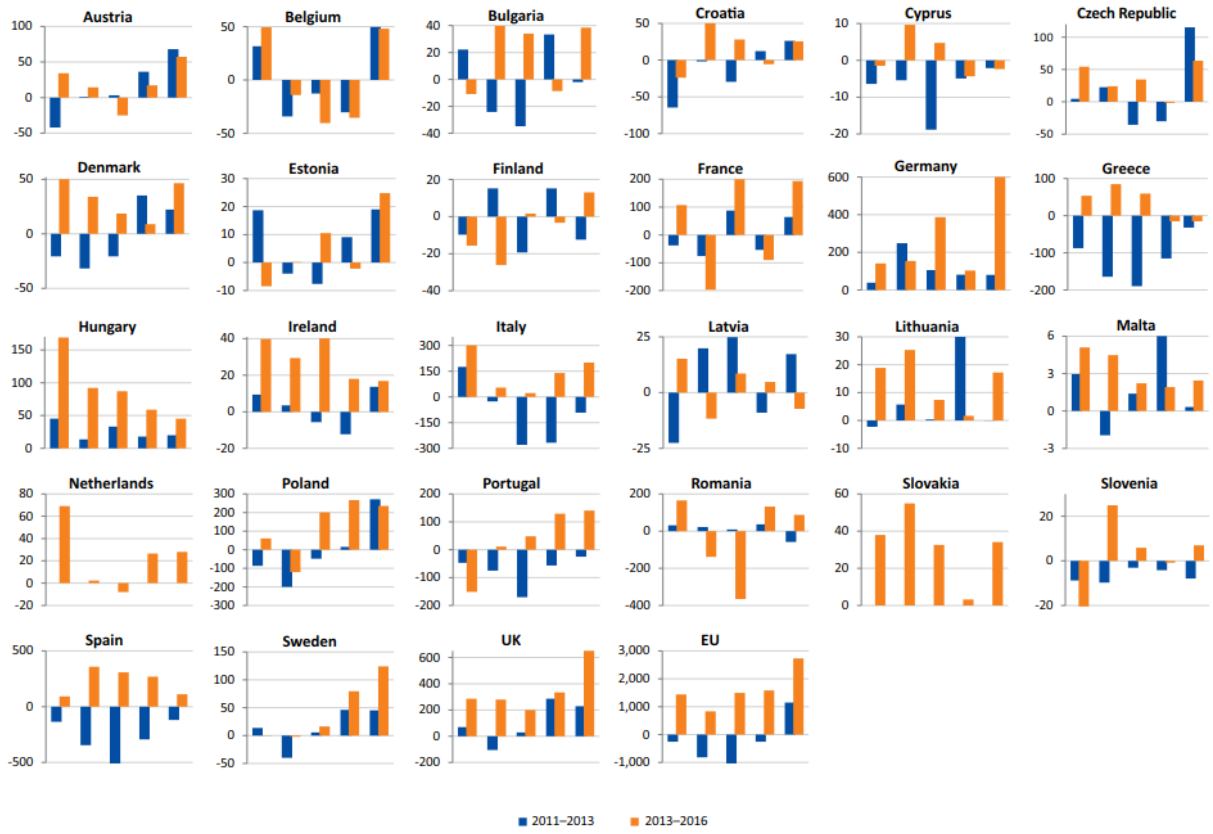
3.3 *Polarisation and low-wage work*

At present, polarisation of labour markets is not a consistent picture in Continental Europe. From 2011 - 2016, only Belgium s shows a clear pattern of employment polarisation with expansion in the lowest- and

highest paying quintiles of jobs. Indeed, the amount of low skilled jobs increased slightly in the period between 1993 and 2013 (Vanderbiesen, 2015).

In the Netherlands, we find some downgrading of jobs and wages from 2013 – 2016 as growth in the lowest-paying jobs is disproportionately high. Germany has some upgrading which even increases in the period from 2013-2016. Austria sees upgrading from 2011 - 2013 but a more polarised pattern from 2013 - 2016 as the lowest-paying quintile has also gained in employment. In France employment expansion also at the medium level, in the third job-wage quintile.

Figure 7: Employment change (in thousands) by job-wage quintile, EU member states Q2/2011-Q2/2016



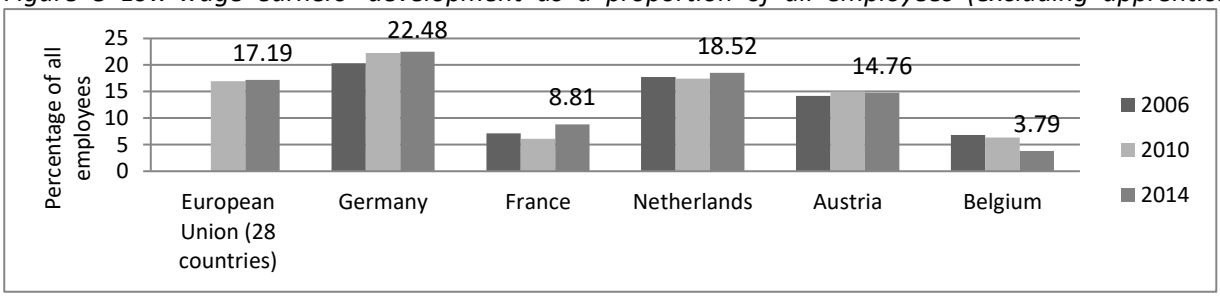
Source: Fernández-Macías, Hurley, & Arranz-Munoz, 2017, p. 16

These changes in the employment structure cannot be simply ascribed to digitalisation, and they show that European labour markets are not necessarily converging on one trend. However, the consistent expectations of automation impacts in the mid-level occupations need to be taken seriously nevertheless. Recommendations to build up digital and other sustainable skills in the working populations and to orient people entering the labour market or changing occupations toward the services that are likely to expand are somewhat obvious. In many cases the wage levels and societal standing of interactive and personal services need improvement as well as these services are often central to societal well-being and social cohesion.

At present, the proportion of low-wage earners (who earn two thirds or less of the national median gross hourly earnings) in the Continental-European countries is a related instance of variation. Germany has been somewhat notorious for its large low-wage sector since the 1990s. In 2014, before the introduction of a national minimum wage, has had 22.48% of all employed in the low-wage sector. The OECD reported

that the minimum wage has not affected employment[6] but as minimum wages are still at the low end this may not immediately affect the share of low-wage earners. In the Netherlands with 18.52% the proportion of low wage earners is also above the EU average. Here, the wide-spread use of part-time work plays a part. Austria, France and Belgium remain below the EU average. These countries have „inclusive" industrial relations systems with wide coverage by collective agreements that clearly make a difference (Appelbaum, 2010). Of the four countries, the proportion of low wage earners has only declined in Belgium in the period between 2006 and 2014, whereas in the others it has risen or remained fairly constant without indication of improvement.

Figure 8 Low-wage earners' development as a proportion of all employees (excluding apprentices)



Source: Eurostat data on Quality of employment; extracted on 16.02.2018

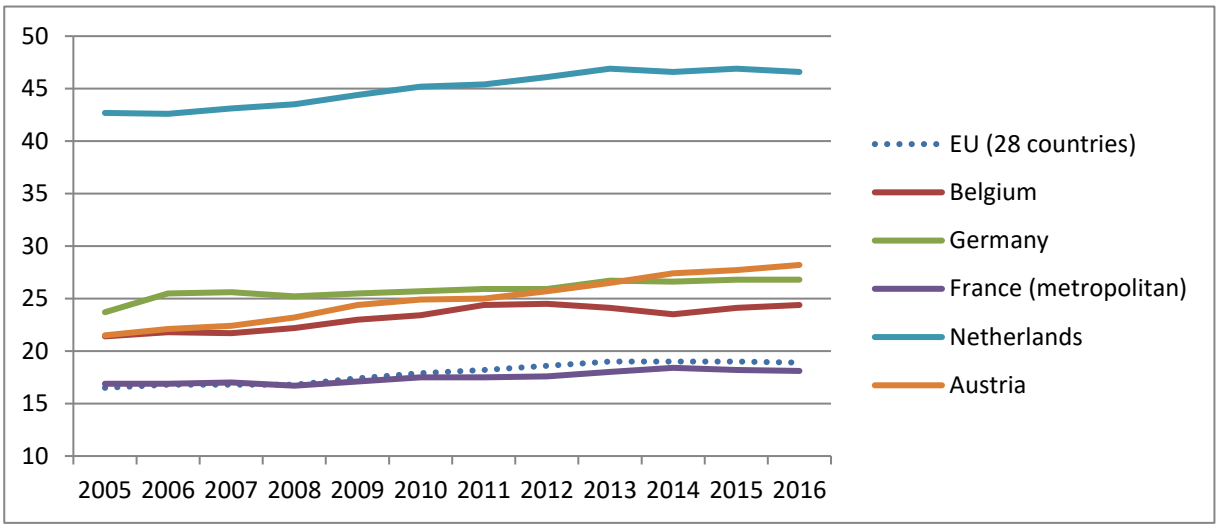
3.4 *Flexible, atypical, precarious*

Services, labour-intensive as they are, use flexible employment to a larger extent than manufacturing in order to adapt staffing levels and availability to customers' requirements. Although digitalisation renders more services space-independent, the interfaces with the physical world (for example logistics in e-commerce or platform-based intermediation and delivery of on-site services) require flexible modes of working on the ground as well. The actual forms of that flexibility are, however, contingent on the countries' respective employment regime, recent years' labour market reforms, and the various arrangements of vocational training, the welfare state and the education systems that influence the availability of service workers, especially in the lower-skilled services (Gautié, Westergaard-Nielsen, Schmitt, & Mayhew, 2010). They also depend on each country's gender regime: the divisions of household and care work between women and men in private households, the public sector and private services. These societal arrangements shape both supply and demand in the service labour market and are shaped by the labour market in turn. The Continental European countries are known as "conservative" gender regimes where the traditional "male breadwinner" arrangements are gradually – and to a varying extent – being replaced through the increasing and more continuous labour market participation of women of all age cohorts (Walby, Gottfried, Gottschall, & Osawa, 2006), but retain the well-known asymmetries in wages, precarity and perspectives. France, with its comprehensive childcare and high share of women working full-time, is an exception among Continental welfare states.

The effect of this has been shown in a comparison of retail employment: It is staffed by women part-timers in Germany and Austria whereas in France with its more comprehensive childcare and higher full-time employment of women, full-time work plays a larger part (Jany-Catrice & Lehndorff, 2005).

[6] http://www.oecd.org/germany/Employment-Outlook-Germany-ENG.pdf

Figure 9: Part-time as a percentage of total employment.



Source: Eurostat, EU Labour Force Survey

Nevertheless, part-time work is not necessarily precarious provided it has an open-ended contract and a living wage. On the more precarious end we find arrangements such as fixed-term contracts, marginal part-time work or zero-hours contracts and also (bogus) self-employment, and although there are few comparable data on these, it is safe to say that countries have quite different profiles of these care (Directorate General for Internal Policies, 2016; Mandl, Curtarelli, Riso, Vargas, & Gerogiannis, 2015).

"Marginal" part time work carries some exemption from taxes or social security contributions[7], and is common in Germany, Austria and the Netherlands. in Belgium. relatively low levels of flexible employment exist. Fixed-term contracts, contracts for a specific work, agency work, student work, seasonal labour and other forms of employment with a temporary character only make up 9.2% of all labour contracts in Belgium in 2016 (OESO, 2016). In comparison to 2000, no increase in flexible employment is stated. However, when focusing on the service sector, a certain polarization is measured. Occupational groups of managers and professionals have significantly fewer characteristics of precarious work, whereas workers in retail or sales have a significantly higher risk of precarious working conditions. Young adults, women and low skilled or lower educated workers face an additional higher risk (Lamberts et al., 2016). Zero-hours contracts have increased in the Netherlands in particular and apart from retail and hospitality are also used (in analogy to agency work) to fill in staff shortages in already-flexible part-time functions such as mobile elderly care (Mandl et al., 2015). In Germany, working „on demand" appears to be connected to formal marginal or short-hours part-time employment and is estimated at up to 1.5 million workers[8] in retail, trade or catering. France has seen an increase in fixed-term employment from 5% of all jobs in 1984 to 13% in 2016 with increasingly shorter duration, sometimes of a week or a month (Directorate General for Internal Policies, 2016). They affect jobs in administration or maintenance such as administrative HR staff, corporate receptionists or computer installers. A general pattern of

[7] Individuals who work fewer than 15 hours per week and due to their low income are not subject to unemployment insurance , health insurance or the statutory pension scheme (Geringfügig Beschäftigte; https://www.eurofound.europa.eu/efemiredictionary/marginal-part-time-workers)

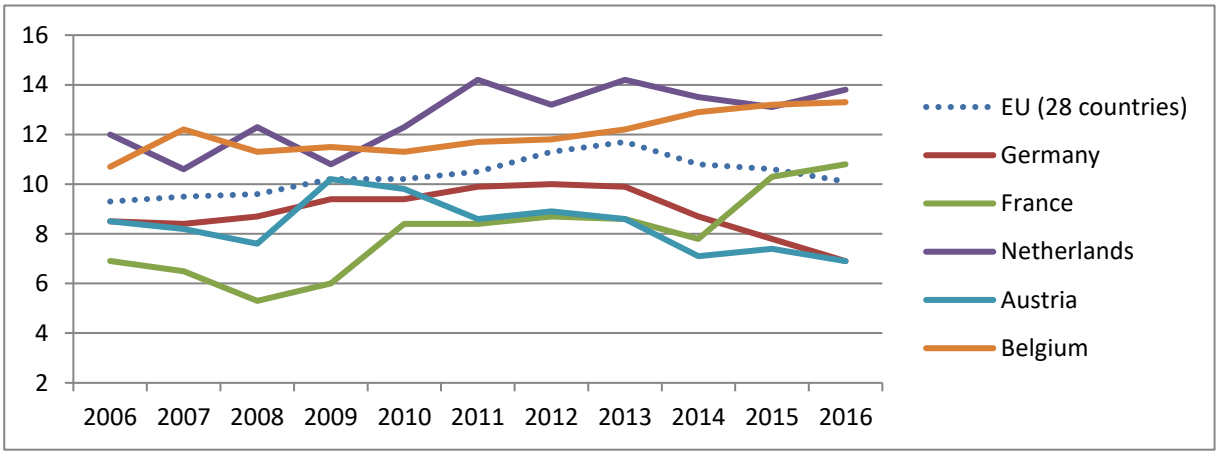
[8] http://www.dgb.de/themen/++co++ce4d192a-202e-11e7-a864-525400e5a74a

"companies cutting payroll" by outsourcing generic services, legal and financial functions is found. In retail, concentration of large stores has increased salaried employment. In the service sector and the trades, self-employment is also increasing whereas traditional forms of self-employment and small businesses in farming and food production are declining. [9]

In 2015, Belgium implemented two new forms of casual work in the hotel and catering sector and expanded to retail in 2017. In hospitality, this was introduced as a compensation for the obligation for horeca firms to use a so-called 'white cashier' that makes it impossible to fraud with the number of clients served and to use undeclared work. The employer federations of this sector argued that this requirement would considerably increase their costs and lead to massive bankruptcies and therefore they requested compensations in terms of a more flexible workforce. At the same time, this measure is supposed to resolve the enduring labour market shortages of this sector. Trade unions are opposed to flexi-jobs as they fear that flexi-jobs undermine regular employment. Even more, trade unions point out that flexi-jobs do not built up any pension rights, do not guarantee an end of year bonus nor provide any holiday pay. Possibly the most threatening feature is the agreed hourly wages of flexi-jobs workers which are lower than the collective minimum wages in the sector.

3.5 *Solo self-employment*

Figure 10: Percentage of solo self-employment: self-employed without employees as a share of all persons in employment



Authors' work; Source: Eurostat data on Quality of employment; extracted on 16.02.2018

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

[9] http://www.strategie.gouv.fr/english-articles/flexibility-rise-among-frances-self-employed-and-salaried-workers

Even though crowdworking platforms are currently mostly used by workers for supplementary income, they are expected especially to increase the precarious and low-wage segment of the self-employed. This lets policy in all Continental countries consider the regulation of solo self-employment in a new light. Trade unions in Continental Europe have traditions in representing self-employed workers already, especially in the media where freelance work has been a recognised part of the professions (Haake, 2017) – but with digital technologies and liberalisation of the media sector, these well-established agreements are at risk through more individualised and fragmented modes of working. In Austria in the 2000s, call centre workers were supported by GPA-djp's „work@flex" initiative (a support and advice hotline) as companies attempted to hire them on a freelance basis (Stern, Schönauer, & Holtgrewe, 2010). Indeed, audits by social insurances found that legally, customer service work had to be done by employees. Still, trade unions often struggle to represent the new groups of workers as dependent self-employed are often regarded as a threat to regular employees (Heery, 2009). On the other hand, self-employed themselves often have negative attitudes towards trade unions, as they see trade unions as a threat to their autonomy and flexibility. Nevertheless, employees and (dependent) self-employed without employees often share the same challenges such as working conditions, wages, and social rights and one group can be instrumentalised to put pressure on the other. Nowadays, trade unions discuss the services they can offer to these new groups of self-employed (negotiate collective agreements on sectoral or national level, legal advice and counselling, formation and vocational education) and how they can organize and unite them (in separate professional federations, incorporating them in the existing structures or on interprofessional level) (Valenduc, 2017a; 2017b; Haake 2017).

4 Company strategies and work organization

Technology does not determine work organisation but enables various scenarios along the lines of either more collaborative and empowered modes of working or more standardised and regimented ones. These two paths, known as the "high road" or "low road", are not new but have been observed throughout various technological waves and across sectors. Either way, digitalisation means that more service work can be conducted remotely, from home, at the customer's site or when travelling. Hence, flexibility or agility (a term borrowed from software development that means working in a way more responsive to ad-hoc demands of the project or problem at hand or the customer) may mean different things: increased self-determination of workers or increased and multiplied pressures and "boundaryless" working. The actual outcomes have been shown to be contingent not just on individual company strategies but also on companies' position in the respective value chain and the strategies they are pursuing – but also on each country's specific institutional environment, industrial relations and vocational training system.

4.1 *Offshoring and outsourcing*

Whereas company restructuring generally has first been investigated in various manufacturing sectors, it also shows effects in services. Both generic and specialist services have been outsourced, and this is one part of the expansion of service sectors across Europe in the last decades (Holtgrewe, Kirov, & Ramioul, 2015). Through domestic outsourcing of services, wages and employment conditions have been mainly shown to decrease. The Global Call Center Industry project showed that in the industrialised world, providers of outsourced customer services had generally lower wages and poorer working conditions than inhouse services (Batt, Holman, & Holtgrewe, 2009). This is not least due to weaker interest representation of the newer, more precariously employed workforces in service provider companies (Doellgast, 2012; Doellgast, Sarmiento-Mirwaldt, & Benassi, 2016). A recent study using German social security records was able to show the same mechanism for the entire German labour market: the outsourcing of generic services such as cleaning, catering, security and logistics decreased wages in these

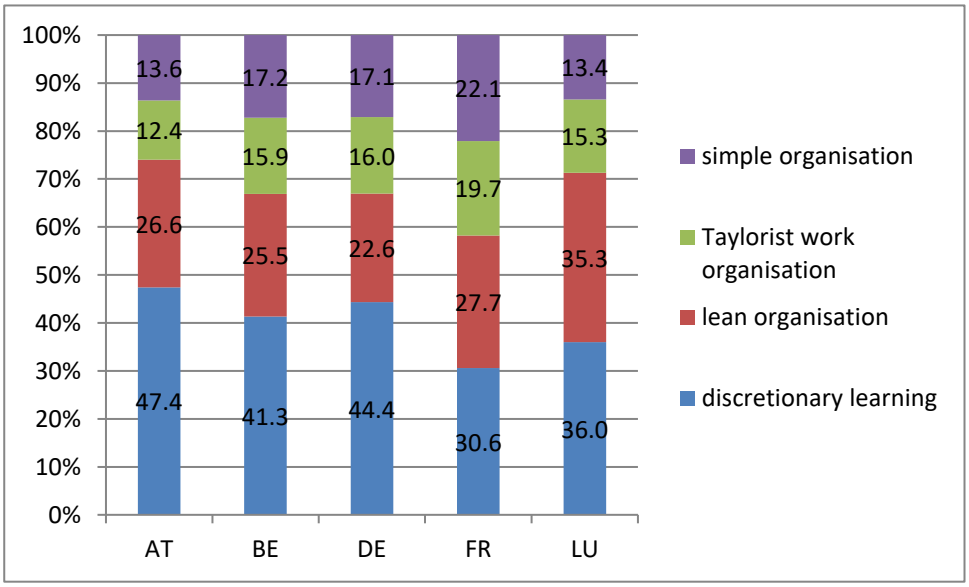
functions by 10-15%. Services outsourcing alone accounted for some 10% of the increase in German wage inequality since the 1980s (Goldschmidt & Schmieder, 2015).

In outsourced services, clients have considerable influence on work organisation and working conditions –challenging for works councils' rights and their possibilities of co-determination or participation. For example, a transnational provider of call and service centre services in Germany investigated by Daum et al. (Daum, Holtgrewe, Schörpf, & Nocker, 2018) leaves decisions on workers' discretion over wording and actual problem-solving, and also on incentives to its clients to a large degree. Other providers of customer service or ICT services rely on generally standardised processes and tight controls (Feuerstein, 2013). In either case, clients of outsourced services tend to favour tighter regimentation and control and retain the more empowered modes of customer contact inhouse. In the ICT sector, a recent study commissioned by UNI and also covering German- and French-based ICT multinationals finds that ICT offshoring and outsourcing is an ongoing and dynamic process that has become more "systemic", with dominant companies retaining strategic control over governance and integration (Holtgrewe & Schörpf, 2017). This is no longer mostly a phenomenon following old colonial patterns. In ICT and customer service, CEE and after the Crisis, also Portugal and Greece have emerged as offshoring destinations for French and German companies.

Digitalisation is on the one hand mostly considered an enabler of further outsourcing and restructuring up to the use of crowdworking with platforms or new intermediaries also providing tools for managing "crowds". On the other hand, in some sectors, for example in both Deutsche Telekom and the French telco multinational Orange, there are recent examples of backshoring of customer service as the more standardized functions are shifted to app-based self-service by customers and the quality of the remaining, more complex tasks gains importance (Daum et al., 2018; Doellgast et al., 2016)

4.2 *Overall surveys: working in Continental European countries and services*

Figure 11: Distribution of types of work organisation



Source: Lorenz 2015, p. 443 based on the EWCS 2010.

Lorenz' analysis of the 2010 European Working Conditions Survey (Figure 11) shows different country-specific profiles of work organisation: Germany and Austria have the largest shares of the "discretionary learning" type associated with the "high road" which is considerably less represented in France. France

shows both the most "simple" and "Taylorist" forms of organisation. In general, service industries show above-average shares of "discretionary learning" organisations in utilities, financial and information services and the creative industries, whereas commerce and hospitality are below average (Lorenz 2015, p. 443). Financial services and utilities also have high shares of "lean" organisations that are knowledge-intensive but with less discretion.

Based on the results of the EWCS in 2015, a similar typology of job types in Belgium was created (Vercruyssen, Van Gyes, 2017; Lamberts et al., 2016) and found that there, any service occupations belong to the less favourable job types. A first job type clusters part-time jobs where workers experience insufficient support and do not perform any teamwork. Wages are mostly low. They have simple, but not repetitive tasks and the location changes often. Another job type typically related to service jobs is characterized by heavily repetitive and also flexible labour. Those workers combine high work intensity with often heavy emotional strain and limited social support. Working hours are often atypical and they experience little autonomy over their work. On the other side of the spectrum, managers and more knowledge-intensive professions experience much better working conditions with high levels of autonomy, good career opportunities and good representation.

A recent analysis of the "Good Work" survey implemented by the German trade union federation (DGB), a survey of a representative sample of the German workforce, explored the overall job quality situation in the service sector on behalf of ver.di (Roth 2016). 83% of the respondents from the service sector perceive their work as affected by digitalisation, with a particularly high impact on employees being involved in highly complex activities and management positions (Roth 2016, p. 8). Unsurprisingly, the industries most affected are law and fiscal advice (97.7%), IT-services (96.1%) and insurances (95%), whereas social services (67.3%) and industrial cleaning (41.7%) are the least digitalized sectors (Roth 2016, p. 19). Workers see the following topics as most critical: work load and work intensity, mobile work, working hours and reachability, monitoring and surveillance, co-determination and discretion, work-life balance and skill development. Workload is an issue especially in ICT: 65% of workers in the ICT sector are under time pressure frequently and 47% state that this is due to digitalization (Roth 2016, p. 51). In the financial sector, standardization and automation are crucial processes that affect work organization, especially in combination with IT-generated sales pressure, performance targets and work monitoring

4.3 *Remote working*

Remote working appears as both a problem related to increased work pressure and partially a solution. 24% of the respondents of the German "Good Work" survey indicated that they are expected to be available outside of regular working hours. This is true across the whole service sector and not only for people working in highly digitalized environments (Roth 2016, p. 39). A study of the cleaning sector in Austria provides a possible explanation: when staffing levels are low and customer demands intervene, frontline managers in cleaning companies manage teams ad-hoc flexibility through calling workers in at very short notice, often in the early hours of the morning or at night (Sardadvar & Holtgrewe, 2017).

However, there is a notable difference: while almost every other employee a highly complex job needs to be available outside regular working hours (48%), this affects only 18% of people working in unskilled jobs (Roth, 2016). While digitalization is surely partly responsible for this increase in flexibility demands, employees who are confronted with such demands also tend to see digital technologies as more supportive for their work-life balance than people who are not confronted with the demand for flexibility (ibid.). The reason for that may well be that for 35% of the respondents to the "Good Work" survey, the increase in work load due to digitalization led to more work done from home (Roth 2016, p. 8). While this allows for some more flexibility and compatibility with family obligations than spending long hours at the

office, it is a challenge for unions and workers in terms of work-place regulations, health and well-being issues and also recognition of working time.

In a qualitative analysis of home- and mobile working, Menz (Menz, 2017) finds that those workers satisfied with "boundaryless" and intertwined modes of working are generally younger men in higher management positions. Others suffer from the pressure and/or need to make decided efforts to draw boundaries to availability. The author emphasises that "availability" is not unilaterally imposed by companies but has a subjective side of workers' perceived norms, routines and life situations which require varied interventions if work is to be designed in a sustainable way.

Recent company agreements, for example in Germany and France[10], aim to regulate availability of workers and establish a "right to switch off" electronic devices. They oblige both management and co-workers to respect these rights, for example send messages later. Technical enforcement of such measures through pop-up windows admonishing senders of evening e-mails is considered. Such initiatives need to be aware of the complex interactions of company policies and the flexible and diverse work habits of workers in diverse life situations.

4.4 *Work monitoring*

A technological issue that is relevant to employees in the service sector is work monitoring. The possibilities for employers to monitor work tasks and to set work targets has increased using new software, the Internet of Things (IoT) or assessing new data sources and communication and behaviour patterns. Considering all these new ways to monitor people's work tasks, it does not pose a surprise that 47% of service sector employees state that they are experiencing an increase in work monitoring (Roth 2016, p. 35). Looking at the sub-sectors, in seven out of 16, more than half of the questioned employees see an increase in monitoring, with financials services (66%) and logistics (63%) having the highest numbers (ibid.). Contrary to the developments in terms of working time or work load, the trend for increased monitoring is more visible in low-skilled job profiles, where 49% of the respondents indicate an increase, compared to 40% in high skilled jobs (ibid.). Interesting is that the people who generally estimate their job as being of poor quality, also tend to experience their tasks as being monitored to a higher degree (60%) than people who describe their job as "good work" (40%). Another issue that is connected to monitoring is performance appraisal, where employers use digital means to assess the performance of employees and to set targets for future work steps. Setting these performance targets through the use of software or other IT services can potentially lead to unrealistic work targets which are plainly unfulfillable.

Among works councillors, the ver.di innovation barometer 2015 showed that 70% of representatives in the service sector see increased reachability of workers as the biggest issue, followed by privacy and data protection rights (57%), mobile working (53%) and atypical employment (37%) (Brandl/Bsirske 2016, p. 21). In Germany and also Austria, privacy and data protection is one of the areas where co-determination rights extend the furthest and works councils are entitled to use external expertise and advice. Questions of privacy and data protection thus absorb considerable parts of many works councils' activities and are an area of high union influence which can be leveraged to get a say in other areas.

[10] https://www.eurofound.europa.eu/observatories/eurwork/articles/france-first-company-level-agreement-on-digital-transformation-signed-at-orange

4.5 *Innovative work organization*

As we have seen, even in the Continental countries with strong traditions in favourable "high-road" and skilled work organisation, digitalisation does not necessarily favour improvements. "Workplace innovation" initiatives there also tend to be overrepresented in manufacturing. Still, there are notable efforts being made. Interestingly, the French Mettling report (Mettling, 2015) emphasises the need for new forms of project-based collaboration in companies which would require a break with established hierarchical forms of management control. Managers would need to change their role to a more enabling and supportive one.

In Belgium, work organization experienced extended attention in recent years. The federal minister of work called out 2016 as the year of 'sustainable work' and different initiatives were launched. Flanders Synergy[11], established in 209 and funded by the Flemish government supports companies to experiment with new forms of work organization such as autonomous teams. At the same time, it organized training programs for consultants and academics. Besides enterprises in the industrial sector, service companies are reached as well, for instance, projects in the field of health care and education are momentarily being carried out. Each project consists of intensive consultancy and support focused on organizational change based on the principles of high performance workplaces (Huys et al., 2013). However, it could be argued that Flanders Synergy mainly supported the companies that were already convinced of innovative work organization practices.

German trade unions have been traditionally involved in the various programmes of research and development of workplace innovations funded by the German Science Ministry and involving both technical and social sciences, company users and social partners (Jostmeier, Georg, & Jacobsen, 2014). These programmes pay incresing attention to digitalisation. Ver.di participates in the "Cloud and crowd" project, a research-intensive workplace innovation project addressing various use contexts of cloud-based working such as the transformation at large, crowdworking platforms and other "agile" forms of working, skill needs for cloud-based software development and the regulation of solo self-employment and platform work (Boes & Langes, 2017).

4.6 *Job quality and interest representation*

The issues described above are already being tackled on trade unions' and policy level in different ways. For example, concerning working hours, the "Arbeit 4.0" white paper describes three main goals for tackling changes in this area: First, protection against excessive demand and dissolution of boundaries (e.g. private-business). Second, health protection and third, ensuring more flexibility benefiting employees and allowing a higher level of self-determination (BMAS 2016, p. 116). This is not only relevant for short term arrangements regulating day-to-day working hours, but is also valid in long-term perspective. As personal careers become more fluid and skill development more important, company centred long-term accounts, saving overtime for a sabbatical, a gradual retirement or other longer leaves become a strategy to offer tailored solutions for individual demands, harmonizing employer and employee requirements (BMAS 2016, p. 123). However, these would need to be tailored to more discontinuous careers or transitions between employment statuses.

A crucial leverage for Austrian and German trade unions to mitigate the most hazardous by-products of digitalization is co-determination. Considering that comparative service research (Batt et al., 2009;

[11] www.flanderssynergy.be

Holtgrewe et al., 2015) and also the results from the "Good work" survey show that more co-determination leads to better results in terms of job-quality, unions argue that it is also in the interest of employers l to ensure co-determination in as many areas of digitalization as possible (AK 2015, AK 2016, AK 2016a, ÖGB/GPA-DJP 2015, Müller & Skrabs 2016, ver.di 2016). To cover the ever-changing issues that are relevant in digitalization, a continuous adaption of instruments of co-determination is necessary (AK 2016). Concrete demands that have been established by employee representatives include the extension of employment legislation towards all dependent employees (e.g. crowd-workers and the solo-self-employed) rather than creating more exemption and distinct statuses in between employment and self-employment, extending the reach of collective agreements, establish paid educational leaves and participation in the implementation of the European data protection regulation (AK 2016). Considering the wide range of job quality within and between service industries, the focus on co-determination should not stop at the company level, but must reach for influencing and shaping the service sector (Brandl & Bsirske 2016, p. 16).

5 Conclusion

The Continental European countries show quite varied profiles of their services but under the perspective of digitalisation, the issues appear to converge. Service markets are being restructured, with increasing dominance of mostly US-based platforms, shifts between sectors and new relations of dominance in service value chains. These relations of dominance are not established yet: we cannot know where and how incumbent banks will be disrupted by fintech companies or the payment services offered by platforms with origins in other sectors, or whether they will be able to retain their central position in financial services. In retail, robust and standardised consumer goods are being bought online, fashion retailers experiment with hybrid modes of selling, but digitalised grocery shopping still has logistic difficulties.

Service labour markets and forms of flexible employment are heterogeneous but further polarisation is certainly not unlikely. The alternative is a decided upgrading of wages, skill levels and job quality. This will require decided efforts of social partners, policy and civil society and should not focus on a narrow notion of digital skills. These skills and learning offers need to be embedded with workers' existing competencies and capabilities – especially where the low-skilled and vulnerable are concerned (Krenn, 2000). Investments need to be distributed between employers, workers and the public.

The Continental countries mostly have experience in favourable and innovative forms of work organisation. However, the outcomes may remain restricted to exceptional beacon projects when increased price-based competition and ongoing restructuring heighten the pressure on companies to cut cost and standardise and monitor work in pressurised ways.

The attention that policy is paying to digitalisation in recent years thus is necessary, and trade unions are clearly gaining ground in many of these debates. Increased collaboration and mutual learning among unions within and between regions is essential to address the intertwined challenges of digitalisation, globalisation and (not least) sustainability.

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