SERVICES RESEARCH ALONG THE SERVICE PROCESS: An overview study to support UNI Europa’s services policy project

Report

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Vienna, November 25, 2015

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1. **GENERAL INTRODUCTION: SERVICES IN THE 21ST CENTURY**

1.1. **The context**

UNI Europa’s services policy project aims to develop feasible European policies to develop the European services industry into an engine of sustainable and job-rich growth that provides inclusive quality employment to all groups of workers and innovative quality services to European customers and clients. Indeed, the European Commission, for example in its communication “Towards a job-rich recovery” (COM (2012) 173) also expects further employment growth centrally from the service sector, in particular at health services, information and communication technologies, and personal and household services – as well as the category of ‘green jobs’, which are partly service jobs as well, from retail to consulting and engineering services. During the crisis, employment in both public and private sector services has fared considerably better than manufacturing and construction, but austerity-driven cuts in public spending have a negative impact that is not compensated by the private sector (Hurley et al., 2013).

However, services in Europe show the tensions of European labour markets in particular ways. Until 2007, some expanding service sectors showed job quality measures well above the average (such as business services, ICT, health and social work education, public administration and financial intermediation). Others were expanding as well, but showed poor job quality, as in retail, “other” services, hotels and restaurants or private households (Holman and McClelland 2011). Indeed, these low-paid service sectors and occupations in particular have been shown to accumulate risks and vicious circles of working poverty, precarious and atypical employment, fragmentation of jobs due to outsourcing and lengthening value chains, and health and safety risks. Nevertheless, sectors with higher job quality also report increasing work and performance pressure, standardisation and industrialisation, and insecurity due to ongoing restructuring and/or increasing use of self-employment or freelancers. For these reasons, the Commission’s 2010 “Agenda for new skills and jobs” (COM (2012) 682) recognised that in recent years the increased use of atypical employment and the diffusion of new forms of work without appropriate working conditions had put downward pressures on job quality, and the 2012 “Employment Package” urges Member States to establish decent and sustainable wages, to avoid “low-wage traps” for workers and prevent the excessive use of non-standard employment.

This appears all the more urgent when realising the part of (both private and public) services in addressing societal challenges. The “greening” of the economy requires service as well as product innovations. With changing family structures and a wider participation of women in the labour market, the old and the young (and basically everybody) fulfil their needs for care, provision of basics such as food, health and well-being, a clean environment, cultural and social activity and social inclusion partly and increasingly through consumption of services, either through necessity or free choice. In all these areas, divisions of labour between the
private and the public sector and also private households are being redrawn and renegotiated, and the service sector in its various dimensions is the arena of these changes and their intended and unintended consequences.

1.2. The UNI Europa services policy project

For all these reasons, trade unions have large and increasing stakes in the social shaping of the European service sector. Quality employment in the service sector is an interest of the majority of the working population and especially the comparative newcomers to the labour market, i.e. women, young people and migrants. It is also one of the key ways of ensuring the competitiveness of good-quality, innovative and productive services that enable the competitiveness and sustainability of the wider economy. However, directing Europe on the “high road” of quality services is not automatic as the European experience since 2000 with its uneven, frequently polarised and not necessarily favourable developments of job quality has shown. It requires problem-oriented policies that are informed by the evidence of current service research in order to identify drivers and preconditions of change, areas of problems and opportunities, risky and favourable configurations of actors, institutions and markets.

In order to structure this research, this report takes a systematic approach following the process of services provision. This means to investigate

- The functioning of labour markets and employment relations in service occupations in Europe;
- Work organisation in services;
- Service provision on the company level, i.e. company strategies, structures and ownership/subcontracting relationships;
- Service markets in Europe, including emerging needs and demands, service innovation, product market regulation.

All of these aspects are analysed with a view to developing EU services policies under the aspects of competitiveness, social dialogue, regulation, labour market policy and innovation, contributing to the development of an EU services policy report outlining policies that enable sustainable growth and inclusive quality employment in the services.

1.3. The present study

The proposed study aims to provide UNI Europa with an overview of European service research that follows the systematic outlined above. This body of work feeds into the development of a European Services Research Agenda that is capable of bridging the existing disciplinary and national research traditions. Service research can contribute to policy in several ways, addressing the influences that shape service work and service provision in both favourable and unfavourable directions. For the purpose of this report, we distinguish two genres of research: (1) research that directly addresses the domains of regulation, policy and interest representation, here called policy-oriented research, and (2) research that investigates
what is more generally going on in the sectors and how market developments and company strategies interact to shape service work and service provision, here called sector-oriented research. Type 1 investigates, for example,

- the implementation and impact of certain regulations and policies on the service sectors concerned – for example, of liberalisation of services in the public interest
- labour market policies and regimes and their impact on flexibilisation and precarious employment with particular emphasis on labour market segmentation and vulnerable groups of workers;
- the development and possibilities of social dialogue and new forms of interest representation;
- examples of good practices on the levels of regulation, of social dialogue in particular sectors or countries, or on the level of company practices that contribute to a virtuous circle of good quality jobs and services – or more actively facilitates the development of such practices in collaboration with stakeholders and social partners.

This type of research is often conducted in a European institutional context of either Framework Programmes or commissioned by the Commission, Eurofound or other European bodies, or provided by think tanks and consultancies. It promises direct answers to questions posed by policymakers and stakeholders about the impact and efficacies of their actions and initiatives. However, it concentrates on those areas where policies and institutional provisions and regulations already exist and can be addressed: regulated sectors, organised sectors or segments, or co-ordinated economies. With the uneven institutional “density” across European countries and the service sector, this leaves little space for investigation and transfer of knowledge and practices to the less regulated segments and regions about which we know less from the start. It may also overlook trends and developments “beside” or “below” the established areas of policies and regulation that have a potential of undermining or eroding them.

Type 2 investigates, for example,

- new forms of work and employment, for example flexible, mobile, or freelance work (ICT, media, financial services, but also personal services and households);
- shifts between sectors through outsourcing and restructuring – which may comprehensively disrupt or transform existing sectors and markets (for example, online platforms and hotels);
- the impacts of wider societal changes and challenges on service work, service provision and service markets, such as
  - new technologies (on ICT specifically, but nearly all sectors, also the less knowledge-intensive ones – cf. for example the impact of mobile communications on distributed services);
  - global restructuring of divisions of labour and value chains

1 www.walqing.eu/webresource
the “greening” of the economy which may contribute to new configurations of products and services
societal changes in demographics, migration patterns, gender relations (social and health sector; private households) that both shape and are shaped by the profile of the service sector.

This is the domain of research on the levels of companies or sectors in particular countries or in the large European and comparative studies. This type of research may appear overly descriptive to policy-oriented actors, but has the advantage of being sensitive to developments outside the regulated domains, to emergent actors, strategies and processes, and in particular to actor strategies that actively aim to “escape” the areas of regulation. It thus can provide insight into possible unintended or unfavourable consequences of both policy strategies and “policy gaps” and oversights.

A rough typology of areas and types of research can look like this:

**Table 1.1: Typology of areas and types of research**

<table>
<thead>
<tr>
<th>UNI Europa service process</th>
<th>Policy-oriented research</th>
<th>Sector-oriented research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service markets in Europe</td>
<td>Service innovation</td>
<td>“service science” technology impact</td>
</tr>
<tr>
<td></td>
<td>Product market regulation</td>
<td>Emerging business models</td>
</tr>
<tr>
<td>Labour markets and employment relations</td>
<td>Labour market policies</td>
<td>skill development and needs</td>
</tr>
<tr>
<td></td>
<td>Social dialogue</td>
<td>wages and inequalities</td>
</tr>
<tr>
<td></td>
<td>New forms of employment</td>
<td>polarisation</td>
</tr>
<tr>
<td>Work organisation</td>
<td>“good practices”</td>
<td>Labour process research</td>
</tr>
<tr>
<td></td>
<td>(participatory) workplace design</td>
<td>Patterns of flexibilisation</td>
</tr>
<tr>
<td></td>
<td>Workplace innovation</td>
<td>Customer interaction</td>
</tr>
<tr>
<td>Service provision on the company level</td>
<td>Cf. service markets</td>
<td>Company strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outsourcing and restructuring</td>
</tr>
</tbody>
</table>

Source: author

Thinking these dimensions through, clearly boundaries between cells are permeable as employment regimes, policies and social partnership influence company strategies and business models and vice versa. Hence, findings from both types of research will be systematically related in the study, and their mutual impacts delineated. There is one gap in the matrix that addresses policy-oriented research on service provision. One reason for this gap is that this is the domain of business strategy and practice and generally is considered to be the domain of companies themselves, and also that of consultancies and market research – bodies of knowledge that are often not in the public domain. Arguably, the public and societal interest in the provision of quality services through high-quality work needs to be articulated politically beyond specialist debates on consumer interest or the public sector.
1.4. **Basic considerations: The “nature” and specificities of services**

This chapter compiles some basic concepts and arguments that are important in social science research on services and aim to address their specifics or “nature”. These concepts address:

- the involvement of clients or **customers** in the **“service triangle”** (Leidner, 1996; Korczynski, 2002; Berker et al., 2006; Dunkel and Kleemann, 2013; Holtgrewe and Kerst, 2002a);
- the question of service **productivity** (Scharpf, 1986; Baumol, 1967; van Ark et al., 2008);

We shall see that services consist of both economic and social relations that are interrelated and offer not just mutual constraints (for example, of societies needing to contain and embed markets or of social resistance to innovation) but also offer possibilities for societal problem-solving, inclusion and innovation.

1.4.1. **The service triangle**

The most well-established common feature of services is the involvement of the customer, or “internalisation of the external factor” and the well-known **“service triangle”** (Leidner, 1996; Korczynski, 2002; Berker et al., 2006; Dunkel and Kleemann, 2013; Holtgrewe and Kerst, 2002a; Havard et al., 2009) of a service organisation or service provider that has a labour contract with its employees and enters into service contracts with its customers. Thus, service workers typically have two masters: They work for a company (or a public or non-profit body) and for that organisation’s customers – or with that organisation’s customers. This means, payments, interactions, relations of control, exchanges of information and pursuits of individual and collective interest are negotiated in that triangle.

**Figure 1.1:** The triangle of relations in services

![Figure 1.1: The triangle of relations in services](source: Havard et al., 2009, p. 259)
Havard et al. (2009) explore the “service triangle” in an institutional context and discuss the various configurations of power and control, in which the employer may retain control over the employment relationship or control may shift to the client. They discuss to what extent labour law could be extended beyond a formal employment relationship to relationships of subordination of employees/subcontractors.

To further complicate matters, with service outsourcing and lengthened value chains, that triangle becomes a **quadrangle** in many areas, when services are provided for other organisations or businesses (Martinez, 2011; Kirov, 2015). Then, another company (or a public or non-profit body) with its strategies, policies and routines enters the picture as a customer or client, and the actual service provider becomes a contractor. Service employees thus work for their company, for the client organisation, and for and with that client organisation’s employees or customers. Examples of service quadrangles are:

- a subcontractor call centre whose agents handle calls and take some direction, scripts and monitoring from that call centre’s client organisation (or from their own management that has to implement service level agreements with the client) while interacting with that client’s customers (Schönauer and Huws, 2008).
- Or, a catering company providing meals for school canteens through a contract with a municipality which sets standards and prices through public procurement, but still leaves some choices to students and their parents (Holtgrewe and Sardadvar, 2012).

This multiplication of relationships and also divisions of labour and power asymmetries has varied implications for both work organisation and interest representation in services that have first been explored in instances of liberalisation of services in the public interest and outsourcing from the public sector.

**1.4.2. Productivity in services: is inequality inevitable?**

For services, **productivity** is regarded as a critical issue. Baumol (1967) and then Scharpf (1986) famously argued that in labour-intensive and interactive services, labour productivity cannot be easily increased – a service, which is consumed as it is being produced, takes as long as it takes and involves both the customer’s and the worker’s time. The industrial mechanism of productivity increases then does not apply in the service sector. In manufacturing, productivity increases can be shared between capital and labour so that a part increases workers’ wages, and hence, demand and the standard of living in industrial societies. As incomes rise, modern societies will spend increasing parts of this income on services (Fourastié, 1969), and thus increase employment in the service sector. However, if services lag behind in productivity and remain labour-intensive, this generates the “cost disease” (Baumol, 1967). If wages in services increase in line with those in manufacturing, labour-intensive services will become prohibitively expensive for consumers or the public sector. Alternatively, the productivity difference will lead to increasing wage inequality that mirrors productivity differences. If wage inequality is mitigated, employment contracts or labour markets may become differentiated and segmented (Eichhorst and Marx, 2015b).
A comparative version of the “cost disease” has been observed by Wren and Iversen (1998) and named the “service trilemma”. It means that advanced or early-industrialised service economies cannot simultaneously have high employment, low taxation and social equality as the demand for (consumer) services is more price- and income elastic than that for manufactured goods and the scope for productivity gains in (consumer and personal) services is low. For these reasons, increases in service employment are contingent upon low wages in the service sector (also, for higher-earning consumers to afford these low-productivity services) – unless the state supports or subsidises service sector incomes through high taxation, or unless wage bargaining is coordinated in a solidaristic way, which would result in lower employment in the service sector.

However, in the 20th and 21st century we have certainly seen a differentiation of the picture. Services have invented several ways of increasing productivity: Involving and intensifying customer involvement up to the deployment of customers’ “free” labour (Voß and Rieder, 2005), standardising services and delivering them remotely (increasing scalability), dividing labour between frontline and back-office functions (Frenkel et al., 1999), skill upgrading, or, not least segmenting clients and service product markets, for example generating higher revenues from “luxury” or “high end” segments of the market. Indeed, both standardisation and differentiation of services can be regarded as responses to versions of the “cost disease”, and the investigation of service markets and business models is increasingly concerned with increasing service productivity (van Ark et al., 2008).

### 1.4.3. Uncertainty in services

The concept of **uncertainty** is closely related to the central role of the customer in services, and has been developed by German sociologists in particular (Berger and Offe, 1984; Holtgrewe and Kerst, 2002b; Jacobsen, 2013b, 2010): Companies cannot control their customers to the same extent as their employees, and customers bring elements of context openness and uncertainty into services on multiple levels: in interactions that cannot be comprehensively standardised, in organisations that need to manage that uncertainty, or in value chains in which powerful players shift the needs for flexibility or adaptation up or down the chain, or volatile markets that may have a tendency towards monopolisation, disruption or failure. Indeed, services can be said to absorb the general uncertainties of life in complex, modern societies in such a way that production processes can be rendered predictable and ever more efficient and productive in a conventional sense (Berger and Offe, 1984). This argument has been made for social and personal services as well, in particular by feminists: like care work done in the household, personal and social services only render people fit for work, providing education, care, clean clothes, food, health, recreation and so on.

However, this uncertainty that is constitutive of services is not simply bad news but the very fabric of new opportunities: Handling uncertainties, reducing complexity, offering extra resources or flexibility are genuine services that can be piled upon one another. For example, consultancies are well capable of advising clients on “making or buying” or innovating their own services; travel agencies increasingly specialise in creating customer-specific bundles of
others’ hospitality services; public and private-sector information centres and intermediaries may advise individuals on further education and training possibilities. Services thus have the capacity of turning complexity and uncertainty challenges into business opportunities and innovations, turning “bugs” into “features”, and they do this more smoothly than product innovations that need to separate the “technical” and the “social” aspect of the problem first. This is one of the reasons for “servitisation”, the process in which manufacturers increasingly move into service provision, offering “solutions” rather than “things” that are more marketable and promise extra gains in volatile environments.

1.4.4. Conclusions: understanding and shaping services

These concepts address the “nature” of services but find that this “nature” is essentially social: it is shaped by society and social relations as well as economic ones, and it shapes them in turn. Concepts that address these relations have different backgrounds and also different implications for service policies. The involvement of customers is evident and undisputed although it makes a difference whether customers are regarded as sources of value in an economics or business sense, as sources of power, control and possible allegiance in a “political” or strategic sense for management or workers, or as carriers of societal norms and expectations in a sociological sense that embed a business organisation into their social environment through service interactions. Indeed, customers and their interests in high-quality services may be addressed and possibly involved as potential allies in union strategies.

The question of service productivity can be read as a structural constraint on the quality of wages and working conditions in the services. If services, especially the interactive and less knowledge-intensive personal services are regarded as less productive than other types of work, they require decided political and redistributive intervention and centralised, solidaristic collective bargaining to overcome low wages and poor working conditions. Alternatively or complementarily, they require investment into automation and quasi-industrialised modes of service delivery. However, the current political focus on those services that promise direct productivity increases and economics of scale (see chapter 2) may exacerbate social inequality, and create job losses (see chapter 3). It may also put the quality of services and service employment in those sectors of social, personal and cultural services at risk that are central to societal and human wellbeing, are likely to create employment if they receive investment, and also indirectly enable sustainable and longer-term productivity within and beyond their own sectors.

This is where the concept of services as absorbers of uncertainty points out possible solutions. It questions a narrow notion of productivity that is modelled on clear inputs and outputs as in traditional manufacturing, and shows how, if uncertainties are unavoidable, they can be turned into opportunities for business, work and public engagement. In this view, uncertainty and heterogeneity are service-specific resources that can be cultivated as sources of both business and social innovation. Vice versa, they may be put at risk if companies and policies favour productivity increases through standardisation, homogenisation and cost-saving. Hence, it is a genuinely political question how costs and investments, jobs, functions, resources
and risks are distributed between markets, the public sector and the social economy (Wright, 2008). In the following chapter 1.5 we shall see how services are entangled with social structures and indeed, societies.

1.5. **Services and their societies**

European societies are **service societies** with shares of services in the overall economy and in employment of well above 70%. Yet, even service researchers and service stakeholders continue to treat services as a special interest subject. It seems to take an extra cognitive effort even for service experts to imagine issues such as work, employment or productivity as thoroughly provided through services. For this reason, considerable effort is spent on defining and delineating the “service sector” and in this process discovering its heterogeneity. As we know, the service sector started its statistical life as a residual category of sectors and occupations that were neither agricultural nor mining nor industry. Hence, it carries a burden of needing to adopt “industrial” concepts and mindsets to the specifics of a somewhat vague but generally “different” sphere of the economy. The following two approaches shift this logic around and put services into the conceptual centre.

- The “service-dominant logic” (Vargo and Lusch, 2008, 2004; Gummesson et al., 2010; Birken and Dunkel, 2013) conceives of business, economic and also social activities as actual or potential services.
- The notion of “service societies” considers societies as shaped by the structure and development of services (Bell, 1973; Häußermann and Siebel, 1995; Bosch and Lehndorff, 2005b; Wren, 2013b; Gershuny, 1981; Baethge and Wilkens, 2001).

The service-dominant logic thus implements the arguments developed in chapter 1.4 into a marketing and management perspective that is opened up to society at large, and to insights from social science. The perspective on service societies describes tertiarisation, the expansion of the service (or tertiary\(^2\)) sector, as a process that shapes and modernises entire societies. The uncertainties, inequalities and productivity problems of the service sector thus translate into societal and institutional challenges, and such challenges can be addressed through services. Service societies have developed a range of institutional responses to these challenges with different implications for equality, labour markets and the power relations of collective actors.

1.5.1. **The service-dominant logic**

With increasing complexity of products, markets and divisions of labour overall, service researchers both from a sociological and a marketing and management angle are redefining service as the fundamental operation of economic processes. As we have seen, German sociologist Heike Jacobsen understands service as mediation between contexts of production

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\(^2\) In this division that is mirrored in the NACE classification of industry sectors, the primary sector traditionally consists of mining and agriculture, the secondary sector means manufacturing.
and contexts of utilisation under conditions of uncertainty (Jacobsen, 2013a). In marketing and service management, famously US-based management researchers Vargo and Lusch suggested viewing management and indeed, the economy through the lens of a “service-dominant logic”, defining service as “the application of competences for the benefit of another party” (Gummesson et al., 2010). This approach integrates the tradition of the so-called Nordic School of service research (Gummesson and Grönroos, 2012) and the more US-based “Service Science” that has centrally been sponsored and influenced conceptually by IBM, a multinational that has pioneered the restructuring from a manufacturer of technology to a provider of services, solutions and more recently, organisational and global concepts. The Nordic School in particular has developed the notion of service as a co-creation involving the customer and the service provider, drawing on various relational approaches to marketing that emphasise and investigate customer interaction and service quality (Birken and Dunkel, 2013).

The approaches of the “service-dominant logic” and of Service Science explicitly aim to revise the understanding of the economy at large. Service Scientists – in the sense of the US-dominated, managerial and technological school of thought – pursue a systemic approach in which “service system entities are dynamic configurations of resources … In fact, the four primary types of resources are people, organizations, shared information, and technology” (Spohrer and Maglio, 2010, p.6). This applies to a wide range of social activities, but the specific focus of Service Science is on management, technology and efficiency. The “service-dominant logic” has also been taken on board by industry and innovation policy initiatives that support both manufacturers and service companies in expanding the service aspect of their activities, hoping to improve their revenue base (Ministry of Employment and the Economy, 2015).

The “service-dominant logic” is also well capable of connecting with theoretical developments in economic sociology, organisation and technology studies, or with the resource-based view of the firm in business studies. These disciplines share a relational and constructivist perspective on agency, collaboration and networks. Like them, the “service-dominant logic” includes “intangible, dynamic resources, inputs for co-created value, and relational, economic and social processes” (Gummesson et al., 2010, p. 10) and emphasises customers’ and citizens’ agency. It also crosses the boundaries of paid and unpaid work, and may include care, culture, informal sectors and the spheres of interaction, conversation and play that may be fully or partly commodified, professionalised or not. Hybridity of products and services, inclusion in or exclusion from the formal economy thus are no conceptual problems at all within a “service-dominant logic”. Indeed, “products are tangible services, not services intangible goods”, as Birken and Dunkel (2013, p. 15) put it, and both services and goods are embedded in webs of economic and social activities and actors.

Such an all-inclusive approach is refreshing theoretically as it puts services into the centre of economic activity. However, the concept runs the risk of over-generalisation and non-specificity. It blurs important distinctions and asks no questions of power and interest. There is little reflection of the powers of definition over what a service is, how the value that is “co-created” by economic actors is then distributed, who pays and who decides. These questions
are important both with regard to “traditional” services and especially to those new(ish) business models that involve “working for free”. Here, the service-dominant logic hovers somewhat ambiguously between a potential for generating interesting and critical questions and sensitising actors to the industrialist presuppositions in service analysis and policy, and a managerialist and market-radical programmatic that could promote limitless commodification and exploitation of lifeworlds and social relations under the heading of “service” (see chapters 2.4, 3.3.3 and 5.4).

1.5.2. Service societies

Originally, the notion of the “service society” was associated with modernisation and progress in both an economic and social sense. US-American sociologist Daniel Bell expected work in the “post-industrial society” to be transformed increasingly into a “game between persons” that would more complex, interactive and communicative and thus could be expected to be upgraded and professionalised (Bell, 1973). It was picked up by Jonathan Gershuny who argued that for productivity reasons (see chapter 1.4.2) it was more likely that services would be shifted back into ensembles of household machinery and technology-supported self-service activities (Gershuny, 1981) — washing machines substituting laundry services or frozen food substituting take-away or restaurant meals. At the same time, futurist Alvin Toffler (1980), inspired by both technological modernisation and “alternative” movements and practices of production and consumption, developed the notion of the “prosumer” and thus laid the grounds for the programmatic of consumer co-production that we find in the “service-dominant logic” (see above) and also in contemporary programmes and strategies of “open innovation” (Hippel, 2005). Under an innovation perspective this carries connotations of democratization, participation and empowerment. German sociologist Günter Voss and psychologist Kerstin Rieder (2005; 2009) developed a more critical stance with the notion of the “working customer”, arguing in a self-service vein that companies increasingly are converting paid work into unpaid customer activities, in effect accessing a cheaper source of profit (or rent) than work. Weberian sociologist George Ritzer (1993; 2005) emphasised the far-reaching standardisation of globalised services under the heading of the “McDonaldization” of society. Current discussions on “share economies” on the one hand, platform capitalism on the other retain that ambiguity of empowerment and exploitation: Business models and social innovations that create networks and focus on enabling and leveraging services by others can render resource utilisation more efficient and increase people’s opportunities for interaction, sociality and participation, but can also undermine or disrupt existing jobs and social relations and pressure impoverished groups of people into precarious “pin money” activities for lack of more viable employment.

However, service societies come in various shapes. In 1995 already, well before comparative analyses had gained ground in political economy, German sociologists Häußermann and Siebel mapped Esping-Andersens typology of welfare states (Esping-Andersen, 1990) on the respective service sectors of various countries according to their share of public, private and household-based services – emphasising personal and social services and giving less attention
to business-to-business services. They distinguished the Nordic “public service societies”, the English-speaking “servant societies” in which social and personal services were chiefly provided through the market, and the “underdeveloped” service societies of Continental Europe, in particular Germany and Austria, where the formal sectors of social and personal services were smaller than elsewhere as services were provided domestically, chiefly by women who were not or only marginally active in the labour market (Häußermann and Siebel, 1995).

For research into labour markets, atypical employment and industrial relations, researchers use typologies of countries or “regimes” that vary in labels, some details and theoretical emphases, but generally distinguish between

- “Western Isles” or Liberal regimes (UK, IE, also US, AU, NZ)
- “Nordic” or Social-Democratic regimes (DK, SE NO, FI)
- “Continental” or Conservative regimes (AT, BE, F, DE, NL, with some variation)
- and “Southern” or Mediterranean regimes (ES, PT, IT, GR).
- Eastern and South-Eastern European societies are not well represented in these typologies with either their shared socialist histories or their wide historical, cultural and economic variation (Bohle and Greskovits, 2012).

Whereas some countries appear consistently as “typical” representatives of a regime, depending on the research question, others appear as boundary cases. For example, Belgium and the Netherlands with their high union density and work design tradition in some analyses appear closer to the Nordic than the Continental countries. Vice versa, it has been argued that Denmark in some respects comes closer to a Liberal economy than a Nordic one. France with its strong state involvement in collective bargaining and its comparatively high full-time employment of women does not fit into the Continental/Conservative mould very easily.

Comparative research shows how indeed, the development of service societies is related to gender inequalities and gendered divisions of labour in particular ways. A lot of work in personal and social services can be described as formalisation, professionalisation or commodification of work that used to be performed as unpaid housework. However, the increases in women’s paid employment are obviously not just due to a shift of work from the domestic into the public sphere. Since the end of the 19th century, women also entered the emerging and expanding new occupations in clerical work, business services and commerce, or health, and even computing in the beginning was treated as a women’s occupation. The state also took over and professionalised welfare functions, and bureaucracies managing these functions emerged. Hence, the service society and the feminisation of paid employment have

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3 Some authors, in the tradition of Esping-Andersen (1990), use political-party labels (Social-Democratic, Liberal, or Christian-Democratic) to mark the political coalitions and traditions shaping the respective regime. Others favour more geographical labels (Nordic, Western Isles, Continental). The latter has the advantage of being more adaptable to finer-grained distinctions (as long as these are regionally distributed in consistent ways) and of allowing for the inclusion of countries with different party-political configurations, for example distinguishing the Southern/Mediterranean regimes from the Continental ones.
become somewhat indistinguishable, in particular as in the second half of the 20th century, mothers joined the labour market. To a certain extent, this development further increased the demand for services: not just companies and the public sector, but also private households “outsource” activities that used to be provided through unpaid housework: care for children and the elderly, hospitality and tourism, cleaning, entertainment and so on.

Obviously, this development intertwines the social and the economic: the expanding need to work for a living, women’s emancipation and the expanding demand of both companies and consumers for services mutually reinforce one another. However, as service societies are continuously redrawing gendered divisions of labour, they continue to do so on unequal terms (Wagner, 2005; Walby et al., 2006; Karamessini and Rubery, 2013): Women receive lower pay both within and across service sectors, poorer career prospects, and even in the more equitable Nordic countries, concentrate in the public sector, resulting in ongoing sex segregation in the labour market:

“the integration of women into the labour market and the transformation of informal household tasks into professional services appears to reproduce, in new forms, the hierarchical, gendered division of labour” (Wagner, 2005, p. 124).

Wagner’s conclusion remains topical: Developing real gender equality and opportunities for both women and men to reconcile paid work and family responsibilities requires service societies to “refashion the social regulation of employment in order to accommodate the expansion in women’s employment and work in services” (p. 127).

However, other activities get shifted back to private households’ activities: “Big box” retailing relies on customer self-service and on customers driving long distances to shop in large outlets and malls. In varied business-to-consumer services such as financial services, travel, online retailing, telecommunications or software distribution, self-service websites and apps have customers enter long chains of numbers, find information and make sense of companies’ offerings, and conduct the transaction – occasionally with very limited real-time support. Liberalisation of services in the general interest also shifts the effort or transaction cost of finding the best offer to the consumer – in a context in which service providers often have little interest in transparency.

1.5.3. Conclusions

In sum, visions and programmes around services and their societal implications at large are manifold but on their own do not answer the questions of “which services for whom”, of equality, fairness and decency in the quality of work and life. Moving through the subjects of modernity, encountering ever-new social movements, cultural avant-gardes, technological innovations and businesses, unions representing service workers are in a key position to insist on sustainable answers to these questions.

Service societies have developed in different “varieties” that mirror different types of welfare states and industrial relations (see chapter 1.6 and 3.2.1). They differ in the functions taken
over by the state or the public sector (Nordic societies), private households and families (Continental and Southern societies), or the market (Western Isles or Liberal societies). The respective institutional configurations are further explored in chapter 3.2.

This notion of institutional variation is going to reappear throughout the report as indeed, service markets, labour markets, work organisation and business models are shaped by the societies in which they are embedded – adding weight to the core idea of this report that services are social and can and need to be shaped by democratic societies. However, institutional variation can be read in a more ambiguous way: if institutions are shaped in the long duration of historical developments, reflecting the outcomes of power struggles between societal actors in a long-term perspective, then how do we tease apart these path-dependencies of national configurations on the one hand and those convergent developments that are shaped by globalised market or social forces, European policy, technological change, or the power of key multinationals? How can unions turn their varied experience in different national (and also regional) context into resources of mutual learning and aggregation of interest? In this chapter, we can just raise these questions, and the following chapter 1.6 offers some insight into union strategies and practices in the services. Beyond this, answers and empirical evidence on the various levels of analysis are distributed throughout the report and will be gathered in chapter 6.

1.6. Industrial relations in the services

1.6.1. Types of research: sector- and policy-oriented research

There is a body of research into industrial relations in the service sector in Europe: (Sturdy and Korczynski, 2005; Pernicka, 2005; Kirov, 2015, 2013a; Holst, 2011b; Helfen and Nicklich, 2013; Goes, 2014; Dolvik and Waddington, 2005; Doellgast, 2012b; Adler et al., 2014; Waddington et al., 2005; Geppert et al., 2015; Geppert et al., 2014), but the picture is both uneven and unevenly researched. As Rüb and Platzer (2015a) put it,

"the economic, social and political significance of the service sector is inversely related to its investigation by industrial relations research” (p. 12, translation UH).4

Industrial relations regimes are varied and industrial relations studies are embedded in their respective national research traditions. Collective actors in Europe also differ in their power, mindsets and capabilities, and multi-level social dialogues have their own complexities on top of the heterogeneity of the service sector. Most studies address specific industries or companies and their social dialogues in specific countries or, increasingly, on the European level. The most common research design is: retracing the histories of cases through document analysis, interviews with actors and participants, and sometimes participant observation in social dialogue, and then drawing comparative conclusions, identifying common and diverging

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4 The book has been published in both German and English, this report uses the German edition. Hence, some terminology may differ from the English version.
patterns and their prerequisites and outcomes. Research into industrial relations thus often benefits from researchers’ ongoing conversations and involvement in the field, both through a build-up of knowledge and research contacts and through dedicated interventions and involvement in social partners’ and stakeholders’ discussions, identification of challenges and areas of consensus and negotiation.

1.6.2. Industrial relations in the services: from comparative to European research

The banking sector (Regini, 1999) and telecommunications (Katz, 1997; Katz and Darbishire, 2000), with their sector-specific patterns and histories of regulation first invited comparative investigation of patterns of convergence, divergence or “converging divergences” (Katz and Darbishire, 2000) of industrial relations and employment systems. Convergence in this context means a convergence of firms’, national sectors’ or collective actors’ strategies, policies, practices or modes of organisation in response to common challenges, as “best practices” emerge and less effective ones are weeded out. This is a somewhat functionalist concept that assumes that actors mostly adapt to environmental pressures. Convergence can be discussed in two ways: either as a convergence upwards of “best practices”, improving political capability and coordination, or of a convergence downwards, such as “races to the bottom” in response to competitive pressures of globalised capitalism. Concepts of divergence generally emphasise the path-dependency and the deep historical roots of institutions, logics of economic and political action and may assume institutional complementarities that reinforce these path-dependencies (Hall and Soskice, 2001). Generally, there appears to be agreement that patterns of convergence and divergence overlap. Liberalisation and decentralisation of collective bargaining systems are observed across the early-industrialised countries, but

“the ways employers and unions have restructured national systems vary markedly among coordinated economies in the EU. These systems vary in union density, the relative importance of industry- and firm-level bargaining, the role of works councils at the firm and establishment levels, and the extent of reliance on mandatory or voluntary compliance mechanisms to extend bargaining coverage to employers who are not members of employers’ associations” (Batt et al., 2009b, p. 457).

Yet, deregulation of both product and labour markets, de-unionisation and decentralisation of collective bargaining have shifted bargaining power to the employer side and thus have also created more space for variation in company strategies. For the service sector, the diagnosis of Dolvik and Waddington (2005) remains valid:

“private-sector services are marked by a variety of industries with a growing share of small and recently-formed firms; new patterns of labour-management relations and work organisation; a diverse workforce with relatively high rates of labour turnover and participation by women; and difficult structural conditions for collective organisation. In consequence, unionisation rates are often markedly lower than in manufacturing and traditional services. Struggling with rising work flexibility, erosion of the standard employment relationship, individualisation and social polarisation, traditional trade union
movements are thus at their weakest in those parts of the labour market where growth is strongest and many of the most vulnerable groups of workers are found” (p. 316).

Nevertheless, there is considerable variation between sectors and countries. Transport and banking are more unionised than other services in many countries, there is large variation in retail and hospitality and also in ICT, with traditional strongholds and large gaps (ibid.). The decline of union density has varied considerably among countries, but appears to be associated with the declining average firm size rather than with service sector employment or women’s increased employment participation. However, atypical employment appears to lower the likelihood of unionisation (Schnabel, 2013). With the mergers of service sector unions, their constituencies have become more heterogeneous, and with limited resources, their aims may conflict to represent and organise actual and potential constituencies, pursue “old” and “new” agendas (Holtgrewe and Doellgast, 2012).

Only recently does the European level of interest representation in services attract more research interest. Research from the walking project has investigated both national industrial relations and European sectoral social dialogues in low-wage sectors such as commercial cleaning, catering, elderly care and waste management and confirms the heterogeneity of European sectors (Kirov, 2011). Cleaning in particular was found to have a well-functioning social partnership on the European and many national levels level in spite of low union density and the difficulties of organising locally dispersed and fragmented, vulnerable workforces. However, social partners in the sector have common interests in combating irregular competition and negotiating more favourable contracts with clients who exert considerable pressure on working conditions. They thus join forces in lobbying for more favourable regulations of public procurement (similar to catering) and for quality standards and working times (Kirov and Ramioul, 2014). Extension of collective agreements, health and safety initiatives and the promotion of daytime cleaning (to achieve longer working times for cleaners) are other issues of social partnership on the European and national levels. Jaehrling and Lehndorff (2012; Lehndorff, 2015) discuss the possibilities and interrelationships of minimum wages and statutory extension of collective agreements, concluding that in low-wage services “Collective bargaining is crucial, but it needs backing by public policy” (Lehndorff, 2015, p. 111), since in these sectors not all the prerequisites of effective collective bargaining are found, such as the existence of flagship companies and employer associations interested in social partnership and a propensity of workers to unionise. Kirov (2015) discusses the issues in which social partners can improve the quality of work in low-wage services: Stabilising employment, influencing clients’ preferences and (partly) upgrading skills and improving health and safety are the key points of negotiations.

In the higher-skilled segments, unions are challenged by outsourcing and cost-cutting strategies. Developments in the incumbent telecommunications companies remain an area of (somewhat specialist) interest as these were traditional union strongholds in a high-tech sector. After conducting an in-depth study comparing work organisation, HR and industrial relations in Germany and the US (Doellgast, 2012a), Virginia Doellgast and colleagues investigated European telcos (Doellgast et al., 2013), finding, again, “converging divergences”.
Here, dualisation of internal labour markets and outsourcing have been the key subjects of negotiation. Companies restructured in close cooperation with worker representatives and unions over downsizing, redeployment and reskilling of workers, diversification of contracts and “high involvement” management practices – but in some areas labour conflict increased. In particular, the diversification of contracts increased inequality and dualisation (cf. chapter 3.2.2). Successes for unions consisted in the avoidance of larger reductions for existing employees and in reducing inequalities over time. More encompassing collective agreements created the least disruptions. Two other studies provide evidence of telecommunications unions in Ireland (MacKenzie, 2000, 2010) and Italy (Kornelakis, 2015) that succeeded in organising contingent workers and achieving new sectoral bargaining structures that included atypical workers. Unions’ abilities to overcome historical and “ideological” boundaries and also “associability” of the employer side apparently play a central part in these cases, but notably, favourable policies in these cases are not restricted to the Nordic countries.

A recent study (Kirov and Thill, 2015) investigates restructuring and social dialogue in banking in several European countries (AT, FR, LU, RO, UK) throughout the financial crises of recent years. This sector still has considerable variation by country but faces common challenges of downsizing and restructuring in an environment of increased re-regulation and low interest rates. Employment has changed considerably over decades (Regini et al., 1999), and jobs are no longer “stable and for life” (Kirov and Thill, 2015, p. 14), with losses of some 250,000 jobs in the EU-27 between 2008 and 2010 alone. In some countries, sectoral social dialogue is making inroads into the anticipation of restructuring and skill change. France, with its bipartite observatory of professions, qualifications and gender equality is a key example. Still, banks appear mostly to downsize in a consensus-oriented manner, avoiding mass layoffs and negative publicity. They are looking for early retirement, flexible working time arrangements, or internal mobility and training, or the support of outplacement or retraining services.

A research team around Mike Geppert (Geppert et al., 2015; Geppert et al., 2014) has investigated industrial relations in multinational hypermarket and hard discount retailers and find that in these European-based multinationals there is less of a homogeneous “WalMart effect” of union avoidance or anti-union policies than might be expected, but that the hypermarkets selectively accept and utilise union representation while still overall favouring more “liberal” arrangements than in their “coordinated” home countries.

Rüb and Platzer (2015b) have conducted a study of European interest representation by UNI Europa in multinationals from the service sector (and the graphics industry), that is, in insurance, retail and packaging. This analysis makes progress in various dimensions. It addresses multinationals in services, representation on the European level, and investigates the respective roles of rights, company contexts, national and sectoral influences. Challenges consist in the acceptance of trade union presence on the European company level and not least in the capacities of both UNI Europa and national unions’ secretaries to support the European level. For unions, European interest representation notoriously competes with other, national and local membership and organising agendas.
Together, these studies do not cover the entire service sector but provide some coherent insight: Transnationalisation and relocation of work has emerged as a central area for European negotiation. Patterns of relocation, outsourcing and offshoring in many service sectors and functions are different from those in manufacturing as even in those service sectors that are tradable or immaterial (such as business services), services still need to be delivered locally. Relocation then affects back-office functions rather than core competencies that are locally distributed. Transnational companies operate nevertheless and partly standardise work organisation to a large extent, but with some chances at professionalization and quality-oriented strategies (see chapter 5.3). Those companies that expand transnationally through mergers and acquisitions may develop an interest in integrating subsidiaries and their staff by establishing a European culture of labour relations (Rüb and Platzer, 2015b). Large service companies and multinationals also struggle with social dumping by small or micro enterprises (Kirov and Ramioul, 2014), and thus may favour a “level playing field” with better labour standards and the effect of squeezing out the economically weaker and lower-quality competition. In other cases, for example in retail or mobile telecommunications, “Home country effects” of sustained social partnership do not always translate to other countries. Multinational service companies thus play various parts as promoters or obstructors of European social partnership, and on the European versus the different national levels.

Banks (Kirov and Thill, 2015), insurances and some retailers (Rüb and Platzer, 2015b) and possibly cleaning or catering multinationals have an interest in their reputation among customers and also in the retention of employees, although high labour turnover may on the other hand hinder interest representation on the labour side. Influence on clients is exerted particularly with regard to the public sector, with social partners aiming to impact public procurement (Kirov, 2015; Jaehrling, 2014; Jaehrling et al., 2015; Schulten et al., 2012).

1.6.3. Conclusions

Due to the variety in industrial relations regimes, and also within and between service industries, research into industrial relations needs to spend considerable time and effort describing its respective field. However, some general conclusions are possible:

The key challenges for service sector unionisation are familiar: low or uneven union density, disorganised employers (also on the national level, cf. Kirov 2011) and fragmented, spatially distributed employment in sectors that often have large segments of small and medium-sized enterprises, or (for example in telecommunications) of incumbents and newcomers from different sectors and organising traditions. In service multinationals, the number of non-union members in European (and national) works councils can also be a problem. Nevertheless, even and especially in low-wage and precarious segments of the service sector, union presence in both companies and sectoral collective bargaining is consistently found to make a positive difference for working conditions and wages (Batt et al., 2009a; Kirov, 2011; Holtgrewe et al., 2015a). Multinationals may develop or retain an interest in social partnership for various reasons: social integration of the company, limiting irregular competition, or setting standards to influence clients, especially with regard to public procurement. Apparently, those service
industries for which customer trust and reputations are important, also provide more favourable conditions for successful social partnership.

However, as service companies continue to downsize or outsource jobs, unions also need to keep an eye on the segmentation of the labour market and those segments that are harder to organise: small businesses, subcontractors, fragmented employment contracts, new hires and new workforces. Labour market dualisation (see chapter 3.2.2) no longer protects core workforces from declines in job quality (Arzbächer et al., 2002; Doellgast and Greer, 2007; Holtgrewe and Doellgast, 2012; Meil et al., 2009) but increases the pressure to lower standards. Here, in the disorganised parts of the service sector, unions need particular policy support and possibly, a revision of established divisions of labour between state regulation and social partnership (Jaehrling and Lehndorff, 2012).

1.7. Service typologies

As soon as research addresses concrete service industries and contexts, we are faced with the heterogeneity of the sector. While a general and also comparative “services” perspective certainly is promising, services remain varied, ranging from the knowledge-intensive business services to low-skilled or undervalued operative work – and the expansion of the service sector apparently is associated with some polarisation when mid-level skilled service work is (partly) automated, offshored or deskilled (see chapter 3). Hence, teasing apart the common and sector-specific issues and challenges and their respective driving factors and consequences within the broad “service sector” is a necessary part of the study in order to precisely target service policies.

Figure 1.2: Typology of services

Source: author

A possible typology considers

- Business-to-consumer/personal vs business-to-business services;
• more knowledge-intensive vs lower-skilled services
• immaterial vs location-bound services (such as call centres vs cleaning).

The first distinction is obvious on one level and less so on another. Hairdressing, health, hospitality or tourism are chiefly personal services whereas consulting is clearly business-to-business. In other sectors the distinction stretches through the sector. Both individuals and businesses may use postal or telecommunications, financial or car rental services. Here, either companies specialise or, especially following liberalisation in the 1990s, they are segmenting their customers and company structures along these lines (Blutner et al., 2000; Batt, 2000). In these cases, business-to-business functions frequently have more complex tasks, more skilled work and workers, and more discretion.

Knowledge-intensive versus low-skilled services are somewhat self-explanatory. However, low skills are often enough somewhat blurred, and skill levels of workers may vary between countries with different systems of vocational training. European countries for example offer either apprenticeships or company-specific training for work in retail, administrative functions or even call centres. Indeed, since skill levels are not always clear-cut, we introduce a level of intermediatively knowledge-intensive services.

The final distinction touches on questions of relocation and offshoring of services. Indeed, it is the space-bound (and low-skilled) services that account for a considerable expansion of lower-quality employment in Europe since 2000 (Holtgrewe et al., 2015b). While immaterial services could theoretically be delivered remotely, their location is not purely cost-driven. Language and cultural ties or regional clusters also play a part in the location of offshores services (Holtgrewe et al., 2009b; Howcroft and Richardson, 2012), even in the new crowdsourcing forms of virtual working (Lehdonvirta et al., 2015).

In the literature, we also find other service typologies. In their overview of European service societies, Bosch and Wagner (2005), classify service industries slightly differently, with more of a functional approach but not considering knowledge intensity:

• Distributive services include wholesale, retail, transport, post and telecommunications;
• Public and social services have just that, and also include health and education, non-profit organisations and recreation;
• Business-oriented services include financial, IT, research and development, real estate and “other” business activities;
• consumer services are hospitality, personal and household activities.

A recent collection of comparative studies of the service sector that will be further discussed in chapter 3.2 (Wren, 2013b), draws key distinctions between high- and low-skilled (or more or less knowledge-intensive) services and tradable and non-tradable ones that are exposed to international competition or not. These distinct dimensions are merged into a distinction of
**dynamic** (high-productivity, ICT-and knowledge intensive and not relying on face-to-face interaction) and **non-dynamic services** (low-productivity, low-skilled, space-bound or relying on face-to-face interaction). The tradable and knowledge-intensive services for which the traditional limitations on service productivity do not appear to apply, are regarded as the key growth engines of the wealthier societies, as industry has shifted towards lower-cost regions. However, while expansion of the service sector is a common feature of wealthier societies, Wren and colleagues still observe distinct country-specific service profiles and development paths of the various employment regimes, with differences between market-based and public-sector services.

Directly addressing economic policy, advisors to the Finnish Ministry of Employment (Yrkkö et al., 2015) distinguish the **tradability** and **scalability** of services. They measure tradability by looking for service industries that are unevenly distributed by region, assuming that if services are concentrated and can be traded regionally they could be traded internationally as well (cf. Eliasson et al., 2012) – a concept similar to the notion of location-bound services above. Scalability in the study is measured by comparing the productivity of the largest decile of service companies within a subsector with that of the rest – if large enterprises are significantly more productive, the service is deemed to be scalable. The authors complement this analysis by expert opinions and allow for an intermediate category of tradability “to some extent”. However, it could be argued that these measurements are not applicable to the entire sectors in question. Certain services such as culture, entertainment or hospitality concentrate in cities and may attract international tourists (which would amount to tradability) or customers from the region. The high productivity in a part of a service industry may not extend to the entire industry if large enterprises “cherry-pick” the segment of the business where productivity can be increased. In addition, the contributions of service variety and specialisation to employment, service quality and innovation appear somewhat underrated under this perspective.

In the following chapters, we shall draw on the first typology to sort through research findings where appropriate. Where research applies to particular service industries or segments, these sectors or segments are mentioned explicitly. When studies themselves use other typologies we shall make these explicit. It appears so far that considerable attention of policy and policy-related research is given to the knowledge-intensive and space-independent services to businesses. These services (and especially large and multinational companies in the respective sectors) are generally deemed to benefit from liberalisation and in turn to drive growth and productivity in Europe (see chapter 2). On the other hand, they may contribute less to employment even as skill levels increase in the working population (chapter 3.4).
2. SERVICE MARKETS IN EUROPE

The expansion of service markets is generally regarded as crucial for future growth and value creation in Europe, as manufacturing is increasing its productivity and frequently relocated to lower-income and cost countries. Observers and policy advisors see considerable room for improvement in the competitiveness of European service industries, both with regard to productivity and innovative capabilities. However, they put their emphasis on the tradability and scalability of services as sources of productivity increases and growth, employing a somewhat industrialist perspective. As research is embedded with particular institutional environment, we distinguish the policy-oriented analyses from countries such as Finland or Germany and those that treat liberal market economies as the benchmark or Leitbild. In chapter 2.4 we look into the recent technology-driven visions and prognoses that increasingly inform industrial and service policy debates. However, the dimension of work and employment is largely absent in this body of literature.

2.1. Research genres

2.1.1. Overview: Policy-oriented research

Policy-oriented research into service markets in Europe is generally rooted in economics and, following the Services Directive of 2006 and the debates around it (Bisirske, 2006) gives considerable attention to the development of databases and indicators of the development of service markets. The EU-KLEMS database (www.euklems.net) and two follow-up projects funded by the 7th Framework Programme, SERVICEGAP (www.servicegap.org) and INDICSER (www.indicser.com) in particular have explored the development of service sector innovation, productivity and internationalisation on economic development. To do this, they focus on market and business-to-business services, that is, the ones that are tradable and supposed to be amenable to productivity gains (van Ark et al., 2008; Uppenberg and Strauss, 2010; Mustilli and Pelkmans, 2012; O’Mahony, 2013).

Recent studies by expert advisor groups from service and technology industries, consultancies, and applied research have been conducted for the European Commission (Kuusisto, 2012), in Germany under the heading of “smart services” (acatech, 2015) and in Finland, with an emphasis on digitalisation (Ministry of Employment and the Economy, 2015). The German study aims to link the current technological developments in services and manufacturing (Internet of Things and “Industrie 4.0”) and explores ways in which German and European service and manufacturing companies might insert themselves into economies driven by platforms, whereas the Finnish study focuses more on the service sector proper and explores ways in which various service types’ productivity and growth might be enhanced through policy under conditions of digitalisation. Compared to the SERVICEGAP studies, this material emphasises innovation rather than liberalisation and is closer to national paths of sectoral development. In fact, policy-oriented research into service digitalisation and innovation is
strikingly national, with decidedly mercantilistic undertones, although the authors agree that a digital single market is a prerequisite for advancement.

So far, an evaluation of the Services Directive and the related Directives and initiatives of the European Commission under a social and employment- and work-oriented perspective is missing in both the policy- and the sector-oriented genres of research. UNI Europa’s study by Torben Schenk (2014) provides a handy and instructive compilation and policy analysis that shows how the Commission limited the far-reaching aims of the Directive and uses different policy instruments (such as the European Semester) to push member states’ policies towards liberalisation. Now, the focus of its liberalisation policies is on the network industries, and on productivity levels in retail and business services.

Investigations of its implementation tend to focus on member states’ compliance and the number of liberalised regulations (European Commission, 2012a). Economic analyses are provided by Badinger et al. (2008) and the IMF’s analysts Corugedo and Ruiz (2014). Analyse countries’ respective labour productivity and profitability in services and suggest to give national competition authorities a stronger role in liberalisation policies.

2.1.2. **Overview: Sector-oriented research**

The impact of the liberalisation of service markets has chiefly been investigated in the sector of services in the general interest, especially by the EU-FP6 Project PIQUE (Hermann and Flecker, 2012) and several other studies (Schönauer and Huws, 2008; Player and Leys, 2008; Mahnkopf, 2008; Hermann et al., 2008a; Brandt et al., 2008b; Greer et al., 2013; Jaehrling, 2014; Mazzucato, 2013). This evidence suggests that service quality, availability and efficiency is not necessarily enhanced by liberalisation as commercial service providers tend to “cherry-pick” lucrative regions and segments of the market and regulation occasionally has difficulty in compensating these effects. It thus critically complements the liberalisation bias of the policy-oriented genre of literature.

A different body of literature that influences both the policy- and sector-oriented research as made up of the technology-driven, “disruptive” prognoses of Brynjolfsson and McAfee (2014), Mayer-Schönberger and Cukier (2013) and the more critical analyses by Zittrain (2009) and Lanier (2013). These authors point out the changes in service economies that come to be dominated by social media and platforms which do not just act as intermediaries but exploit and dominate economic and social relations well beyond the domains of paid employment.

2.2. **Findings: service innovation and policies in co-ordinated market economies**

Generally, reports on service innovation and future service markets argue that with both the productivity gains and global shift of industry to lower-income and cost countries, future growth and value creation in Europe will be contingent on developments in the service sector. Here, observers and policy advisors see considerable room for improvement in the
competitiveness of European service industries. They focus on those services that promise productivity gains through scalability, growth through tradability (Yrkkö et al., 2015), and/or innovation through building ties with customers, the manufacturing sector, and the technologically enabled development of platforms and “ecosystems” (acatech, 2015; Paajanen and Vainionkulma-Immonen, 2015). Yrkkö et al. (2015, pp. 29ff.) report that of the roughly 200,000 Finnish service enterprises, 64% operate in highly scalable subsectors such as trade (both wholesale and retail), restaurants and catering (!), most knowledge-intensive business services, ICT, financial, and publishing and media services. Less scalable are transport and logistic services, cleaning, private sector health and veterinary services, R&D and design, and film, video and TV, that is, both “labour intensive services on the ground” (Holtgrewe et al., 2015b) and the more customer-specific or “tailored” activities. Nevertheless, 76% of enterprises in the “scalable and tradable” category and 73% of “scalable, non-tradable” services are provided by enterprises with fewer than two employees, and another 18 and 23% respectively by businesses with up to nine employees.

Food, retail, real estate and facility services transport, health and temp agencies are services with low tradability where it may be possible to export concepts or franchises but service delivery is spatially bound. Consultancy, accounting, business support, legal and security services and some wholesale segments, technical testing and water and air transport are deemed moderately tradable, and the immaterial and knowledge-intensive ICT services, financial services, advertising, media, R&D and design are highly tradeable. In Finland, some 28% of service businesses are found in the tradeable segment, and from 2007 to 2012, growth here has been above average. Only 46% of “scalable + tradable” enterprises and 12% of the “non-scalable + tradable” companies were active abroad. However, the “scalable + tradable” service segment has both grown by 10% of enterprises in between 2007 and 2012 and increased its productivity by 10% whereas all other segments in Finland lost some productivity, possibly with slack business during the crisis. Nevertheless, this segment is overwhelmingly characterised by small businesses as well. Yrkkö et al. argue that public policy thus should promote disruptive and radical innovations “turning non-tradables into tradable and non-scalables into scalables” (p. 41), and also allow some “healthy competition” in personal services to lower prices and increase demand in that segment.

Contributions to the Finnish Service Economy report (Ministry of Employment and the Economy, 2015) suggest both strategies of productisation and servitisation. Productisation in effect means a sophisticated and dialogic standardisation to render services (more) scalable in order to deliver reliable and transparent “promises” to customers and clients. It is expected to resolve the dilemma of efficiency and customer orientation:

“the aim is not to create an assembly line, identically repeating the process. Instead, the goal is to reduce customer-specific variation in the providing organisation to a jointly determined level” (Toivonen, 2015, p. 88).

However, productisation may not just increase competitiveness but shift the mode of competition, opening up a “commodity trap” (Zysman and Kenney, 2015) for standardised services and products. If services are globalised and standardised, productisation may create
markets in which competition increasingly takes place over price. This puts pressure on profit margins and also on wages and possibly job quality (but see chapters 4.2ff.) in the advanced economies. The challenge for early-industrialised countries and companies is to shift activities to innovation and creation of higher value-added products and services – which, in turn may be commoditised in a next round.

Servitisation, also favoured by the German acatech report (2015) builds on the well-known ideas of the service-dominant logic (Gummesson et al., 2010), for businesses to provide functions, solutions, and bundles of products and services to customers in order to support their value creation. This is supposed to offer higher profit margins, closer customer contact and better utilisation of both tacit and explicit knowledge in the service relationship (Toivonen, 2015) and thus allow for ways out of the “commodity trap”. It starts with dedicated marketing and pricing of product-relates services of design, training or maintenance, but then may extend to supporting customers’ processes and business through additional high value-added consulting or R&D collaborations.

Finally, Toivonen (2015) observes some “kibsification”, that is, a restructuring of formerly routine tasks to become “more and more like expert tasks” in services such as security services, facility support activities and cleaning, rental activities and office administration and support – all lower-to medium-skilled services known for rather problematic working conditions. This may reflect specialisation by service providers aiming to increase value-added in labour-intensive services, some skill upgrading and increasing complexity of services and their objects – but comparative European research on company strategies in these services (Holtgrewe and Sardadvar, 2012) suggests that this is a particular Nordic pattern of professionalization that is rarely found in other parts of Europe beyond a few quality-oriented strategies of companies aiming for a quality-oriented segment of the market.

2.3. Findings: the liberal model

The economic and “liberal” projects share the general reasoning with the European Commission’s strategies for modernising and expanding European service industries. They aim to identify factors and policies that improve services’ contribution to economic growth in the EU and are particularly concerned with the apparent lag of European services behind US service industries in terms of productivity and innovative capacities – an older debate that started with the German “Dienstleistungslücke” (service gap) discovered in the 1990s and then fed into the EU Services Directive of 2006 (van Ark et al., 2008). The argument is that from 1995 onward, the US accelerated their average annual labour productivity growth (=GDP per hour of work) from 1.2% from 1973–1995 to 2.3% from 1995 to 2006, whereas the EU-15 slowed down from 2.4% to 1.5%. The reasons were seen in a slower development of the knowledge economy in Europe, in particular a lower contribution of knowledge-intensive market services (and also production of ICT goods) to labour productivity growth – with the exception of Finland in the case of ICT production and the UK in market services. Indeed, other Anglo-Saxon economies such as Australia and Canada also had higher productivity in market services (p. 38). Uppenberg and Strauss also found Sweden, Denmark, the Netherlands and
Greece as countries with gains in service productivity (2010, p.11). The **distributive trade and financial services** sectors had the most impact and in both, the US contribution to labour productivity was ca 1 percentage point higher than in the EU from 1995 to 2006. Multifactor productivity rather than more or higher-paid labour or capital investment accounted for most of this edge – a somewhat vague measure of overall efficiency of production and organisation that covers further synergies of ICT use and reorganisation and also new and lucrative business models such as “big box” retailing in the US (van Ark et al., 2008, p. 41) with which companies such as Wal-Mart put pressure on incumbent firms and raised overall productivity levels. Not least, these retailers in markets with little regulation of privacy and data protection have developed their capacities to use customer data for finely-grained marketing efforts and differential pricing.

However, in different countries and service sectors the growth of value added is statistically explained by different causes – notably, in figure 2.1 “labour quality” means higher skills, not job quality in a conventional sense. Improvements in skills play a large part in labour-intensive **tourism** and in **trade** (with the exception of Germany). We see that **transport** shows the most considerable total factor productivity. The UK generally has more value added from ICT investments than other countries, like the US and also Denmark and Sweden who are well known for above-average IT spending.

**Figure 2.1:** Growth composition in market services, 1995-2005 (average growth in value added, %)

Source: EUKLEMS; own calculations

Source: Uppenberg and Strauss 2010, p. 18
These results from analysis of the EU-KLEMS database are further elaborated by Uppenberg and Strauss (2010), Mustilli and Pelkmans (2012), and O’Mahony (2013). These authors ascribe the productivity edge of US and Anglo-Saxon (also, partly Dutch) distribution and financial services partly to their earlier and more intense and efficient use of ICT and partly to the lower levels of regulation of both service product and labour markets in the US. They are aware that the increasing role of “multifactor productivity implies that process and service innovations that rely on combined technology use, human resources and organisational restructuring are increasingly firm-specific and hard to imitate, and are also more embedded in national and cultural institutions than innovations in manufacturing. For this reason, they emphasise the deregulation of labour and service product markets above other initiatives such as more coordinated efforts to increase R&D – a somewhat circular argument that in effect favours liberalisation because it makes comparative analysis easier.

Mustilli and Pelkmans (2012) focus on the weakness of the European ICT industry and also the lack of European platform providers that could capture the value-added of comprehensively available market information, enable business experimentation and accelerate the diffusion of knowledge and efficient processes. In particular, large, knowledge-intensive business service providers are somewhat absent in Europe. These authors see a positive correlation of a country’s exports with its imports of knowledge-intensive business services and conclude that a further opening of service markets would further strengthen competitiveness.

The suggestion appears to be that apart from business services’ own productivity their contribution to growth partly consists in boosting other industries’ competitiveness. International trade by service companies is more concentrated than in manufacturing, and it is mostly multinationals and larger service providers companies that are active in international trade (O’Mahony, 2013). The picture for foreign mergers and acquisition is uneven – in line with the diversity of service sector companies. For example, in Denmark they were associated with both increases in labour productivity and employment growth, Belgium and the Netherlands found less growth in productivity but more employment, Austria and Sweden the opposite with higher productivity and less employment growth (after five years), and Finland had employment growth only with a delay of 2-3 years. Companies in less open economies had higher gains in productivity from mergers and acquisitions (O’Mahony 2013). Baumgarten et al. (2010) find that

“a trade-off exists with respect to employment protection legislation in that stricter employment protection legislation is likely to enable productivity gains in service enterprises following foreign acquisition but would have the opposite effect in manufacturing enterprises” (p. 20).

Other papers from the SERVICEGAP project investigate the impact of offshoring and outsourcing. From 1995 to 2008 in Europe some service activities were either offshored or outsourced domestically, whereas in manufacturing domestic outsourcing did not occur (Schwörer, 2012, p.13). This suggests that within a country, there were gains from service outsourcing that are likely to consist in higher expertise of specialists or, more likely, in efficiency or cost savings due to lower wage levels or other personnel cost in service sector
companies. Service offshoring by multinationals resulted in productivity gains, but not so for non-MNCs for whom the cost was regarded as too high. For low-skilled workers with routine jobs, offshoring had a negative impact on their wages.

However, increases in service productivity were unevenly distributed: Sweden, Denmark, the Netherlands, Greece, Ireland and the UK had gains in service productivity similar to the US, whereas in other countries productivity gains were not observed. Such gains were above average in travel and tourism and transport and communication, and below that in finance and business services, where Ireland and the US in particular found increases. Social services had losses in productivity. Patterns of growth and productivity in the market-based services showed considerable variation and were investigated in Germany, France, the UK and Italy, the largest European countries where data were available. Labour-intensive tourism and also finance (especially in the UK) had the largest increases due to hours worked. The contribution of skill increases is limited, but highest in tourism. In transport, total factor productivity, a measure of synergies and increasing efficiencies and, possibly, organisational innovations, was most notable.

All in all, these results do not amount to a consistent positive relationship of liberalisation, transnationalisation and service productivity, let alone to stringent explanations of the intermediary steps. It appears that the heterogeneities of services, the uncertainties around their productivity and the roots of increases blur the findings or that in between countries, sectors and segments of sectors, causal effects are inconsistent and hard to pinpoint. The data thus do not provide compelling evidence for further liberalisation outside of an established political commitment to liberalisation policy, or under the self-serving assumption that fewer institutional constraints make for more easily comparable service economies.

2.4. New technologies and service markets

Technology is regarded as a key driver of service restructuring, with considerable uncertainty about the relationship of productivity increases and growth. The McKinsey consultancy points out for Finland how e-commerce in books, electronics and clothes “leads to increasingly transparent pricing and smaller margins, as a larger share of the value created is captured by consumers” (McKinsey&Co., 2015, p. 58) – which economically points at deflationary developments that could also be considered detrimental to growth.

While the technology-driven visions and somewhat programmatic essays of authors such as Brynjolfsson and McAfee (2011; 2014), Lanier (2013) or Mayer-Schönberger and Cukier (2013) do not fall strictly into the domain of service research, they are influential enough in policy and public debates to merit some consideration. Their key argument is that information and communication technology is reaching a new quality that is capable of transforming economies and societies. The exponentially advancing capacities of ICTs play a part here, as they move the boundaries of computers’ capabilities forward into functions that formerly were exclusive to humans such as speech and image processing, car driving, and also pattern recognition, machine learning and diagnostics. With related progress in sensor technology and
robotics, and ongoing increases in network capacities and bandwidth, ICTs reach deeper into the physical world, rendering computing power and connectivity ubiquitous not just for people but also for digitally enhanced objects in the “Internet of Things”. Brynjolfsson and McAfee are sanguine that this will foster further growth and productivity increases but are aware that

“Consumers are better off and enormous wealth is created, but a relatively small group of people often earns most of the income from the new products or services” (2014, p. 131).

Authors with both Marxian (Huws, 2014; Scholz, 2012; Scholz and Liu, 2011) and liberal backgrounds (Lanier, 2013) explore the economic reasons for the new quality in service and technology markets that are underlying the driving power of technology. The mechanisms of globalised capitalist competition open up a range of contradictions for economic:

“The simplification of labor processes and procedures, leading to the production of highly standardized products in locations with low regulation, dubious attitudes to intellectual property, and cheap labor, opens up access to the market to new companies, unencumbered with any legacy costs or commitments to the development of new products. This produces a competitive environment in which profits are dramatically squeezed” (Huws, 2014).

In spite of driving this process themselves through outsourcing and accessing lower-cost suppliers, companies, for their sins, find themselves confronted with new competitors as these suppliers aim to “move up” their respective value chains and develop their business from the knowledge gathered through outsourcing (cf. Dossani and Kenney, 2003; Holtgrewe and Meil, 2008b). Californian value chain experts Zysman and Kenney (2015) call this mechanism the “commodity trap” and point out how globalisation and standardisation create markets in which competition increasingly takes place over price as products are standardised. This puts pressure on profit margins and also on wages in the advanced economies. The challenge for early-industrialised countries and companies is to shift activities to innovation and creation of higher value-added products and services swiftly enough – which, in turn may be commoditised.

Apart from skill-biased and capital-biased technological change (larger shares of value created going to capital than labour), the properties of many of the new markets play a part here: They become “winner-takes-all markets” that do no longer create normal distributions of income, welfare etc. but power-law distributions in which the top earners receive disproportionately high incomes. For technology innovators, app developers, star creators such as authors, musicians or designers, athletes, business executives or investment bankers, tiny groups receive enormous incomes whereas even the well-performing and professionally successful second division may not be able to make a decent professional living. Partly, “technology increases the reach, scale, or monitoring capacity of a decision-maker” (Brynjolfsson and MacAfee 2014, p. 151), and partly the process is self-enhancing as the system of selecting “stars” is spreading across societies and indeed, across the globe: top earners can afford to choose their professional and personal services from the very top, and with globally available information, communication and distribution, mass consumers may do the same:
“When consumers care mostly about relative performance, even a small difference in skill or effort or luck can lead to a thousand-fold or million-fold difference in earnings” (p. 153).

As social networks and specialised intermediaries also communicate reputation globally, it is for example not uncommon for a holidaymaker to look not just for local specialties locally but for the very best restaurant in her respective price and taste range. All of this renders various service markets more asymmetrical, fashion-prone and volatile – but of course also provides business opportunities for the services of intermediaries distributing reputation. Lanier (2013) points out that this mechanism generally amplifies chance outcomes and minor fluctuations (p. 41). Considering increasing amounts of complexity and uncertainty in modern societies that are partly and increasingly addressed by services (cf. chapter 1.4.3), market mechanisms that enhance network effects are likely to accelerate the building of monopolies or oligopolies and omit variation faster than innovations can create it.

However, it is worth pointing out that service innovations that strategically involve some institutional change are not entirely new and not purely virtual either. The financial innovations of derivatives etc. that brought about the financial crisis of 2007ff. through their specialisation in shifting and obscuring risk can be cited as cases in point. Before that, temporary agencies lobbied for extension of their legitimate business areas (and access to the area of public employment services) for decades (Garsten, 2008).

2.5. Conclusions: Trends and tensions

Both the economic and the more institutional and policy-oriented analyses of service markets and their future productivity have a certain “industrialist” bias, focusing on scalability, tradability and productivity in a standardised sense. They neglect the potential of variety and heterogeneity in various service sectors to create service quality, growth and innovation, and hence, their assumptions need further investigation in that direction. Although the Commission claims that the Service Directive improves opportunities for small and medium-sized enterprises (SMEs) as well, there is little evidence of that and indeed, hardly any empirical investigation of favourable and unfavourable cases.

A certain industrialist bias is obvious in those analyses that take the growth and productivity patterns of liberal service economies as a benchmark for economic strategies (with somewhat ambiguous evidence). Yet, even the German and Finnish strategies tend to interpret their data on service heterogeneity and the share of small businesses somewhat single-mindedly as “space for growth”. However, the large share of small businesses in scalable and knowledge-intensive services could suggest that strategies of expansion and productisation address only a small, albeit influential and vocal segment of services. Considering that service are not just heterogeneous in themselves but basically concerned with handling heterogeneity, contextuality and uncertainty for their customers (see chapter 1.4), service strategies would do well to consider the benefits of some sustained variation in company sizes and types (see chapter 5).
However, for trade unions, the implications of this suggestion can be challenging. Social dialogue in the services frequently hinges on the involvement of large, often multinational flagship companies that have an interest in higher labour and employment standards as competitive advantages and can afford them (Kirov, 2011; Holtgrewe and Doellgast, 2012). SMEs, with their lower union density, limited interest representation and informality of labour relations often present rougher territory for unions and may be regarded with some mistrust. Still, their neglect by service policies may exacerbate labour market segmentation and social dumping as the temptations increase for companies to outsource work to the lower-end and smaller competition (cf. chapters 3.2.2 and 5.2). If for several both economic and social reasons heterogeneity in services is a resource for innovation and quality of services, unions can ill afford not to pursue policies that render this variety inclusive, since otherwise inequalities in working conditions and job quality are likely to come back to haunt them.

While the SERVICEGAP project generally recommends further liberalisation in the services and expects it to increase productivity and efficiency by driving less efficient companies out of the market, this argument is somewhat circular. It ascribes productivity gains and economic growth to liberal and internationalised markets and hence sees the road to ensuring further growth in further liberalisation. However, it is possible that the correlations of internationalisation and economic outcomes are tautological such as the finding that more internationalised and export-oriented companies also source more internationalised services. In the case of mergers and acquisitions the results are ambiguous: the very different effects per country most probably have hidden and specific reasons that do not show on the macro level of country comparisons.

Translating the emphasis on productivity and intensified competition into further liberalisation policy thus may bear some risks: It may further accelerate the development of “winner-take-all markets” or de-facto monopolies in a situation in which many of the more competitive services and platforms are less than embedded in European service societies, and in effect clear the way for the more standardised and disruptive business models of a Wal-Mart or Amazon type that put European service sectors’ capacity for variety and flexible specialisation at risk.
3. LABOUR MARKETS AND SERVICES IN EUROPE: THE PAST AND THE FUTURE

3.1. Types and genres of research

This chapter addresses the development of service sector labour markets both in the recent past and in the future. We first look into the evidence on service sector developments in the past and present (chapter 3.2), then into prognoses for the future (chapter 3.3). Finally, we look into the sectors singled out by the European Commission for job creation in the EU (chapter 3.4). After presenting findings on the subject of employment levels, we look into particular and atypical employment contracts and the issues of precarisation. Indeed, a considerable share of service work expansion has taken the shape of part-time work, zero-hours contracts and low-wage work. When considering future developments, we investigate crowdsourcing employment – which is not meant to suggest that this will be the main employment relationship of the future. Rather, this report argues that this new form of employment combines and possibly exacerbates developments of precarisation that can be observed in the present analog world of services already.

In this chapter, the boundaries between policy-related and sector-oriented research are probably the most permeable as labour markets, employment structures and social dialogue are subjects close to policy and social partnership. ‘Academic’ researchers thus work in European and national programmes or with unions and their research bodies and funding agencies, and policy-oriented researchers publish their work in academic contexts as well. Hence, we confine this distinction to the overview and present findings jointly.

3.1.1. Overview: Policy-oriented research

In recent years, one of the chief subjects of analysis of employment in the service sector has been labour market polarisation and inequality. This is both a subject for academic and more recently also for policy-oriented research. Labour market forecasts are a staple of policy-oriented research, and are generally focused on occupations and especially on future skill needs. In this area, policy-oriented research has taken the concept of “skill-biased technological change” on board quite emphatically, and consequently identified wide needs for skill upgrading – although we find some scepticism about further increases in tertiary education as opposed to more and better vocation-oriented training. There is also some tension between the emphasis on productivity of the “skill-biased technological change” paradigm in the service sector and the recent evidence on employment creation that – in varying amounts – has taken place in the sectors of care, social and personal services. It appears that these sectors, given sufficient investment, are also expected to create further employment growth where market and commercial services may face more automation and job losses (see chapter 3.3).
With regard to forms of employment contracts that depart from standard employment, the investigation of low-wage work and “occupations with multiple disadvantages” has only recently reached policy-driven research initiatives, in particular by Eurofound (Durán López et al., 2015) and in the EU-FP7-funded *walqing* project (www.walqing.eu). Atypical and precarious employment is also investigated by recent Eurofound research (Mandl et al., 2015).

We can distinguish such prognoses that emphasise continuity and extrapolate from existing labour market structures and more recently those that emphasise the disruptive potential of new technologies to substitute work. Policy-oriented research by CEDEFOP (CEDEFOP, 2011, 2014, 2012, 2013a, 2013b), OECD (2012) or CEPS (Begg et al., 2010; Begg, 2014; Beblavý and Maselli, 2014) mostly focuses on continuity, and is to some extent taken up by current policy (European Commission, 2012b, 2012e, 2012c, 2012d, 2013b, 2014c, 2014b).

In current policy debates on labour market developments as well as service and product markets (see chapter 2.4), prospects of technology-driven disruption play a central part, in particular the “Oxford study” by Frey and Osborne (2013) and the debates around a “new machine age” (Brynjolfsson and McAfee, 2014) that suggest that labour market polarisation will be replaced by automation of the very low-wage and/or low-skilled jobs that have expanded in recent years (cf. also Bowles, 2014 for Europe). In this context, the possibilities of crowdsourcing and online platforms to substitute highly precarious contract work for (more or less) regular employment have commanded attention from unions (IG Metall-Vorstand, 2013; Benner, 2015) and also from cities and regions as platforms such as Uber or Airbnb are challenging current services in transport or hospitality.

### 3.1.2. Overview: Sector-oriented research

Labour market polarisation and service sector employment is the domain of the comparative institutionalist type of research that has been investigating various service sectors (Wren, 2013b; Batt et al., 2009b; Bosch and Lehndorff, 2005b; Gautié and Schmitt, 2010; Doellgast et al., 2009; Gautié et al., 2010) to explore the interplay of labour market institutions, employment regimes and sectoral dynamics. The volume edited by Wren (2013) systematically puts the service sector into a modified “varieties of capitalism” paradigm. We shall also look into recent research on the dualisation or polarisation of labour markets (Emmenegger et al., 2012c; Karamessini and Rubery, 2013; Fernández-Macías and Hurley, 2014; Fernández-Macías and Vacas, 2015; Hurley et al., 2013).

The consequences of employment expansion and labour market deregulation became obvious to researchers in the declining quality of low-wage work in recent years (Gautié and Schmitt, 2010; Durán López et al., 2015; Warhurst et al., 2012; Bolton and Houlihan, 2009a; Holtgrew et al., 2015b). In this context, low-wage work and atypical employment are consistently found to concentrate in the service sector.

For crowdsourcing (Barnes et al., 2015; Felstiner, 2011; Kawalec and Menz, 2013; Kleemann et al., 2008; Holtgrew, 2014; Benner, 2015; Lehdonvirta et al., 2014; Lehdonvirta and Ernvist,
2011), some empirical research has already been published in recent years, and the technology-based theory on future labour markets is instructive as well (Scholz, 2012; Lanier, 2013; Lehdonvirta and Ernkvist, 2011). The COST Action on Virtual work also has presentations of ongoing research (dynamicsofvirtualwork.com), and it has dedicated one conference to policy implications of crowdsourcing (http://dynamicsofvirtualwork.com/brussels-workshop-presentations/).

3.2. The service sector itself: employment growth and employment contracts in the present

3.2.1. Employment growth up to the present

The share of service employment is traditionally treated as an indicator of societies’ modernity, but different indicators measure different things: the share of the service sector in employment, the share of service occupations, number of workers or volume of work in terms of hours worked. Larger service sectors may measure “more jobs” or just “more outsourcing” of service functions from other sectors. “More service workers” may be explained by shorter work hours, by part-time work or by a more vibrant sector. Finally, different types of services imply different profiles of service societies.

The variations in service sector employment and quality of work were first systematically investigated by research from the EU-FP5-funded NESY (= New Forms of Employment and Working Time in the Service Economy) project (Mermet and Lehndorff, 2001; Bosch and Lehndorff, 2005b) which also observed distinct profiles of service societies and service sector industries. The project aimed to identify the prerequisites for a “high road” of skilled, good quality work in the services. It was innovative and influential in combining analyses of national labour markets, comparing sector-specific developments in the participant countries and company case studies. Employment growth areas in the 1990s were found to include the high value-added private sector activities in business services and IT, the public-sector dominated sectors of health, social work and education, and the lower value-added low-wage sectors of retail and hotels (Smith, 2005) that provided labour market entry to newcomers and people returning to the labour market. Notably, Bosch and Wagner (2005) find a negative correlation of income differentiation and service employment level. This is due to the high service employment in the Nordic countries but contradicts the productivity-based assumption of the “cost disease” (see chapter 1.4.2) that an expansion of the service sector follows high income inequality or generates it. The volume edited by Bosch and Lehndorff (2005b) drew attention to the impact of national employment patterns on work and employment conditions and emphasised that the associations of service work, women’s work and atypical employment (or men’s professional work and long working hours) looked quite different in the Nordic, Continental and Liberal countries, depending on their respective welfare state and gender regimes, the gender pay gap and the incentives to work provided by these respective regimes.
Distinct profiles of service societies were analysed by Bosch and Wagner (2005) through an analysis of the volume of service work (that is, the hours worked in the sector) per economically active person in order to control for differences in working hours and shares of part-time work (see Table 3.1).

Table 3.1: Shares of the volume of service work by service category (1999) (service sector = 100)

<table>
<thead>
<tr>
<th>Country</th>
<th>Business-oriented services</th>
<th>Consumer-oriented services</th>
<th>Distributive services</th>
<th>Social services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>16.3</td>
<td>3.0</td>
<td>31.0</td>
<td>48.0</td>
</tr>
<tr>
<td>Denmark</td>
<td>16.9</td>
<td>2.7</td>
<td>28.7</td>
<td>51.5</td>
</tr>
<tr>
<td>Germany (East)</td>
<td>13.0</td>
<td>4.9</td>
<td>28.9</td>
<td>52.9</td>
</tr>
<tr>
<td>Germany (West)</td>
<td>17.3</td>
<td>4.6</td>
<td>31.8</td>
<td>46.1</td>
</tr>
<tr>
<td>Spain</td>
<td>15.7</td>
<td>12.9</td>
<td>32.1</td>
<td>39.4</td>
</tr>
<tr>
<td>Finland</td>
<td>16.7</td>
<td>4.9</td>
<td>28.5</td>
<td>49.9</td>
</tr>
<tr>
<td>France</td>
<td>18.6</td>
<td>6.9</td>
<td>29.0</td>
<td>45.4</td>
</tr>
<tr>
<td>Greece</td>
<td>11.8</td>
<td>12.5</td>
<td>33.3</td>
<td>42.3</td>
</tr>
<tr>
<td>Great Britain</td>
<td>21.9</td>
<td>5.1</td>
<td>30.7</td>
<td>42.2</td>
</tr>
<tr>
<td>Ireland</td>
<td>20.6</td>
<td>9.5</td>
<td>31.5</td>
<td>38.3</td>
</tr>
<tr>
<td>Italy</td>
<td>14.8</td>
<td>6.4</td>
<td>28.9</td>
<td>49.8</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>24.5</td>
<td>6.2</td>
<td>26.9</td>
<td>35.3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>22.6</td>
<td>3.4</td>
<td>29.4</td>
<td>44.5</td>
</tr>
<tr>
<td>Austria</td>
<td>15.9</td>
<td>8.2</td>
<td>35.6</td>
<td>40.0</td>
</tr>
<tr>
<td>Portugal</td>
<td>11.7</td>
<td>14.2</td>
<td>29.7</td>
<td>44.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>17.1</td>
<td>3.0</td>
<td>25.8</td>
<td>54.1</td>
</tr>
</tbody>
</table>


The profiles of European service societies then are distinct along the lines outlined in chapter 1.5.2. South European countries were found to have the lowest shares in business-oriented services and high shares in consumer-oriented services, that is, tourism. The highest share of business services was found in the UK, the Netherlands and Luxemburg followed by Ireland. Business-oriented services were smaller but still significant in Germany, Finland, Austria or Belgium, where a considerable share of these functions may still be provided within manufacturing sectors (Baethge and Wilkens, 2001). Social services accounted for the largest share of services across Europe, and Sweden, East Germany, Denmark and Finland took the lead. The authors conclude that

“High shares for business-oriented services may reflect a highly developed financial industry (as in Luxemburg and the UK) or a high-quality manufacturing sector with many services upstream and downstream of production (as in West Germany, France, Sweden or Finland). The figures for consumer-oriented services presumably reflect the
specialisation of South European countries in tourism. The high share of social services in the Scandinavian countries is undoubtedly linked to their highly developed welfare states” (Bosch and Wagner, 2005, p. 47f.)

The study by Uppenberg and Strauss (2010) of the European Investment Bank provides a more recent overview of European service sectors. These authors find that from 1995 to 2005, the service sector accounted for ca 2/3 of total value added and 4/5 of real value added growth. Differences among European countries in growth were also mostly explained by the respective development of their service sectors. The service sector had the additional charm of increasing both its employment and productivity from 1995 to 2005. However, European countries continued to have quite varied profiles in service employment expansion as Figure 3.1 shows.

**Figure 3.1:** Growth in service sector employment (sub-sectoral contributions to average annual growth, 1995-2005, %)

With regard to growth, these profiles are no longer simply mapped on regime types, possibly due to the ceiling effects of already-high shares of particular services. Here, it is not just Nordic countries but also Spain, Portugal and Greece, and also Ireland that have had considerable growth in the social services and also in trade and tourism. Business service expansion in Southern Europe remains limited. In Sweden, Denmark, Austria and Germany, where service expansion at large is the lowest, growth in business services now leaves that of the social sector behind. In transport and communication, Luxembourg, Spain and Ireland stand out.

Vandekerckhove and Ramioul (2011; 2015) have analysed the development of employment in expanding sectors in Europe with regard to “business functions” in each sector, based on the European Labour Force Survey. Business functions consist of clusters of ISCO-based occupations that distinguish between the respective core functions (for example, sales in retail is a core function), administrative and support functions, and also professional and operative
functions. This allows an analysis of structural changes of divisions of labour within and between firms and sectors, such as

“growing bureaucratization, growing importance of technical experts, increasing or decreasing knowledge intensity of production processes, growing market orientation and so on.” (2015, p. 47f.)

Bureaucratization thus suggests increases in the share of administrative personnel, specialization increases in core staff, and professionalization increases in knowledge intensity. They find a convergent trend of professionalization, that is, increasing shares of higher-skilled occupations in those sectors in Europe that have expand most in absolute and relative terms – of which the majority are service sectors. Other trends are contingent on the respective sector, and in each sector the composition of employment varies considerably. For example, core functions have the highest share in Health and Social Work, Research and Development, and Hotels and Restaurants, and Real Estate and Wholesale Trade have the highest share of administrative staff, but also considerable shares of professional workers.

Table 3.2: Structure and growth of business functions in 12 growing sectors and by region EU_27 + Norway (2000–2007, percentages)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Administration</th>
<th>Core</th>
<th>Support</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Fabrication</td>
<td>14.3 (-0.2)</td>
<td>76.2 (-1.0)</td>
<td>9.5 (+1.2)</td>
<td>16.2 (+2.3)</td>
</tr>
<tr>
<td>Precision Manufacturing</td>
<td>19.2 (+0.7)</td>
<td>71.8 (-0.7)</td>
<td>9.0 (+0.0)</td>
<td>43.7 (+8.3)</td>
</tr>
<tr>
<td>Recycling</td>
<td>17.2 (+4.3)</td>
<td>44.3 (+0.9)</td>
<td>38.5 (-5.2)</td>
<td>12.8 (+9.7)</td>
</tr>
<tr>
<td>Construction</td>
<td>12.8 (+0.0)</td>
<td>83.0 (+0.1)</td>
<td>4.2 (-0.1)</td>
<td>14.2 (+0.8)</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>33.3 (-2.7)</td>
<td>55.7 (+1.9)</td>
<td>11.0 (+0.8)</td>
<td>43.9 (+1.2)</td>
</tr>
<tr>
<td>Hotels and Restaurants</td>
<td>21.8 (+0.7)</td>
<td>75.9 (-1.1)</td>
<td>2.3 (+0.4)</td>
<td>20.3 (+0.9)</td>
</tr>
<tr>
<td>Transport and Travel Support</td>
<td>20.8 (-2.1)</td>
<td>68.4 (+2.2)</td>
<td>10.8 (-0.1)</td>
<td>19.1 (+2.7)</td>
</tr>
<tr>
<td>Real Estate</td>
<td>43.2 (+1.5)</td>
<td>52.0 (+0.4)</td>
<td>4.8 (-1.9)</td>
<td>49.9 (+5.5)</td>
</tr>
<tr>
<td>Computer Service</td>
<td>26.5 (-3.0)</td>
<td>69.5 (+2.7)</td>
<td>4.0 (+0.3)</td>
<td>85.0 (+4.1)</td>
</tr>
<tr>
<td>Research and Development</td>
<td>19.8 (-0.5)</td>
<td>78.4 (-0.1)</td>
<td>1.8 (+0.6)</td>
<td>85.3 (+0.6)</td>
</tr>
<tr>
<td>Health and Social Work</td>
<td>12.4 (+0.2)</td>
<td>84.4 (-0.2)</td>
<td>3.1 (+0.0)</td>
<td>52.4 (+0.1)</td>
</tr>
<tr>
<td>Sewage and Refuse Disposal</td>
<td>14.6 (+1.3)</td>
<td>75.9 (-0.8)</td>
<td>9.5 (-0.5)</td>
<td>11.5 (+2.8)</td>
</tr>
<tr>
<td>Nordic</td>
<td>13.2 (-0.1)</td>
<td>82.6 (-1.1)</td>
<td>4.2 (+1.2)</td>
<td>35.8 (-0.2)</td>
</tr>
<tr>
<td>North-Western Isles</td>
<td>25.6 (+0.9)</td>
<td>70.0 (-1.0)</td>
<td>4.4 (+0.1)</td>
<td>37.7 (+0.0)</td>
</tr>
<tr>
<td>Continental</td>
<td>17.0 (-1.6)</td>
<td>77.8 (+1.8)</td>
<td>5.2 (-0.2)</td>
<td>37.8 (+2.2)</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>17.8 (+1.9)</td>
<td>77.1 (-2.1)</td>
<td>5.1 (+0.2)</td>
<td>29.5 (+4.2)</td>
</tr>
<tr>
<td>Eastern</td>
<td>15.4 (+1.6)</td>
<td>78.3 (-1.2)</td>
<td>6.3 (-0.4)</td>
<td>34.8 (+0.2)</td>
</tr>
<tr>
<td>Total</td>
<td>18.1 (-0.1)</td>
<td>76.8 (+0.0)</td>
<td>5.1 (+0.1)</td>
<td>35.1 (+1.6)</td>
</tr>
</tbody>
</table>

Source: Vandekerckhove and Ramioul, 2015, p. 45

There is also some striking country variation:
“the North-Western Isles have a very high and increasing share of administration, but bureaucratisation is found in the Mediterranean and Eastern Countries as well. Specialization is unique to the Continental countries, and professionalisation is found mainly in the Continental Countries and in the Mediterranean Countries. This points in the direction of increasing convergence, however abruptly halted by the Great Recession.” (p. 48)

Based on this work, McClelland and Holman analysed the data of the European Working Conditions survey (2011b; 2015; Holman, 2013) with regard to the quality of work in growing and shrinking sectors. Since the average job quality score in the study is 53.84, retail, hospitality, refuse disposal and household activities emerge as growing jobs with poor quality.

Table 3.3: Job quality within subsectors of growing sectors (two-digit NACE)

<table>
<thead>
<tr>
<th>Subsector</th>
<th>2-NACE</th>
<th>TJQI score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial intermediation, except insurance ...</td>
<td>65</td>
<td>68.05</td>
</tr>
<tr>
<td>Insurance and pension funding, except ...</td>
<td>66</td>
<td>67.87</td>
</tr>
<tr>
<td>Computer and related activities</td>
<td>72</td>
<td>66.89</td>
</tr>
<tr>
<td>Activities auxiliary to financial intermediation</td>
<td>67</td>
<td>65.90</td>
</tr>
<tr>
<td>Activities of membership organisations ...</td>
<td>91</td>
<td>63.02</td>
</tr>
<tr>
<td>Research and development</td>
<td>73</td>
<td>62.58</td>
</tr>
<tr>
<td>Public administration and defence</td>
<td>75</td>
<td>62.11</td>
</tr>
<tr>
<td>Education</td>
<td>80</td>
<td>61.47</td>
</tr>
<tr>
<td>Health and social work</td>
<td>85</td>
<td>58.72</td>
</tr>
<tr>
<td>Other business activities</td>
<td>74</td>
<td>58.31</td>
</tr>
<tr>
<td>Recreational, cultural and sporting activities</td>
<td>92</td>
<td>58.27</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>70</td>
<td>58.02</td>
</tr>
<tr>
<td>Wholesale trade and commission trade ...</td>
<td>51</td>
<td>57.28</td>
</tr>
<tr>
<td>Renting of machinery and equipment ...</td>
<td>71</td>
<td>57.19</td>
</tr>
<tr>
<td>Sale, maintenance and repair of motor ...</td>
<td>50</td>
<td>53.88</td>
</tr>
<tr>
<td>Other service activities</td>
<td>93</td>
<td>53.17</td>
</tr>
<tr>
<td>Retail trade, except of motor vehicles and ...</td>
<td>52</td>
<td>52.05</td>
</tr>
<tr>
<td>Construction</td>
<td>45</td>
<td>51.94</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>55</td>
<td>48.95</td>
</tr>
<tr>
<td>Sewage and refuse disposal, sanitation ...</td>
<td>90</td>
<td>48.35</td>
</tr>
<tr>
<td>Activities of households as employers of ...</td>
<td>95</td>
<td>41.49</td>
</tr>
</tbody>
</table>

Source: McClelland and Holman, 2015, p. 59

Calculating back from the typology of good and poor quality jobs developed by Holman and McClelland (2011b), the authors estimate the contribution of the service sector to the creation of “better” and “worse” jobs in between 2000 and 2008. They find that

“the increase in jobs from 2000 to 2008 can be estimated to have created 8.19 million high quality jobs and 8.48 million low quality jobs. [...] while more ‘better’ jobs have been created from 2000-2008, an equal number of ‘not-better’ jobs have been created over the same period. Furthermore, the shift towards services has only resulted in an extra 895,900
high quality jobs being created from 2000-2008, which is rather small increase when compared to the total number of high quality jobs in 2008 (100.428 million) and the total number of jobs in 2008 (226.552 million). From a policy perspective this implies that the shift towards service sector cannot be relied upon to increase the proportion of high quality jobs and that active intervention is needed to increase the proportion of high quality jobs. Indeed, based on current evidence, even if all jobs were service jobs, then the proportion of high quality jobs would still be outweighed by low quality jobs.” (Holman and McClelland, 2011a, p. 5)

Drawing on the different service society profiles of developed countries, a recent volume edited by Anne Wren (Wren, 2013a; Wren et al., 2013) explores the “political economy of the service transition” within the “varieties of capitalism” perspective (Hall and Soskice, 2001) that has become common in comparative institutionalist research. This focuses on the institutional and policy features of various developed economies (mostly using OECD and some EU data) and investigates their impact on employment in the service sector. In general, over time, tertiarisation, that is, increasing shares of service sector employment, occurs in different patterns for higher- and lower-skilled workers. From the 1970s onwards, overall increasing shares of the higher-skilled are employed in the tradable parts of the service sector (see chapter 1.7) that are exposed to global competition – that is, business and financial services, ICT, engineering etc.. However, the Nordic countries retain comparative high employment of highly-skilled workers in the welfare and social services sector as well, and Germany, in a well-known pattern, has a high proportion of highly-skilled employment still within manufacturing. Low-skilled workers are losing employment shares in agriculture, mining and manufacturing as well, but find increased employment in those “sheltered” or non-dynamic service sector segments that cannot easily be globalised. This means that the expansion of the service sector, in general, is both driving higher wage inequality and driven by it (or by less co-ordinated collective bargaining), as the wage gaps between high- and low-productivity services are larger than in manufacturing. In addition, workers in the higher-paid services are likely to need and to afford more personal and non-dynamic services, especially as women give more time to paid work and less to housework and self-provision of care, food etc. Tertiarisation is thus associated with some polarisation of labour markets through divergent productivity levels – but there are different paths of service expansion with distinct effects on inequality. The Nordic countries, at both ends of the labour market, retain higher employment in the public and welfare sectors and also higher equality and ongoing wage co-ordination. With public investment into tertiary and other education, they continue to represent a “social-democratic” path of tertiarisation, supported by higher taxation and public spending.

In line with the “varieties of capitalism” literature that also investigates education and vocational training (Estevez-Abe et al., 2001; Thelen, 2006), the volume by Wren (2013) includes the funding of the education system that generates high skills in the model that explains the varieties of European service societies. Liberal or Anglo-Saxon societies leave more of this to the market. There, students and their families invest more private funds into tertiary education, which in turn provides incentives for graduates to go for high salaries in the tradable services to pay off these debts or recoup their investments. Nordic societies provide more state-funded higher education to their citizens at the expense of high taxation. They also
offer more highly-skilled social services that absorb these graduates. These patterns of tertiarisation represent different “high-skills equilibria”. The Liberal one is considered to be more vulnerable to direct market volatility, and the Nordic one more at risk by shifting political coalitions and eroding public support for the levels of public investment and taxation. The potential of those Continental employment regimes (such as Germany and Austria) that keep an overall higher share of employment in manufacturing to expand their competitive service sectors is viewed somewhat sceptically by the authors. However, it is possible that they, writing from more of an Anglo-Saxon perspective, overrate the power of the “service transition” and underestimate the potential for employment creation and innovation in “servitised” manufacturing in Europe, taking deindustrialisation as too much of a given.

3.2.2. Labour market polarisation and dualisation

There is a distinct body of literature on the polarisation of labour markets since the 1990s that is of relevance to the service sector. Firstly and most simply, a large and still increasing part of employment is in the service sector. Hence, service sector developments are somewhat indistinguishable from the labour market at large. Hence, general explanations of labour market polarisation apply to services as well. The most influential explanation currently appears to be skill-biased technological change (Autor et al., 2003; Goos et al., 2009). This is the assumption that information and communication technologies have a different impact on different types of jobs, and that a job’s content of routine renders it prone to automation. New technology thus leads directly to labour market polarization of “lovely” and “lousy” jobs (Goos and Manning, 2003): Knowledge-intensive and highly skilled work is expected to be complemented by new technologies, enhanced in its productivity and thus more in demand. Medium-skilled work in manufacturing, clerical or administrative functions is prone to automation due to its routine content. As other jobs are relocated or automated, the low-skilled increasingly tend to concentrate in those jobs that are not easy to automate. Of these jobs, a large part are spatially distributed services that care for people or infrastructures.

Eurofound (Fernández-Macias and Hurley, 2014; Fernández-Macias and Vacas, 2015; Hurley et al., 2013; Hurley et al., 2015) in its European Job Monitor and elsewhere regularly analyses job polarisation, but argues that

“polarisation has occurred in specific countries and specific periods rather than being a prevalent form of structural change occurring across time and across developed economy labour markets” (Fernández-Macías and Hurley, 2014, p. 3).

These authors find that in Europe, polarisation is observed with regard to wages but not to skill levels which show more of an upgrade. As we shall see, this could suggest that these skill increases are no longer proportionately converted into higher wages. This research finds that polarisation in Europe generally is skewed to the higher-skilled side, and that technological change is not the only driver of polarisation. Another, related driver is globalisation. Globalisation means that reasonably paid manufacturing jobs and also the tradable jobs in services that do not require direct social interaction, are relocated to lower-wage places. Then,
spatially tied lower-wage and less productive segments of the service sector stay “behind”, and make up a larger and more problematic share of the labour market. Within countries, the outsourcing of generic service functions that often shift work to sectors with less costly collective agreements, have a similar effect, also driving down wages and increasing their spread. Indeed, the Eurofound findings provide a complex picture. In general, during the crisis, the service sector in the EU has compensated for the considerable employment losses in construction and manufacturing, gaining 2.8 million new jobs in the EU in between 2011 and 2014. In between 2011 and 2013,

“the rate of this growth increased and shifted from predominantly publicly funded sector (health and education) early in the crisis to private service sectors, such as professional services, management consultancy and information technology, afterwards” (Fernández-Macías and Hurley, 2014, p. 5).

This suggests a further expansion of the knowledge-intensive business-to-business services during that period. However, the public sector services gained again between 2013 and 2014 with growth concentrating in the lower-wage quintiles, among cleaners and helpers in the social and health services (Hurley et al., 2015). The non-knowledge-intensive services also grew in the lower-wage quintiles, and the UK’s food and beverage sector accounted for the largest part of that growth (p. 19). Men are increasingly entering low-paid services (p. 27). The growth among top earners that was noted in the non-knowledge-intensive service sectors from 2011 to 2013 consists of professionals in wholesale and retail. From 2011 to 2014 it appears that the pattern overall has shifted to more evenly distributed employment growth (Hurley et al., 2015).

**Figure 3.2:** Employment shifts (in thousands) by job-wage quintile and service sector grouping, EU, 2011 Q2-2014 Q2

Source: EU-LFS, SIES (author’s calculations)

Nevertheless, employment gains in recent years concentrate on those with tertiary qualifications, and workers with secondary education only find more jobs in the lowest wage quintile. However, recent graduates do not benefit from skill upgrading (Figure 3.3), and the authors comment,
“it is striking that the most recent graduates make no positive contribution to top-quintile employment in an increasingly knowledge-based economy that is supposed to attach a great premium to freshly acquired skills” (Fernández-Macías and Hurley, 2014, p. 24).

However, neither statistically nor conceptually do market mechanisms, technological change and globalisation fully explain labour market polarisation where it is observed. Comparative institutionalists and welfare-state theorists (Esping-Andersen, 1993; Emmenegger et al., 2012c; Wren, 2013b) show how welfare-state and labour market policies moderate or exacerbate labour market polarisation, and in particular, the contribution of the personal and social services to it, by providing employment and funding, and by shaping households’ demand.

Service sector expansion appears to be related to labour market polarisation through a range of interrelated processes (Emmenegger et al., 2012b; Carré et al., 2012; Holtgrewe et al., 2015b; Krämer, 2011): economically, the “cost disease” argument (see chapter 1.4.2) suggests that productivity increases are achieved more easily in manufacturing or the “scalable” services than in the less knowledge-intensive, spatially-dependent services that are more labour-intensive. Thus, pure markets in these services will allow for lower wages only. When these services expand, the share of lower wages in an economy will rise. This is the more likely in personal or business-to-consumer services where higher wages cannot be easily absorbed.

Figure 3.3: Employment change (in thousands) by job-wage quintile and age for third-level graduates, EU, 2011 Q2 to 2013 Q2

Note. Data for 26 Member States, Germany and the Netherlands excluded due to data breaks.
Source: EU-LFS, SES (authors’ calculations)

Source: ibid.

A more political argument is that for historic and structural reasons the new service jobs are less regulated and organised than manufacturing work where in the “old” industrialised counties unions have been powerful enough to achieve middle-class wages for medium- and even low-skilled work (Palier and Thelen, 2012). Hence, with less union density and bargaining
power in the service sector, wages and working conditions in the new and growing segments suffer.

In addition, new service jobs are likely to be filled by newcomers or outsiders to the respective labour markets or labour market segments: women, young people beginning their careers, and migrants, possibly also older workers and people with discontinuous careers. These groups may lack alternatives and thus have to accept more precarious working conditions, or they may have distinct preferences for which they make concessions in other aspects of their jobs: for example women with care responsibilities who choose part-time jobs and in this way provide employers with numerical flexibility (Recio et al., 2015). Feminist research (Game and Pringle, 1984; Cockburn, 1988; Sardadvar et al., 2015; Acker, 1993) points out that unequal perceptions and valuations of women’s and men’s work, and also racism and ethnic discrimination (Dwyer, 2013) contribute to the reproduction of inequalities in wages or working conditions, either directly or through biased perceptions of the skills and demands in jobs. Hence, gender and ethnic inequalities are both results from and inputs into labour market inequalities.

The volume edited by Emmenegger et al. (2012c), based on the EU-funded Network of Excellence RECWOWE (= Reconciliation of Work and Welfare), explores the political dimension labour market polarisation under the heading of “dualisation”, investigating Continental and Nordic welfare states in particular. Here, insider/outsider logics apply: Instead of liberalising labour markets completely,

“liberalization was partial, as it has been primarily applied to ‘new’ jobs in the tertiary sector, while an ever-shrinking core of insiders continues to enjoy relatively generous employment and social protection” (Emmenegger et al., 2012a, p. 315).

“Outsiders”, however, or “newcomers”, are constituted in different ways in different countries. They may come from different vulnerable groups (Hohnen, 2012; Hohnen et al., 2015), depending on each country’s gender, migration or ethnic minority regime, and may encounter different regulations and inequalities on the respective secondary labour markets as employers make use of different modes of atypical employment (including part-time work).

Both the evidence on different service sector profiles and the development of employment strongly suggest that skill-biased technological change is not a quasi-natural law. Nor are productivity differentials sufficient in explaining labour market polarisation in the services. Rather, labour market policies, public investment and the power resources of collective actors structure the perception of services as cost or investment respectively. Actual developments of employment in the service sector can and actually need to be shaped by policies that address the welfare state, the labour market, and also innovation. Buchanan et al. (2013) argue that indeed, the expansion of the highly productive business service “core sectors” in the US and UK have not been able to deliver sufficient employment:

“leading sectors (finance for the UK, ICT for the USA and mining for Australia) generated significant output and profit growth but little increase in net employment. Instead there was a high degree of similarity about where the extra jobs came from: in all three cases
the extra jobs were in health, education, welfare, and social control (HEWS). These jobs did not so much crowd out the many diverse activities in the private sector but ‘fill in’ for the failure of such activities to create new employment” (Buchanan et al., 2013, p. 401).

As the public sector submits to fiscal constraints and austerity policies, it develops its own mechanisms of labour market polarisation (Dwyer, 2013) through deskilling and utilisation of precarious work (see chapters 3.2.3 and 3.2.5) that draws on race, ethnicity and gender segmentation and on institutionalised devaluations of service work, especially if it is performed by women.

3.2.3. Flexible and precarious work

The service sector is almost traditionally known for various types of atypical employment that range from fairly regular part-time work to increasingly precarious arrangements such as fixed-term contracts, on-call work or zero-hours contracts (see chapter 3.6), freelance work and crowdsourcing. In several configurations, the classic service triangle (in which a worker is employed by an employer, most often a company, to provide services to an external client, see chapter 1.4.1) is opened up further or multiplied through agency work, subcontracting, posting of workers or use of freelancers and more or less bogus self-employment. In all these instances, the purposes are to provide flexibility, firstly for employers at low or lower cost than in a “normal” employment relationship, then also for workers to improve their work-life balance, allow time for care activities, education and training, or to reduce strains on health and wellbeing.

It is thus not surprising that since 2000, and in particular with the crisis, “normal” full-time and open-ended employment has further reduced its share in all employment. In the 2010 “Agenda for new skills and jobs” the European Commission, based on comparative European analyses such as the findings by Davoine et al. (2008), pointed out that

“there is no trade-off between quality and quantity of employment: high levels of job quality in the EU are associated with equally high labour productivity and employment participation” and that “the working environment plays a crucial role in enhancing the potential of the workforce and is a leading competitiveness factor.” (European Commission, 2010)

The agenda recognised that in recent years the increased use of atypical employment and the diffusion of new forms of work without appropriate working conditions put downward pressures on job quality, and reductions in accidents were balanced by increased work intensity and increases in involuntary part-time and temporary work (cf. Eurofound, 2012).

in spite of that insight, from 2011 onwards, destandardisation of work has continued. Hurley et al. (2015) write

“There is evidence that full-time, permanent employees have been replaced by non-standard or atypical workers, especially in low-paid but also in mid-paid jobs, and the traditional ‘standard’ employment relationship is increasingly the privilege of those in
well-paid jobs. The countries in which the non-standard share of employment has been growing fastest include the four most populous Member States – France, Germany, Italy and the UK – as well as Austria, Cyprus, the Czech Republic and the Netherlands” (p. 25).

On the other hand, there is some evidence of some re-regulation: Part-time work and fixed-term employment have been regulated for a while through EU directives that require equal treatment and appear to have brought some improvements. Attempts at formalising informal work in household and care services (see chapter 3.4.3) or bogus self-employment aim to better protect workers, give them (often limited) access to some social security and increase social security contributions.

The key and obvious explanation for the service sector’s association with atypical employment is flexibility. The integration of customers and their demands and resources into the service process render this process somewhat open-ended and unpredictable. Service organisations typically lack “a temporal buffer between production and consumption” (Korczynski, 2002, p. 74f.; Smith, 2005), and need to perform their services just-in-time by definition – unless they find ways of assigning interaction and customer involvement to particular units. Since many services are also labour-intensive, they have strong incentives to adapt workers’ working times and contracts as closely as possible to customer frequency or to other immediate demands of work. In addition, they may need new and flexible skills in communication and interaction. An established systematic that distinguishes between internal and external flexibility (or labour markets) and functional and numerical flexibility is presented in Table 3.2:

**Table 3.4: Types of flexibility**

<table>
<thead>
<tr>
<th>Numerical</th>
<th>Functional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>Multitasking, job enrichment, multiskilling,</td>
</tr>
<tr>
<td></td>
<td>groupworking, project organisation</td>
</tr>
<tr>
<td>External</td>
<td>Subcontracting, outsourcing, freelance work</td>
</tr>
<tr>
<td>Fixed-term contracts, freelance work, temporary agency work, temporary layoffs/seasonal work, irregular work</td>
<td></td>
</tr>
</tbody>
</table>

Source: Holtgrewe et al., 2009a, p. 3, based on Atkinson and Meager, 1986; Goudswaard and Nanteuil, 2000; Wickham, 2005; Huws, 2006

Comparing atypical employment internationally, the preferred and most common types of flexibility vary with the types of work and the industry, the knowledge intensity or skill level, temporal and spatial constraints and, again, the institutional environment and labour market regulation. While numerical flexibility is often (but not necessarily, see below) associated with standardisation in work organisation and with lower-skilled or deskilled work (see chapter 4), functional flexibility is more likely in non-standardised, innovative and knowledge-intensive work environments – but both strategies have their own downsides and dilemmas. Institutional variation became clear in the comparative research of the 2000’s (Bosch and Lehndorff, 2005b). First, the comparison of such standardised services as the fast-food industry (Royle, 2004, 2000) and in particular, call centres (Arzbächter et al., 2002; Frenkel et al., 1999;
Batt et al., 2009b; Shire et al., 2009), then a wider investigation of service industries (Bosch and Lehndorff, 2005b) showed repeatedly how companies tend to use the flexible work forms that are most opportune in the respective institutional environment – fixed-term employment in the segmented labour markets of Southern Europe, feminised part-time work and short-hours part-time in the Continental “male breadwinner” regimes; zero-hours contracts and casual work in the liberal market economies or the unregulated or liberalised segments of other regimes. Yet, in a very recent volume, Eichhorst and Marx (2015a) are arguing that on the level of occupations, atypical employment and job quality are driven rather more by market and productivity influences than by institutional provisions, which however, continue to make differences.

Eichhorst and Marx (2012) show the different profiles of Continental European countries’ deviations from “normal” open-ended, full-time employment, and point out their respective impacts on labour cost (Table 3.3). However, despite the emphasis on different political strategies and coalitions in most of the comparative literature (cf. Wren, 2013b), these authors’ argument is chiefly cost-and productivity-based, and expects ongoing and increasing dualisation:

“since productivity for many workers cannot be improved easily and since neither low employment levels nor increased public spending are sustainable solutions, the pressure to allow for more inequality also increased in traditionally egalitarian societies” (Eichhorst and Marx, 2012, p. 75).

Table 3.5: Modes of “defection” from open-ended, full-time employment

<table>
<thead>
<tr>
<th>Paths towards labor cost (LC) reduction</th>
<th>Type of LC affected</th>
<th>Types of employment</th>
<th>Dimension of labor market divide</th>
<th>Countries using this path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defection from open-ended contracts</td>
<td>Turnover costs</td>
<td>Fixed-term contracts, agency work</td>
<td>Employment stability</td>
<td>All, FR, NL, agency work NL, DE manufacturing</td>
</tr>
<tr>
<td>Defection from full-time jobs</td>
<td>Non-wage labour costs in some countries</td>
<td>Part-time, particularly marginal</td>
<td>Social security coverage</td>
<td>NL, DE, AT</td>
</tr>
<tr>
<td>Defection from dependent employment</td>
<td>Wage, non-wage and turnover costs</td>
<td>Self-employed without employees</td>
<td>Employment stability, wages, and social security</td>
<td>BE, FR</td>
</tr>
<tr>
<td>Wage dispersion</td>
<td>Wage costs</td>
<td>All</td>
<td>Wages</td>
<td>DE, AT (in spite of collective bargaining coverage)</td>
</tr>
<tr>
<td>Government-sponsored labor cheapening</td>
<td>Wage costs</td>
<td>All, special contracts, programmes</td>
<td>Limited mobility to unsubsidized jobs</td>
<td>FR, BE, also DE (in-work benefits)</td>
</tr>
</tbody>
</table>

However, with the comparative results in mind, we can expect the impact of these pressures to remain contingent upon political choices.

Distinctions of numerical and functional flexibility have their roots in industrial divisions of labour in which companies retained a “core” of internal, functionally flexible employment for their core functions. These core functions which were buffered from the volatilities of the market by various external and secondary, numerically flexible employment relations. These distinctions are increasingly becoming more blurred. In recent years labour market researchers such as Jill Rubery (2006), Ina Krause (2013) or Birgit Apitzsch and colleagues (2015) have argued that these segments are no longer neatly distinguishable. Employers come to use the instruments of flexibility in more flexible ways, combining different workforces for similar tasks, utilising opportunities of labour market liberalisation and in effect fragmenting employment and setting segments to compete with one another rather than buffering one another.

With the diffusion of outsourcing strategies (Flecker et al., 2009b; Flecker et al., 2012), flexibility can be increased beyond the company, through inter-company relations and “buying in” other services’ capacity for flexibility (Arzbächer et al., 2002). This, at first sight, suggests more transactional relationships between companies. Nevertheless, market relationships can also vary: in the more knowledge-intensive and services their interactive and “social” character establishes durable relationships between both people and organisations that extend beyond isolated projects or transactions (Apitzsch et al., 2015, p. 79). Either way, the handling and management of flexibility becomes a service in its own right, provided by temp agencies, call centres and possibly, event management companies or consultancies.

The very recent German study by Apitzsch et al. (2015) addresses these interrelations, aiming to combine research on the distribution of atypical employment forms in different service industries and on company-level modes of utilisation of these forms of employment. On the industry and macro level they find evidence of predictable segmentation. Financial and high-tech services have proportions of “normal” full-time open-ended employment that are similar to those in manufacturing. Non-knowledge-intensive market services and also the knowledge-intensive creative industries have a higher incidence of atypical employment, and indeed, similar rates of marginal employment.

Looking at company strategies in IT, publishing and the media, the authors find that labour market segments are less clearly cut than segmentation theories would have it. Freelance work and also marginal employment are frequently used in core functions as well, to widen companies skill bases and gain access to specialised knowledge. Relations with marginal employees or freelancers are less transactional than would be expected and often consist in long-term or repeated collaborations. This is well-known for the project work of film and TV productions (Sydow and Windeler, 2004; Windeler et al., 2000), and also for IT (Schönauer et al., 2013; Holtgrewe, 2012), where collaborations with freelance professionals are often embedded in enduring networks and may also involve customer contact and central positions. In a less knowledge-intensive context, a similar pattern is found in German retail where marginally employed “minijobbers” often do skilled work with a long-term perspective in the
respective shop and provide numerical flexibility (Voss-Dahm, 2008). Even in commercial cleaning with its high labour turnover, HR managers aim for labour retention and try to access workers’ networks of friends and family to assess potential workers’ reliability, save transaction cost and create worker engagement at low cost (Holtgrewe and Hohnen, 2015; Holtgrewe and Sardadvar, 2012).

In this view, it is likely that crowdsourcing and other social-web mediated platforms (see chapter 3.3.3) then represent a new and distinct type of intermediaries that promise to combine numerical and functional flexibility, and deliver highly flexible work and services to both companies and end-customers. This probably is part of their fascination in both virtual and spatially bound contexts, but their use is likely to reiterate the challenges of coordination and control rather than overcome them through new technology.

3.2.4. Part-time work and fixed-term employment: the institutional environment (again)

In the literature, both part-time work and fixed-term employment are the most common types of atypical employment, partly because for these types of work the best data are available in common European surveys. For these employment forms, regulation in Europe has been improved in the direction of equal treatment provisions. Part-time is closely, but not mechanically associated with women’s increased participation in formal employment (Smith, 2005). It has thus been responsible for a large proportion of the employment increases since the 1990s in many European countries (Fagan and O’Reilly, 1998). A considerable part of part-time is (semi-)voluntary and supposed to improve workers’ work life balance (Eurofound, 2013), although the unequal divisions of labour between women and men that assign care and household responsibilities primarily to women can render the distinction of voluntary and involuntary part-time somewhat blurred when workers have few alternatives.5 Also, in many countries, statutory rights to part-time employment for parents or older workers have been established and extended (Fagan et al. 2014, p. 69ff.).

Still, “part-time jobs are disproportionately concentrated in the lower-paid and lower-grade occupations, in a narrow range of low-paid female-dominated service jobs and certain intermediate clerical positions” (Fagan et al., 2014, p. 4).

In these occupations, part-time becomes a mode of employer-led flexibility and serves to adapt working times closely to customer frequencies and workflows as in commercial cleaning, retail or call centre work. This effect is mitigated by the availability of childcare and by the proportion of women in the public sector which offers somewhat more favourable part-time arrangements (Leschke, 2015)

5 With this ambiguity of voluntary and involuntary part-time work, the Eurofound analyses of the EWCS have some difficulty in evaluating working time quality. The commonly used indicators aggregate duration of work with scheduling (that is, atypical work hours), discretion over working time and short-term flexibility. Still, this indicator presents short working hours as “better” Eurofound (2014); Green and Mostafa (2012); Holman et al. (2015), which is appropriate for full-time work but underreports the downsides of part-time work with regard to income and sometimes job security. This is part of the reason why working time quality is reported as one area in which job quality is improving in Europe.
In employer-driven flexibility involuntary part-time plays a considerable part: In the Working Conditions Survey, 14% of workers in the EU-28 would like to work longer hours, but in food and beverage services, arts and entertainment, administrative and “other” services the share is above 20%. Commercial cleaning and household services have striking 30 or 40% shares of involuntary part-time respectively (Eurofound, 2014, p. 23). In those countries with specific employment relationships for marginal employment or short-hours part-time, this is especially critical, as exemptions from tax or social security contributions set further incentives for employers to fragment work. Other evidence from low-wage service industries, in particular cleaning, supports the view that during the crisis, service jobs were retained through involuntary part-time or a shortening of working hours with the cost borne by workers (Holtgrewe and Sardadvar, 2012; Recio et al., 2015), whereas in manufacturing in several countries the state supported shortened working hours (Flecker et al., 2010).

3.2.5. Zero-hours and on-call work

Zero-hours contracts and on-call work represent particularly precarious and vulnerable employment contracts. These employment relationships are permanent but do not stipulate working hours or schedules in advance. Instead employers call in workers if and when they are needed, to cover other workers’ absences, peaks in demand or other contingencies. This type of work has increased in such diverse countries as Italy, Sweden, the Netherlands, Ireland and the UK according to Eurofound’s study (Mandl et al., 2015) where labour market regulations permit them. Such work is mostly used in service sectors with variable demand such as tourism or home care and also retail and entertainment. It chiefly is used for low-skilled occupations, although in the UK in 2012, 43% of zero-hours contracts were with management, professional and technical staff. Rubery et al. (2014) report that in the UK elderly care services, zero-hours contracts are used systematically

“to enable paid work in home care to be organised into short and fragmented visits. Instead of the normal organisation of jobs into continuous shifts of paid work hours, except for short unpaid rest periods, domiciliary care workers are only paid for their face-to-face care time.” (p. 1).

Other employment types of casual labour were found in Belgium, France, Hungary, Romania, Slovakia and Slovenia (for students) and cover intermittent work over limited periods of days, weeks or hours. Such contracts concentrate in agriculture, tourism and entertainment. Intervals between the request to come in and the start of the shift were found to be anything in between “one hour before the shift starts and as long as four weeks in advance” (p. 48).

“Casual work gives a high level of flexibility to employers and low levels of security to workers”, as the Eurofound report succinctly summarises (Mandl et al., 2015, p. 66). The unpredictability of working schedules and income is likely to generate stress and may combine the disadvantages of severe underemployment and intermittent very long working hours. Such jobs, especially in the UK health sector, are sometimes combined with other, more stable employment for extra income. Where workers depend on such contracts for their main
income, it appears that they are reluctant to turn assignments down for fear of not being asked the next time. Some experts see the merit of such contracts in providing access to the formal labour market for young or unemployed workers and a reduction of undeclared work, but there is clearly a risk of substitution of regular jobs. Even for employers, the very attractiveness of casual labour may have its downsides, detracting from efforts at more sustainable management practices and better work planning which in turn would allow for more stable employment and responsible autonomy of workers. The *walqing* project, while not addressing on-call work explicitly, found instances of flexible arrangements for temporary staff that could substitute for intermittent work: In a German catering company that ran school canteens, part-time workers were hired with practically an annual working time account:

“During school times, they work longer hours than those stipulated in their contracts. These extra hours are offset by the twelve weeks of school holidays when the canteens are closed. […] This mode of working is contingent upon a fairly long-term commitment of employers and workers in order to be able to handle the working time accounts. Companies need to have the necessary reserves to cover payment – and small businesses may need provisions for payment defaults. Collective agreements need to cover the respective period for averaging earnings, generally a year rather than shorter periods.”

3.2.6. **Low-wage work in the services**

After some decades in the shade of skilled industrial labour and then knowledge and creative work, from the 2000’s onwards, the lower end of the labour market in general has received some academic and public attention again. It became abundantly clear that economic growth, technological innovation, and the development of a service society or European policy strategies do not upgrade working conditions and job quality of the majority of workers automatically. The supposed knowledge society has consistently failed to get rid of “hard work”. Indeed, “skill-biased technological change” means that ICT use and knowledge intensity generate their own low-skilled, menial and tightly regimented jobs, for example in call centres or logistics. Jobs with low wages, low autonomy, physical and psychological strains, limited perspectives and insecure employment apparently do not simply persist but are newly created. As Bolton and Houlihan put it somewhat resignedly, “the jobs flowing from shifts towards services and ‘new’ forms of work are proving just as gruelling, monotonous, tightly controlled and poorly rewarded” (Bolton and Houlihan, 2009b), p. 4) as previous jobs at the low end of the hierarchy.

The rediscovery of low-wage work in the 2000’s had multiple roots. A part originated in the US and the English-speaking countries that experienced the most market-driven polarisation (Bolton and Houlihan, 2009a; Warhurst et al., 2012). The US-based Russell Sage Foundation in particular initiated research into the low-wage sector (Appelbaum et al., 2003; Appelbaum et al., 2005), and some journalistic accounts also provide insight (Ehrenreich, 2001; Toynbee, 2003; Wallraff, 2014). The EU-funded NESY project (Bosch and Lehndorff, 2005b; Mermet and

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Lehndorff, 2001) also investigated lower-skilled service sectors such as retail and elderly home care – taking care to point out to what extent the logics of these sectors interacted with each country’s institutional environment. With some overlap of research institutions and researchers (such as the German “Institut Arbeit und Technik” or the Danish National Working Life Research Centre), the Russell Sage Foundation then extended its work to include some coordinated European economies in the “Low-Wage Work in Europe” project (Gautié and Schmitt, 2010). Studies focused on low-wage occupations such as call centre work (partly), hospital cleaners and nursing assistants, hotel room attendants and retail salespeople. The “Global Call Centre Industry Project” conducted a survey of 2,500 call centres in 17 countries that covered the quality of work and employment comparatively (Batt et al., 2009a; Batt et al., 2009b). The EU-FP7-funded project walqing, again with some overlap of researchers built on that work and other European studies of restructuring, and combined a macro-level, data-driven identification of expanding sectors with poor quality of work with a multi-level investigation of the critical sectors and operative functions of elderly care, cleaning, catering and waste management (and construction) (www.walqing.eu, Kirov, 2013a and Holtgrewe et al., 2015a). Finally, Eurofound’s investigation of “occupations with multiple disadvantages” identifies occupations in which aspects of poor job quality accumulate (such as low wages and salaries, low job security, long or unsocial working hours, stressful, physically and psychosocially demanding work, poor social relations and lack of perspective) that impact workers’ health, quality of life and prospects to stay in work. Such occupations in the service sectors include operative hospitality workers, sales workers, drivers, food preparation assistants and refuse workers (Durán López et al., 2015). Other groups that appear to be multiply disadvantaged in many European countries are hairdressers and beauticians, personal care workers, child and elderly care workers and assistants, protective services workers, bus and truck drivers and workers in transport and storage. Domestic services, also expanding in Europe, may also be included (see chapter 3.4.3).

Looking at sectors and occupations simultaneously, a fairly consistent cluster of disadvantaged jobs in the service sector emerges: **operative workers in less knowledge-intensive personal services** (both private sector and more or less public-sector ones) and also at the **low end of business and commercial services** (such as cleaning workers, workers in logistics and security, or, partly, call centres). Obviously, in these sectors not all workers fall into the categories of low-wage work (in a strict sense of 2/3rds of the median income) or low-skills (as there is evidence of some overqualification and misrecognition of skills, for example of migrants’ qualifications). It has been argued that indeed, care work can meaningfully be considered as knowledge work (Nishikawa and Tanaka, 2006), and indeed, analysing job adverts for supposedly low-skilled jobs Beblavý and Veselková (2014) find that in many of those, employers require considerable social and communicative skills even for menial positions.

The literature on low-wage work agrees that these jobs and sectors are characterised by comparatively low wages, physically hard work, low and misrecognised skills and patchy to low interest representation. Additionally, they are structured by strong gender and ethnic segmentation, both between and within sectors. Through this accumulation of disadvantages, they reiterate social vulnerability for workers, for instance through health risks or...
discontinuous employment (Hohnen et al., 2015; Hohnen, 2012). Precarious employment is found to be gendered (cf. Smith, 2005). The sectors that are women-dominated (elderly care, commercial cleaning, catering) tend to cover work peaks through part-time work and fragmented contracts (Recio et al., 2015; Holtgrewe and Sardadvar, 2012). Here, companies offer increasingly shorter hours and lower incomes. Male-dominated sectors mostly retain full-time employment but extend working hours and render employment more insecure and discontinuous. For the men and women in operative jobs in these sectors – who generally have limited labour market alternatives and often have entered the sector in their middle age after discontinuous employment histories – employment continuity, regular payment of wages, work close to home and a good working climate often represent achievements already (Hohnen et al., 2015). Sometimes careers from the operative level to skilled or lower management positions are possible but hierarchies in these sectors are mostly flat, demands in management are high and incentives to advance are limited.

Low-wage workers face similar pressures on the quality of their jobs. For services, and outsourced services in particular, the walqing project emphasised the role of clients, both institutions and private end-customers in many areas, in the shaping of working conditions by negotiating contracts, making ad-hoc demands and exerting control. In particular, public sector privatisation and outsourcing have contributed to the expansion of the sectors investigated. This entails that cost pressure and quality considerations by both clients and employers have a central impact on working conditions. In recent years, this cost pressure was exacerbated in the context of the economic crisis. Both public and private sector organisations now set a strong focus on cutting costs, and this is reflected in adverse outcomes for employment conditions and quality of work, such as work intensification and a fragmentation of employment.

However, research also agrees that it is possible to shape “hard work” in problematic sectors in a favourable way and good practices are observable in Europe. Inclusive employment regimes and welfare state provisions (Gautié et al., 2010), a functioning social partnership and worker voice (Kirov, 2015) can provide “institutional anchors for job quality” (Grimshaw and Lehndorff, 2010; Jaehrling and Lehndorff, 2012). Similarly, Gadrey (2005) argues in this institutionalist vein that “a society has the markets it creates for itself” (p. 351) and that societies need to develop agreements to “share quality gains” in a way similar to the sharing of productivity gains under Fordist conditions. Unsurprisingly, the Nordic countries provide evidence for the most favourable and inclusive working conditions and initiatives at professionalization of low-wage work (Westergaard-Nielsen, 2007; Holtgrewe and Sardadvar, 2012; Ravn et al., 2012). For example, they provide training and skill upgrading, supported by wage incentives, and also more favourable working hours for cleaners, elderly care workers and waste collectors. The comparison and also attempts at intervention have led Vassil Kirov to ask the question:

“However, the big question is how to inspire other regions in Europe with these practices. The institutional transfers from West to East or from North to South have been often failures. How social sciences could address this change” (Kirov, 2013b, p. 22).
We shall see in chapter 4.6 that smart organisational solutions and management strategies can render workflows more continuous, employment more secure and contribute to service innovations. New technology can lessen health and safety hazards. Inclusive and collaborative working cultures and corporate social responsibility also contribute to good job quality.

3.3. **Future employment perspectives**

With regard to employment forecasts, for the purpose of conceptual clarity we distinguish the prognoses that forecast the development of employment on the basis of previous developments (chapter 3.3.1) from those that emphasise technologically driven disruption (chapter 3.3.2). While the continuity-oriented forecasts by CEDEFOP and some European projects directly inform labour market and employment creation policies, analyses that forecast more or less massive technology-driven disruptions have recently gained influence in policy and stakeholder debates. Both perspectives take the notion of skill-biased technological change on board (Autor and Dorn, 2013; Autor et al., 2003; Goos et al., 2009; Antón et al., 2012; Fernández-Macías and Hurley, 2014). They also agree in considering globalisation, intensified competition and also increased specialisation in many industries. CEDEFOP (2013a) summarise the general consensus in a somewhat obvious way:

“Between now and 2025, increasingly the jobs available at all skill levels will be those not easily replaced by technology, organisational change, or outsourcing. They will be jobs requiring people to think, communicate, organise and decide” (p. 2).

The continuity-oriented line of reasoning also considers other drivers of changes in employment: demographic and social changes that affect both the labour supply (such as the ageing of European societies or migration) and the demand for services (for example, services for the aged, or for private households). In particular, changes in gender roles and regimes are expected to continue increasing women’s participation in paid work and the demand for services that support that participation.

Considering changing labour markets, it is worth keeping the fundamental mechanisms of capitalism in mind. Ursula Huws (2014), arguing in a globalised labour process paradigm, points out the systemic and inherent contradictions of standardisation and commodification versus innovation that also have an impact on labour markets. Capitalist companies, on the one hand, compete to standardise, simplify and de-skill work. On the other hand, they require new and higher-skilled groups of workers both to create the innovations that sustain economic growth and to manage the increasingly distributed, modularised and technology-intensive labour processes.

“In order to routinize the jobs of one group of workers, another generally smaller group with some sort of overview of the process is necessary. As workers resist or adapt to change and organize to protect their interests, new occupations are continuously being formed and older ones re-formed. […] Employers have to balance their interest in cheapening the value of labour with their need to ensure that there is a renewable supply of well-educated and creative workers with fresh new ideas.” (Huws, 2014, p. 30f.)
The question which type of work is which, which can be rationalised or automated and who gets to do the rationalising and automating is thus crucial for estimating the number and quality of future jobs – and considering that services also deal with the uncertainties that other sectors externalise, it is no surprise that uncertainties remain.

### 3.3.1. Labour market forecasts emphasising continuity

In labour market forecasts, there are wide areas of consensus and we find some shifts in emphasis in recent years. All studies agree that the service sector is going to expand further, and Begg et al. (2010) conclude that

“A key implication of this shift is that future employment policy has to treat service sector jobs as the likely principal source of employment creation and consider what it is that encourages or inhibits the creation of such jobs.” (p. 3).

They also agree that overall both workforces and jobs are becoming higher-skilled. Workforces will be older on average, with young people entering the labour market later and better educated, and older workers more likely to stay longer (cf. Beblavý et al., 2014). There will be more women with also higher skills in the workforce. In 2025, CEDEFOP (2013a) expect the EU to have at worst (in the case of ongoing stagnation) 235 million jobs, at best, 245.5 million jobs.

**Figure 3.4: Sectoral employment shares, 2000-25 – baseline scenario (EU-27+), %**

![Graph showing sectoral employment shares from 2000 to 2025](image)

**Source:** CEDEFOP, 2013a, p. 3

In its 2012 report, CEDEFOP expected ongoing expansion in business and “other” services and to a lesser extent, in distribution and transport, whereas for the non-market services the expectations are limited due to austerity and cost-cutting in the public sector. Financial services are also expected not to continue their expansion in the wake of the crisis. Beblavý et
al. (2014) in the European NEUJOBS project co-ordinated by CEPS pursue two scenarios that are distinguished by “friendly” or “tough” developments in demography, energy prices and financial conditions and take the socio-ecological transition into account. In the “friendly” scenario, they expect private services to create 8 million jobs in between 2010 and 2020 and another 7 million from 2020 to 2030 (p. 48). On its own, service employment would compensate job losses in industry and agriculture, with construction expected to account for another 3.9 million new jobs in between 2010 and 2030. In the “tough” scenario, private sector services will grow by 3.5 million jobs, whereas the non-market sector is expected to lose some 3.1 million jobs. Construction would be expected to contribute 3 million new jobs, industry is likely to lose 5.7 million jobs. In the “friendly scenario”, “green” renovation is expected to create a large part of the growth in construction, and “culture, recreation and communication” will expand in the services as standards of living rise.

In terms of occupations, the CEDEFOP experts expect a polarised development, with the highest demand from both expansion and replacement of retiring workers among “other associate professionals” followed by sales and elementary occupations and personal and protective service workers (CEDEFOP, 2012). Decline is expected in administrative and clerical jobs where automation (and possibly, offshoring) is gaining ground. Nevertheless, medium-skilled jobs are still expected to – barely – represent the majority of jobs in 2025 (CEDEFOP 2013a).

**Table 3.6: Top five occupations most in demand up to 2020, EU-27+**

<table>
<thead>
<tr>
<th>ISCO occupation</th>
<th>Expansion demand</th>
<th>Replacement demand</th>
<th>Total job opportunities</th>
<th>Share of qualification (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>34 Other associate professionals</td>
<td>2.9</td>
<td>5.8</td>
<td>8.7</td>
<td>44.9</td>
</tr>
<tr>
<td>91 Sales and services elementary occupations</td>
<td>1.0</td>
<td>6.2</td>
<td>7.2</td>
<td>11.1</td>
</tr>
<tr>
<td>51 Personal and protective services workers</td>
<td>0.5</td>
<td>5.6</td>
<td>6.1</td>
<td>17.9</td>
</tr>
<tr>
<td>24 Other professionals</td>
<td>2.0</td>
<td>4.0</td>
<td>6.0</td>
<td>77.8</td>
</tr>
<tr>
<td>12 Corporate managers</td>
<td>1.0</td>
<td>4.1</td>
<td>5.1</td>
<td>62.2</td>
</tr>
</tbody>
</table>

Source: CEDEFOP, 2012, p. 30

However, CEDEFOP and also Beblavý et al. (2014) expect tensions between skill demand and supply. Skill shortages are a possibility and are expected in the less knowledge-intensive sales, services and elementary occupations (p. 52), especially in those countries that have highly-skilled workforces already.

“Despite the trend towards more skill-intensive and demanding jobs, high unemployment and weak employment demand may increase numbers of people overqualified for the jobs available. Where overqualification lasts it can reduce productivity. People become
demotivated. Their unused or undeveloped skills become obsolete. People losing jobs in a recession can become long-term unemployed precisely because their skills and work attitudes deteriorate. The signs are that young people will continue to find it harder to find a job, particularly in some European countries, despite being fewer and better qualified. Job prospects for the low skilled are likely to get worse.” (CEDEFOP, 2013a, p. 4)

As skills in the working population at large increase, the lower-skilled are likely to be crowded out by the abundance of people with higher skills. Yet, overqualification is a somewhat vague term, and “routine” may not always equal “routine”. With the uncertainties of customer contact that many service jobs entail, even in menial occupations such as sales or call centre work workers can often use all the social and interactive skills and intelligence they can muster. Employers who complain about labour shortages (but may be reluctant to pay higher wages when the labour market develops in favour of employees) address that very problem of finding the “right” employees even for work that is supposedly unskilled. The recognition and remuneration of skill then has less to do with actual demands of the job than with the respective workers’ power in the market and in negotiation. This was first found for women’s occupations (Rabe-Kleberg, 1987; Dwyer, 2013) and also for call centres where surveys revealed surprising shares of workers with medium to high education or, in Germany, vocational training (Batt et al., 2006; Holtgrewe et al., 2005; Batt et al., 2009b). CEDEFOP also see some ambiguity here:

“Better qualified people have a better chance of keeping a job and, once in employment, they may be more innovative and change the nature of the job they are doing. Highly-skilled people may also find it easier to transfer skills gained in one sector to a job in another.” (CEDEFOP, 2012, p. 13;).

Possibly, “it may be beneficial for the economy if employers can recruit better-qualified people for jobs that have not traditionally required such high skill levels. In the longer term, supply may create its own demand as availability of higher-level skills may encourage skill-biased technological change and contribute to innovation” (p. 56).

This is an argument of “job crafting” that relates to workers’ own part in work organisation. It assumes that workers are able to use the spaces in work organisation to shape work tasks in their favour (Wrzesniewski and Dutton, 2001) and increase productivity in the process. However, such a mechanism would require “overqualified” workers in menial jobs to exert voice and commitment to improve their jobs rather than quitting when alternative options come up. Certainly, such positive dynamics will be enhanced if employers utilise their workforces’ skills in empowering ways, allow for responsible autonomy, and upgrade and support these efforts through high-performance work systems and workplace innovation. Adequate pay and recognition of upgraded operative jobs will also help to retain workforces and their creative potential. At this point developments in labour markets and in work organisation (see chapter 5) touch upon one another – but the suggestion that skilled and “overqualified” workers will have enough space to improve their situation in less demanding jobs appears optimistic.
Nevertheless, increasingly and importantly, skill upgrading by itself will be necessary but not sufficient. It will need to be connected to innovative work organisation, leading the CEDEFOP authors to conclude that

“Europe needs to invest in high skill-high productivity jobs rather than regress to cost-cutting low productivity strategies (as tends to happen today due to the crisis)” (CEDEFOP, 2012, p. 15).

However, considering that skills and their recognition and remuneration are not necessarily the same, it appears that the incoming, higher-skilled and more female cohorts are likely to find they will not receive the same job quality, pay and perspectives as previous ones. When workers are shifted into lower-skilled occupations, redesigning these jobs to make better use of their skills and become more productive may either become an area for collaboration and consensus-building with employers or a struggle against regimentation and ineffective processes and controls that in turn, erode that potential.

3.3.2. Disruptive possibilities

A more recent genre of labour market prognoses sees considerably more disruptive developments ahead (Brynjolfsson and McAfee, 2011, 2014; Frey and Osborne, 2013). The current discussion on technology and changes in employment that both address services and manufacturing is somewhat dominated by the study by Oxford University's Frey and Osborne on computerisation (Frey and Osborne, 2013) and other technology- and innovation driven prognoses. These authors famously consider some 47% of US jobs as susceptible to computerisation or “at risk”. Their methodology has also been applied to European countries with even higher predictions in between 46.7% of jobs in Sweden and 61.9% in Romania. Germany is estimated at 51.1%, Spain 55.2% and Poland at 56.3% (Bowles, 2014; Brzeski and Burk, 2015). In this analysis, there is a considerable gradient between the share of job at risk in the North/West and the South/East of Europe that is due to the higher proportion of routine jobs – which, however, may not easily translate into likely automation. The question remains how South/East European companies will raise the capital to massively automate their higher shares of lower-skilled and lower-wage jobs.

Frey and Osborne draw on the literature on employment polarisation and skill-biased technological change and also on the recent literature about the increasing capabilities of advanced computing, in particular, machine learning, semantic systems, sensor technology and robotics. Admittedly they aim “from a technological capabilities point of view, to determine which problems engineers need to solve for specific occupations to be automated” (p.4). The authors give skill-biased technological change a somewhat new twist. In line with Autor et al. (2003) they distinguish routine and non-routine tasks and manual and cognitive ones. Whereas traditional automation and computerisation has been confined to manual and routine tasks, Frey and Osborne argue that current information technology is quite capable of turning even non-routine tasks (such as handwriting recognition or medical diagnostics) that used to defy automation into “well-defined problems” that are amenable to automation as the capabilities...
the argument for services:

“tasks underlying services can be transformed into formal, codifiable processes with
clearly defined rules for their execution. When activities are formalized and codified, they
become computable. Processes with clearly defined rules for their execution can be
unbundled, recombined, and automated. The inexorable rise in computational power and
the development of sensor technology means that computable algorithms can express an
ever-greater range of activities” (p. 6).

Technologies that play a part here are robotics, sensors and the enhancement of objects such
as transport containers, machines and machine parts or even end-products with information
and communication technologies in an “Internet of Things”, and, on the software side,
technologies from artificial intelligence areas such as natural-language processing, pattern
recognition or machine learning (Holtgrewe, 2014). With the use of smart objects, production
and logistics processes are expected to co-ordinate themselves with less human intervention.
“Big data” applications are expected to discover patterns of activities through combining
various data sources and using sophisticated statistical and network for conclusions about the
future behaviour of individuals and groups or of machines, from people’s buying decisions to
the risks of machine breakdowns, diseases or accidents to illegal behaviour (Mayer-
Schönberger and Cukier, 2013). Such technology is not entirely new but departs from
traditional market research, epidemiology, actuarial theory or intelligence gathering –
disciplines that have contributed to the standardisation and target-setting of customer service
work in financial services or tele-mediated health services for decades. Notably, “big data”
alyses often draw on large amounts of digitalised previous human efforts as in machine
translations that find the best matches from large bodies of human-translated texts. In the
more ambitious “big data” visions, this extends well into the professions of medicine, law or
education.

While challenging previous assumptions about human versus machine capabilities, Frey and
Osborne argue that capacities for automation are still limited by ‘engineering bottlenecks’ that
the authors have identified through a workshop held with engineering experts (p.24). They
spot such bottlenecks, that is, current limits to automation, in the areas of perception and
manipulation (especially in unstructured environments) and of creative intelligence from
scientific theorising to arts and cooking. Apparently the key challenge of creativity is not to
generate variation or newness in a style or genre but “arriving at combinations that ‘make
sense’” (26). This aspect is less inherent in a creative product than in its context and the
meaning ascribed to it by its social environment. The third, related, bottleneck is social
intelligence.
Figure 3.5: A sketch of how the probability of computerisation might vary as a function of bottleneck variables

Frey and Osborne then map some 702 occupations according to their features and tasks, based on the US Department of Labor’s O*NET Database that defines the key features of occupations in the “Standard Occupational Classification”. This procedure is inspired by the literature on the offshoreability of information-based tasks and occupations. Again, a considerable amount of hand-labelling and (engineering) expert judgement were used in combination with indicators used in the O*NET database. The result is the famous graph that can also be read right-to-left as a timeline in which the occupations with high probability of automation are likely to be automated sooner (p. 38).

Frey and Osborne see the most “at risk” occupations in the near future in transport and logistics, office and administrative support, and production. Services, sales and construction may also be substituted by robots, prefabrication technologies and self-service “interactions”. Jobs involving tasks and subjects of “‘fine arts’, ‘originality’, ‘negotiation’, ‘persuasion’, ‘social perceptiveness’, and ‘assisting and caring for others’” (40) such as managers, creative industries, health and education are deemed low-risk – echoing the old Daniel Bell (1973) notions of a service society that meliorates and humanises work at large into a “game between persons”. The authors argue that indeed, previous patterns of technology-driven changes in employment are discontinued. Polarisation and the “hollowing out” of mid-level occupations in the early industrialised countries is likely to be replaced by automation of the low-level service and production jobs of which some have expanded only recently. The question is whether workers will be fast enough in acquiring the creative and social skills that are likely to be somewhat immune to automation in the near future.

The study is thus consciously technology-biased and ahistorical, and with these limitations, the actual figures (also in the applications to other countries) should certainly be taken with more than a grain of salt. However, it draws attention to those possible technology-induced changes that are obscured by recent and current developments.
While in this sense, the approach is productive and challenging, there are some objections: Automation and technology use in real life are generally contingent on economic and strategic decisions in companies rather than technological possibilities, and also on the needs for coordination and collaboration in value chains across company boundaries. Technological and social Interfaces and standards and alignment with legal and institutional requirements are also likely to further shape technologies and their uses. A pointed critique of the automation paradigm is provided by German industrial sociologists Sabine Pfeiffer and Anne Suphan (2015b). These authors, in line with a phenomenological and somewhat pragmatist tradition in German industrial sociology (but see also Suchman, 1987; Orlikowski, 2000) that has addressed both manufacturing and services (Böhle, 2006; Böhle et al., 2015; Bauer et al., 2006), take issue with the equation of routine and automation that plays such a large part in the literature on skill-biased technological change. They think of routine as an experience-based ongoing improvisation under conditions of (increasing) uncertainty, that is, the very opposite of automation. Experience and actually, work in this view is a dynamic resource rather than a
residual of “engineering bottlenecks”, and is likely to remain so. This is a contrary view to that of technology-driven approaches that notoriously tend to underestimate the ongoing adaptations and improvisations that are required even and especially in technology-intensive work environments. Indeed, standardisation and digitisation of work is likely to create new needs for interpretation and adaptation (Pfeiffer and Suphan, 2015b), as value creation processes are becoming more complex, value chains are lengthening and collaboration across organisational and spatial boundaries increases.

3.3.3. Crowdsourcing

As currently already, services are characterised by increasing shares of precarious employment, this development may also be enhanced by uses of new technology, and this paper suggests that the “very new” forms of employment such as “crowdsourcing” need to be viewed in the context of existing flexible employment contracts and self-employment (Holtgrewe and Prammer, 2013). Crowdsourcing has attracted considerable interest in recent years, and only now, the picture is gaining contours (Barnes et al., 2015; Felstiner, 2011; IG Metall-Vorstand, 2013; Lehdonvirta and Ernkvist, 2011; Leimeister and Zogaj, 2013; Lehdonvirta et al., 2014). Crowdsourcing represents a „type of internet-enabled labour exchange” (Barnes et al., 2015, p. 17) where tenders for pieces of work are invited through an online platform from the “crowd”, a talent pool of potential workers with profiles, credentials and work samples. It takes different shapes that range from tendering for professional services with varied contractual arrangements to the virtual distribution of Taylorised microtasks. Here, we distinguish the crowdsourcing of immaterial services that can be delivered online (“virtual crowdwork”) from the platforms that broker the real-world spatially-bound services of transport, hospitality or craftspeople.

Generally, services can be delivered remotely if they are immaterial and do not require immediate face-to-face interaction such as “software/product development; design; writing and editorial services; web development and design; plus smaller jobs such as image tagging and hyperlink checking” (Barnes et al., 2015, p. 18). They can be organised as virtual crowdwork if they can be subdivided into tasks that do not require face-to-face co-ordination among workers either. This covers a range from genuinely creative work to small and detailed “microtasks”. Indeed, the small jobs that Amazon’s Mechanical Turk is known for can be classic Taylorised work that fills gaps in automation, such as image recognition, labelling or tagging, or the manual checking of database entries. Leimeister and Zogaj (2013) map crowdsourcing on classic business functions, and see their uses in finance, R&D or design (including open innovation platforms), production (of immaterial goods such as software or content), and marketing, up to the outsourcing of entire advertising campaigns to crowds (p. 10). Platforms that act as intermediaries for local services such as cleaning, repairs, transport or hospitality are a different type (see below). On a crowdsourcing platform, the types of tenders vary: partly, employers offer actual contracts for work, and partly platforms run competitions in which workers submit solutions or creative products and only the winner gets paid, or, alternatively, potential workers submit proposals of how they are planning to do the work.
While we are focusing on the crowdsourcing of paid work, other examples have roots in marketing and innovation and – inspired by open source development models and pop culture – invite suggestions for innovations or design features from consumer communities. Kleemann et al. (2008) regard this model as a new, technology-based instance of putting customers to (unpaid) work or involving them in co-production, feeding elements of service into the design and development of products.

The example of IBM’s “Liquid” programme from 2010 onwards has received considerable attention (IG Metall-Vorstand, 2013; Kawalec and Menz, 2013). The company proposed to cut some 8,000 jobs in Germany in 2012 and in the longer run, to reduce its global employment from 430,000 people to 100,000 in 2017. The “Liquid” programme, a part of the comprehensive restructuring programme “Generation Open”, contains both an internal and external crowdsourcing platform with globally standardised databases for skills and performance appraisals, project descriptions, project management tools and accounting standards. With this and the tools of virtual collaboration, project teams can be put together regardless of location. Apparently, in Liquid work is assigned through competitions in which work packages are offered and only the best result is paid. 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). Kawalec and Menz (2013) provide an instructive exploration of the programme’s initial implementation in Germany and several possible scenarios. Apparently, among German works councillors and workers it meets with some reluctance. Meanwhile, IBM obliges project managers to contract a certain proportion of work through the platform, which suggests that cost and efficiency benefits are not immediately evident to them. However, the authors do not see the scenario of comprehensive liquidisation of employment as the most likely. It is possible that IBM limits external outsourcing 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 will likely require increased management effort and considerable transaction cost (cf. Holtgrewe, 2014). This would suggest a massive polarisation between highly-skilled management and organisational tasks (possibly through intermediaries) and standardised, operative crowdsourced programming and development. However, with increasingly complex software products and the provision of systemic, servitised “solutions” to clients, this amount of standardisation may not be possible or manageable.

It appears that currently, crowdsourcing does not just substitute or downgrade regular employment but in itself it differentiates into a value chain extending across various types of firms and business models. Lehdonvirta and Ernkvist (2011) distinguish “transformers” of work and “aggregators” as intermediaries between a client and a worker or contractor. Transformers specialise in breaking down clients’ problems into specified tasks that can be crowdsourced. Aggregators provide the actual workforce and run the platform. Parts of these functions may also be taken over by established business process outsourcing companies that put their own workers on microtasks if other work is not available (ibid.).
In spite of the potentially global reach of some platforms, especially those operated by or in collaboration with multinationals, the literature shows that there is a wider range of platforms with varying specialisms. Barnes et al. (2013) report for Elance:

“Companies from the US, Australia, the United Kingdom, Canada and UAE have used Elance to hire online workers, but China, South Africa and India have the highest growth rates. Elance workers are mainly located in the US, India, Pakistan, Ukraine and the United Kingdom.” (p. 21)

While Elance and similar platforms represent a potentially global type of crowdwork, Lehdonvirta et al. (2015), in another analysis of data of the Elance platform, find that work is distributed less globally than it would seem possible: Crowdworkers receive more and better-paid work within a country context than internationally, and indeed face a “liability of foreignness”. We may conclude that, like in other services that are potentially tradable (see chapter 2), proximity, a common language and institutional background continue to shape collaborations and networks. Indeed, Mandl et al. (2015) have found a group of national platforms in Europe that were only recently established such as Danish Boblr and Portuguese Idea Hunting (established 2010), Spanish Adtriboo.com and Latvian Academy of Ideas (2011), Czech Topdesigner.cz and UK Taskhub.co.uk (2012) or Lithuanian Lingjob in 2013. Adtriboo.com, one of ca. 28 platforms in Spain, has some 135,000 professionals on file from both Spain and Latin America (p. 111). Platforms themselves are comparatively tiny organisations: Adtriboo.com has six staff and a president, German Clickworker, established in 2004, has 26 employees. In Southern Europe especially, there has been some expansion, due to the crisis and the resulting increases in youth unemployment. There appears to be a market for national language crowdsourcing, and we may assume that in a national context, both employers and workers can more easily complement the information gathered from online profiles with some knowledge of the field, of the meaning of skills and work experiences.

Crowdworkers in Europe as elsewhere often are young graduates of tertiary education. Apparently, in Europe they regard crowdworking as more of a learning experience and opportunity to increase their employability than an equivalent of a “normal” job (Barnes et al., 2015; Mandl et al., 2015). Microtasks are performed by a more diverse workforce of students, the unemployed or people on parental leave, report Mandl et al., but are also done for “extra income” rather than a living wage which may not be easy to come by. In lower-wage countries, workers are more likely to work full-time on crowdsourced tasks (Bergvall-Kåreborn and Howcroft, 2013). It is thus possible that crowdsourcing in Europe so far has much in common
with transitory labour markets such as internships in preparation for “real” jobs. Yet with current rates of youth unemployment it is quite possible that crowdsourcing erodes labour standards in sectors that are attractive to the young, and that it expands further as companies are gaining experience in modularising work and coordinating distributed pieces and efforts of work. This would be a similar development to that observed in the outsourcing and offshoring of services (see chapter 5.2).

Apparantly, there are some examples of crowdsourcing that leave the sphere of “free” labour in different ways and appear to return to the business models of 19th century truck systems:⁷ Mechanical Turk pays workers outside the US and India in gift certificates for Amazon, and companies from the computer gaming industry that specialise in handling conversion and payments in virtual currency also offer virtual currency in return for microtasks. In this way, game enthusiasts can spend their wages directly in the gaming world. Txteagle, a specialist for directing microtasks into remote areas and developing countries modularises tasks in such a way that they can be completed on mobile phones and pays workers with airtime minutes for their mobile provider (Lehdonvirta and Ernkvist, 2011). Such systems increase workers’ dependency on service providers as employers, and of course may erode countries’ tax base further than “simple” bogus self-employment. Kawalec and Menz (2013) also see the possibility that for modularised tasks, platforms may access workers in developing or instable countries or remote regions to which companies would be reluctant to offshore work. High-wage countries are likely to compete with the established offshoring destinations for coordination and management functions.

In the higher-skilled segments of the labour market, Brynjolfsson and MacAfee (2014) point out the employment risks of a wider diffusion of “winner-take-all” markets and “superstar” systems beyond actual crowdsourcing. As digital information and platforms become more widespread and increasingly arbitrate qualification, performance appraisal and reputations, recruitment may be further digitised than it is already.

“This can amplify a trickle of skill-biased technical change into a torrent of stardom for a lucky few” (p. 156).

A recent and striking example is Amazon’s rigorously data-driven continuous performance appraisal of management staff.⁸ This has implications for vocational training and qualification systems in which in many countries, unions and social partnerships have stakes. Established selection criteria such as degrees, certificates or grades can be enhanced by digital ranking of appraisals, endorsements or other digital reputation indicators. This is the more likely in internationalised or virtualised labour markets where actors have less immediate or contextual knowledge of one another to interpret qualifications or other labour market signals. It may favour younger well-connected workers with practice in online self-presentation. While vocational training institutions together with labour market services and social partners are working on the formalisation of qualifications on national and European levels, companies or

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⁷ https://en.wikipedia.org/wiki/Truck_system
specialised HR service providers may invent their own platforms and signals with little influence by labour or politics and possibly, unclear and unintended consequences.

A different emerging segment are web-based intermediaries for **space-bound and local services**. Global companies Uber or Airbnb are the most notorious examples, but there are national ones as well. So far, research mostly discusses business models and recently, their institutional functions (Lehdonvirta, 2015) but there is some evidence on their implications for actual work and job quality as well. Basically, these platforms arbitrate services by independent contractors to private end-customers, and some of them also develop the technologies to do this. Transport provider Uber is interesting in that it harnesses its demand data to feed into a “dynamic pricing model” that increases prices in periods of high demand and lowers them otherwise. All cost and liabilities of driving are borne by drivers. Since its inception, in US cities, taxi drivers report 30-50% income reductions (Isaac, 2014).

Philipp Lorig (2015) has conducted an interesting study of the German trade platform myhammer.de and also investigates workers’ experience. Myhammer.de was established in 2005, brokers tradespeople’s services and is also active in Austria and the UK. Every month, some 50,000 new contracts are posted, and 290,000 tradespeople are registered on the platform. Like US-American Taskrabbit (Isaac, 2015), the company shifted its model from reverse auctions to direct hires. Clients can either search for contractors or post contracts on the website for which potential contractors bid. Contractors describe the process as clearly asymmetrical as clients but not contractors can see and compare bids. This implements a price race to the bottom as contractors anticipate lower bids by others without having real information and set their prices accordingly. However, they are quite aware that they are ruining regular firms and employment relations. Procurement is centrally structured through digital reputation: Contractors post their qualifications and descriptions of projects, but are essentially dependent on customer ratings. For fear of a bad rating, on top of working cheaply, they tend to semi-voluntarily offer extra work and make concessions to customers. While other authors also report freelancers’ appreciation of autonomy and self-determination (Barnes et al., 2015), Lorig sees pure commodification and powerlessness. Nevertheless, these authors agree that the digitally self-employed, regardless of their skill levels, need new and extra skills of self-marketing, presentation, self-management and customer focus.

With regard to the role of crowdsourcing platforms in society, Lehdonvirta argues that possibly, platforms come to replace state institutions in creating and enforcing rules for transactions and work. As for-profits that are interested in strong growth they certainly put customers’ interests first and redistribute information and negotiating power in their favour. This does not just weaken workers’ position but also neglects externalities of this mode of doing business. Lehdonvirta writes,

"Local governments consequently try to strike a balance between the conflicting interests of hoteliers and their neighbours, by limiting hotel business to certain zones. In contrast, Airbnb as a for-profit business must cater to the interests of its customers, the would-be
hoteliers and their guests. It has no mechanism, and more importantly, no mandate, to address on an equal footing the interests of third parties like customers’ neighbours”.

On the other hand, governments and state institutions tend to favour the interests of incumbent organisations and groups over those of newcomers, giving “disruptive” actors the opportunity to both enlist and exploit outsiders for their business models.

However, platforms could be designed and developed with a wider variety of interests involved. Trevor Scholz (2014) argues that platforms do not have to be capitalist businesses either:

“Why do its owners and investors have to be the main benefactors of such platform-based labor brokerage? Developers, in collaboration with local, worker-owner cooperatives could design such a self-contained program for mobile phones. Despite its meteoric rise, $300 million in VC [= venture capital, UH] -backing (and its $18 billion evaluation bubble), as well as massive international reach, there is nothing inevitable about Uber’s long-term success. There’s no magic when it comes to developing such a piece of software; it’s not rocket science. ... There isn’t just one, inevitable future of work. Let us apply the power of our technological imagination to practice forms of cooperation and collaboration. Worker-owned cooperatives could design their own apps-based platforms, fostering truly peer-to-peer ways of providing services and things, and speak truth to the new platform capitalists.”

In this vein, trade unions could reinvigorate the traditions of labour cooperatives and union-run hiring halls of the 19th century and gain some control over the labour market. Other social movements, initiatives and social entrepreneurs might update the “alternative” cooperative businesses of the 1980s. Municipalities, regions, NGOs or specialist service delivery networks around issues such as health or sustainability could also be involved in harnessing information technology to local or regional purposes. As multinational and disruptive companies borrow the rhetoric of “communities” and “crowds” that suggests participation and empowerment, other actors might borrow the rhetoric of innovation and choice. One point in favour of more democratic and socially innovative visions of platforms is the discovery that there appears to be a space for national and national-language-based platforms although the multinational and potentially global ones gain the most attention.

Other issues address regulation. Well beyond the protectionist instincts of incumbent service providers and some local authorities, requirements of fairness and transparency of conditions, market information, and assurance of payment to both customers and workers on the platform could be politically viable intermediate aims for unions. Since campaigns aimed at manufacturing (for example the “clean clothes” campaign or various “green” initiatives) show that European consumers and citizens can be persuaded of the importance of decency and fairness to workers, and service providers appear to be more sensitive to their reputations the more nationally and institutionally embedded they are (see chapter 1.6.2), there might be space for multi-tiered interventions into the provision of virtually mediated services.

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3.4. Employment creation in different service industries

The Commission appears to have taken the consensus on the central role of the service sector in the economy and in labour creation on board – but there is little evidence that it aims to address the imbalance between service growth, productivity and employment capacities of various segments of the service sector. Looking at the present development of service sector employment, we have seen that the more “sheltered” and less market-driven services have made considerable contributions to employment growth, and indeed, will continue to do so. Indeed, apart from ICT, the Commission in the 2012 “Employment Package” and the Communication “Towards a job-rich recovery” (COM (2012) 173) looked into “green jobs”, jobs in health and social care and also in household services. In effect, this mirrors the challenges that are considered to drive employment change apart from ICT and globalisation:

- the socio-ecological transition,
- demographic change,
- and changes in gender relations and divisions of labour that move work outside households ad families.

In “green jobs”, services so far play a minor part although there is space for “servitisation” and delivery of solutions rather than commodities, for example in the utilities or in recycling (Beckmann, 2014). The knowledge-intensive business services, of which major contributions to economic growth are expected, apparently are expected to be able to look after themselves in liberalised markets. In particular, a “Single Digital Market” is expected to “boost the sector” and provide cheaper services that enable all other sectors to improve their positions in globalised value chains (European Commission, 2014a, 2013a). Liberalisation of access to the professions and generally “lighter, simpler and less costly” regulation are also expected to boost growth.

With regard to retail, the “European Retail Action Plan” aims for more internationalisation, improvements of accessibility of retail services along both spatially-tied and virtual channels, removing “restrictions” of varied urban planning provisions and consumer protection and has also gathered input by retailers and social partners on improving competitiveness (European Commission, 2015). The “High Level Group in Retail Cometitiveness” sees retail as an important employment area for the lower-skilled and young people but at the same time recommends skill upgrades and some formalisation of vocational training in order o improve the sector’s innovative capacity (cf. Schenk, 2014).

3.4.1. Skills shortages in ICT

Nevertheless, in Europe there is some concern that with increasing demands on skills and rapid technological advances in ICT, the supply of ICT workers, especially graduates, may not be sufficient. In the EU-27, the numbers of ICT graduates have declined from a peak in 2005-6 in many countries, especially at the levels of vocational and pre-vocational programmes and
first-stage tertiary education. This decrease concentrates in countries as diverse as the UK, Belgium, Romania and Italy, whereas some Eastern-European countries and Austria have seen an increase by 50%. Employers across Europe complain about both technical and non-technical skill gaps and training needs of graduates. In addition, there is the age structure of the workforce to consider. In 2010 some 80,000 ICT professionals retired per year, a figure that will increase to ca. 120,000 in 2015. The most recent analysis by empirica reckons that in 2015 the European labour market is lacking some 450.000 to 560.000 IT-specialists, and that this figure could increase to 750.000 or even 1.3 million in 2020 if ICTs expand massively and disruptively by that year (Gareis et al., 2014, S.16ff.). In relation to the actual number of jobs in ICT occupations, not the sector, this would amount to 3.7 to 6.8% of workers in 2015, and in between 9.4 und 16.7% of actual workers in 2020. The empirica authors understand this gap as ‘demand potential’ or ‘job potential’ for ICT jobs (p. 15). It should be seen as a (theoretical) figure describing the demand potential for new ICT jobs which could theoretically be additionally created in Europe due to an e-skills demand likely to occur especially in the years closer to 2020” (p. 15). For this reason, the Commission has established a multi-stakeholder partnership under the heading of the “Grand Coalition for Digital Jobs” to increase the supply of ICT experts and improve the matching of supply and demand of digital skills. This initiative involves ICT and non-ICT companies, schools and universities, governments, public and privat employment services, although unions appear to play a minor part (Holtgrewe and Prammer, 2013). Actions involved aim to improve the image and attractiveness of ICT careers, to offer training packages co-designed with the ICT industry and align vocational training and university curricula better with the needs of the industry and of students, improve recognition of qualifications across countries, stimulate mobility and digital entrepreneurship.

However, there is some evidence that more creativity with regard to recruitment and careers could be helpful. ICTs are increasingly utilised outside their home sectors, “transdisciplinary” skills and competencies are likely to gain in importance, and prognoses on “big data” and the Internet of Things etc. can also be read to suggest that they challenge established divisions of labour between technology and other fields. “Big data” generated by digitised processes in both production and services may not just enable machine-driven analysis but will require human intelligence, sensemaking and contextualisation of possible conclusions. This suggests a focus on ICT skills beyond either traditional ICT qualifications or traditional user skills. If European employees are getting older on average, and are likely to have more discontinuous careers and biographies in the future that require more or less voluntary career changes, ICT skills could be made more accessible to workers with experience and skills in application fields of ICT. Policies of ICT skill upgrades could more proactively consider the occupational perspectives of workers that are traditionally regarded as vulnerable to automation (such as women, older workers), enabling a path of technology use that involves existing workers in the respective fields of application rather than aiming to substitute them.

3.4.2. Health and the social sector

For health and the social sector, a “social investment” perspective (European Economic and Social Committee, 2014) is implied in the argument that

“social services represent a smart and sustainable investment in that they do not only assist people but also have a preventive, activating and enabling function if well-designed” (European Commission, 2014c).

In some countries they also have compensated for employment losses during the crisis (Figure 3.8).

Figure 3.8: Employment growth of 15-64 year olds in human health and social work compared to other sectors, 2008-2013

![Graph showing employment growth]

Source: European Commission, 2014c, p. 5

This sector is female-dominated, higher-skilled but characterised by high shares of part-time work and a considerable gender pay gap. Interestingly, from 2008 to 2013 the proportion of workers aged 50 and older increased from 27 to 32%. During the crisis, in the first years after 2008 the health and social services sector was somewhat sheltered from immediate impacts although there is concern over the impact of recent austerity policies (Karamessini and Rubery, 2013). However, member states during these years – with considerable variation according to their welfare state regimes – spent the largest part of their welfare budgets on cash benefits and focused their cuts on in-kind benefits – a strategy that is obviously counterproductive with regard to employment. It is also worth keeping in mind that in 2013/14 employment growth in the public services concentrated in the lower-wage quintiles (Hurley et al., 2015, cf. chapter 3.2.2) which may suggest a relative de-professionalisation in sectors that are likely to face increasing rather than decreasing skill levels.
3.4.3. **Household services**

Another growth area in the focus of the Commission is services for households, which includes households themselves as employers (NACE 97) or employer organisations in the case of “social work activities for the elderly without accommodation” (NACE 88). Services for households have obvious permeable boundaries with the informal sector. The Commission estimates that in Europe there are some 1 million undeclared workers in that sector (European Commission, 2013b), with estimates strikingly varying by country. Law-abiding Germany is estimated to have some 80 to 90% of undeclared work here, followed by Southern countries at 70%, France and Belgium at 30%, the Netherlands also in this region, and Sweden at 15%.

The use of household services is considered to be associated with the employment rate of women, and in particular their income and the time they have available for housework (p. 22) – evidence that paid housework is less about changes in the division of labour between women and men but in the division of labour among women, and its outsourcing remains a “women’s problem”. The sector, while also providing access to the labour market for the low-skilled, is known for problematic quality of work and life (Poggi et al., 2011; Poggi et al., 2015; Durán López et al., 2015), especially with informal or live-in arrangements or with marginal and undeclared employment.

The distribution of employment in both the “organised” and the “household” sector of domestic work characterises distinct types of welfare states and gender regimes. Southern “familialistic” welfare states use services in households above average, Nordic, Continental and also Western regimes use more professional care services, and Luxembourg and France are above the average in both sectors. Eastern Europeans are below the average on both counts. Policies towards household services aim at reducing undeclared labour and creating (semi-)regular jobs, with the implicit effect of further increasing women’s employment rates or working hours as they save time on housework.

**Figure 3.9:** **Comparison of employment rates in two sectors of personal and household services, 2011**

Source: European Commission, 2013b, p. 17
Boosting employment in these sectors is of course related to some formalisation. Assuming that demand is sensitive to prices, as formalised employment competes with self-provision or undeclared work, the policies of European countries have addressed the price through tax, VAT or social security exemptions for housework and also renovation work (in Sweden and Finland), or through direct subsidies (for example, the service voucher system in Belgium, France, or Austria, cf. IWAK Frankfurt, 2011; Mandl et al., 2015) and simplification of procedures for formally employing people (such as service vouchers in general) and through creating specific statuses for employees in household services (for example in self-employed elderly care in Austria) (European Commission, 2013b).

While public support of formalised household services appears to have some effect in creating employment, research finds there are some downsides and unintended consequences in current policies. Tax deductions and also subsidies generally are not cheap for the state and emerge as subsidies to higher-income households (Pauwels and Ramioul, 2011), whereas wages in the sector remain low and employment is often part-time or marginal. However, longer work hours in a sector of physically challenging work multiply the physical hardships and risks. Service provider organisations, both for-profit and non-profits may be better able to aggregate jobs in individual households to create longer working hours and also to mitigate health risks, advise households and protect the interest of workers. However, professionalization and management of domestic services remain difficult, and it is unclear whether the often isolated and lonely work in others’ homes provides workers with many opportunities of social integration and learning. There may be space for some service innovation and entrepreneurship if domestic services are delivered through a range of more or less decentralised modes of working (for example, laundry or goods delivery services).

With services in elderly care and longterm care in particular, there is some more in-depth discussion of the supply side in a report by Lamura et al. (2014) for the Social Protection Committee. Some countries are encouraging the supply side more or less explicitly through supporting formal service providers and entrepreneurs and through their immigration policies. The general motto for policy appears to be “doing more (and better) with less resources” (p. 9). The challenges in in elderly care, domestic and mobile care in particular, appear as a pronounced expression of Wren and Iversen’s “service trilemma” (Iversen and Wren, 1998): Professional and formal services are costly and require public investment, and low-wage or marginal employment create quality problems, high labour turnover, and indirect cost for social security systems through recurring unemployment or health risks for workers. Indeed, elderly care is one of those “hard work” occupations that are often taken up by middle-aged people, especially women, in the course of discontinuous careers through parental leave, unemployment or migration (Holtgrewe and Sardadvar, 2012; Sørensen et al., 2015; Hohnen et al., 2015). While (re-)training of national workforces and professionalization efforts have their uses, and should be supported by more prevention and rehabilitation for the elderly, Lamura et al. (2014) suggest that migration may be needed to fill gaps between demand and provision of care services and might even provide something of a “win-win-situation”:
“the recruitment of care staff should aim to: (a) reduce staff shortages in destination countries; (b) reduce unemployment in source countries; (c) improve the professional qualifications of younger migrants; (d) facilitate and promote circular migration between destination and source countries; (e) combat the risk of accentuating existing gender gaps in terms of equal opportunities and treatment” (p. 14).

However, the report sees some preconditions: domestic workforces should be given priority and migration take place under “ethical conditions”. Tasks and competencies should be clearly defined, that is, boundaries between different professional groups should be retained to ensure the quality of care. Circular migration should only be encouraged if it generates some upgrading of skills and can be fitted into workers’ lifecourse perspectives. All of this suggests some scepticism about the impact on both workers and their home countries in the report.

The authors also pick up on a criticism articulated in the decidedly feminist stream of research that investigates paid housework in relation with migration, discussing “global care chains” and the intersectionality of gender, ethnicity and class (Hochschild, 2003; Haidinger, 2013; Irek, 1998; Ehrenreich and Hochschild, 2003). The “global care chain” literature in particular connects the issues of women’s migration to do housework for others abroad with the impact of that migration on domestic workers’ own families and care arrangements. The authors argue in a global perspective that transnational inequalities in income and access to paid work translate into inequalities in children’s and families’ access to parental care and love, when families in poorer countries need to make do without their prime earners’ presence in the household. This stream of research asks far-reaching questions on the relationship of “love” and “money” and the limitations of commodification of work that are not easily answered in a progressive sense.

Progressive answers are more likely under perspectives of professionalization and innovation that explore ways of providing personal and domestic services outside the household: prevention and rehabilitation of the elderly and the health-impaired, supporting their self-reliance and self-determination; upgraded childcare and education services, and possibly, shared and professionally supported resources of food and laundry provision that combine paid employment, self-provision, technology and neighbourhood involvement.

This discussion is pursued in between research into service work, welfare state, health and social institutions, and private household and family arrangements and lifestyles. Hence, we cannot go into more detail in this report. Ongoing research under the heading of “care work” aims at further integration of these spheres and exploring their interplay. The recent volume edited by Aulenbacher et al. (2014) provides an international overview of the state of the art here. Under a service perspective, the case of services for private households certainly exemplifies the wide and varied interrelation of economic, social and normative issues regarding work and life, inequality, quality and the possibilities for social progress under constraints.
3.5. Conclusions

Employment creation in the services in the present, that is, in the years since 2000 can be considered a success story in terms of employment expansion (and also growth before the crisis), but less so in terms of the quality of work and the distribution of its gains. A considerable share of the newly developed jobs and the growing sectors have poor job quality, and it appears that in the services, “lovely” and “lousy” jobs are farther apart than in other sectors. In Europe, this polarisation affects wages rather than skills and recent job gains favour workers with degrees – but in 2013/14, the highly-skilled younger workers do not make it into the highest wage groups. Employment changes and polarisation in the service sector so far are compatible with the notion of skill-biased technological change, but other mechanisms come into play: the “cost disease” of uneven productivity increases (see chapter 1.4.2), the losses of trade union’s bargaining power, the increasing diversity of the workforces that opens up lines of segmentation, discrimination and devaluation of work that is done by women, immigrants or ethnic minorities.

There is some tension between the employment impacts of different parts of the service sector: the high-productivity and knowledge-intensive tradable services that are regarded as key sources of economic growth are unlikely to provide sufficient employment for European service workers in the future. Indeed, their very productivity might cannibalise other services or segments of the sector.

Polarisation extends beyond wages to employment forms and contracts. Atypical employment plays a large and increasing part, and only a part of it is in the shape of permanent, regular, longer-hours part-time work that ensures both a good work-life-balance and a living wage. Otherwise, new forms of employment are increasingly precarious, and concentrate on women, younger workers and the low-skilled. While there is a host of research on atypical and precarious employment, it remains difficult to gain an overview. The very variation of flexible employment contracts within and between European countries require repeated exercises of stocktaking and monitoring, and as flexible constructions are becoming more complex and specific, considerable research effort goes into just describing them. Due to the logics of survey research, existing European surveys have a considerable time-lag in their abilities to measure new developments. Hence, it is difficult to estimate the distribution of very new forms of work on the macro level.

However, one detrimental trend is observed in both virtual and face-to-face services: Beyond traditionally flexible work arrangements we find “hyperflexible” employment forms such as zero-hours contracts or the crowdsourcing of microtasks that fragment work well beyond what is known in conventional employment contracts. Their common logic is to comprehensively remove slack times from work and pay for active working times or immediate results only. All the elements of a conventional labour contract, that is, circumscribed working times, a workplace, work tasks and wages or payments are becoming fragmented and/or uncertain. Workers bear the cost and risks of these arrangements and also take over large parts of the coordination effort. Travel and other downtime become unpaid. It is worth noting that such trends are not restricted to the “hyperflexible” arrangements: The research into low-wage
work conducted by the walqing project also found evidence that in the construction sector in particular but also in commercial cleaning, mobile elderly care or privatised waste removal, employers frequently cut pay and supplements for travel time (Holtgrewe and Sardadvar, 2012).

These developments are not just pursued by employers looking to increase their profit in depressed labour markets. They are also driven by cost-sensitive customers, either private households, businesses or the austerity-driven public sector, and by the competition among varied groups of workers of whom some make do with “extra income” or with very low wages. Partly, these dimensions of demand for lower-cost and precarious services are self-enhancing: less affluent consumers may look for cheaper options in transport, accommodation or tradespeople’s services and thus embrace platforms that undermine conventional service business models. On the company side, crowdsourcing fits into the continuum of relocation, virtualisation and the implementation of internal markets and procurement systems (see chapter 4.4) in companies that has been observed in recent years and is likely to continue. It also fits into the pattern of flexibilisation in which companies experiment with various labour market segments, comparing them and having them compete (Rubery, 2006).

Employment prognoses hover between high hopes for the service sector and vast prospects of automation. Nevertheless, there is considerable overlap in the content of the prognoses emphasising continuity and disruption. All expect further expansion in the knowledge-intensive business services, engineering, R&D and IT industries, and also in management functions. There is also wide agreement that in immediate production, transport, logistics, administrative and clerical functions jobs will be lost to automation. Notably, these are jobs that are also found to have had increasing regimentation and declines in overall job quality and discretion in particular in recent years (Holman et al., 2015; Pfeiffer and Suphan, 2015b). This is likely to affect both low- and medium-skilled jobs. In retail and financial services, employment growth is generally expected to have come to an end due to low growth, low investment and technological possibilities of automation and self-service, but the extent to which self-service actually eliminates jobs or shifts them into the logistics or the IT sector is not clear. More robotics-inspired writers also expect low- and medium-skilled and -waged jobs in hospitality, cleaning and gardening to be automated by “cooking, gardening and service robots” (Brzeski and Burk, 2015, p. 1) whereas others regard these jobs as rather more persistent. For example, Brynjolfsson and McAfee (2014) insist on the persistence of manual service jobs on all skill levels: “cooks, gardeners, repairmen, carpenters, dentists, and home health aides are not about to be replaced by machines in the short term” (p. 202).

For the interactive and social services as well, the limitations of automation are not so clear. Frey and Osborne and also Beblavý et al. (2014) see further growth in the health, education and creative sectors, whereas the more policy-aware European studies consider that public and social (also cultural) investment is unlikely to expand in the near future, unless the private sector plays an increasing part. However, from a “big data” perspective, even in the professions of health, law or IT, job creation may be disrupted by machine learning and pattern recognition technologies that allow tasks such as legal research or medical diagnoses
to be either automated or offshored to a large extent (Mayer-Schönberger and Cukier, 2013). However, this mostly concerns the immaterial parts of these occupations that can be digitised.

In this context, the initiatives of the European Commission to create jobs and target particular sectors appear to lack some imagination. They reiterate the polarised developments of the last decades, looking into highly-skilled ICT industries, health and the social sector (without a clear commitment to upgrading of skills and jobs), and into household services where some formalisation of employment is possible but otherwise, problematic working conditions prevail. There is no attention so far to efforts to limit polarisation, for example, facilitate transitions of workers from automation-prone functions or low-wage services into ICT jobs or enhanced “power user” functions. The possible innovative benefits of “overqualification”, that is, skilled workers in operative jobs, are unlikely to materialise if they are left to the creative efforts of individuals and companies in markets driven by cost-based competition – again, this would require dedicated and innovative policies.

In sum, while changes in employment have not been driven by technology exclusively in recent years, although its impact has been large, they are as unlikely to be purely technology-driven in the near future. However, with regard to services in particular, there appears to be some uncertainty over what may or may not be digitised, relocated or automated. This uncertainty is well grounded in the basic uncertainty that services handle by definition, and in the familiar mechanism in which specialisation and increased divisions of labour require coordination and collaboration, which then can be bundled into new services.

The varied profiles of European service societies in terms of sector distribution, employment and equality suggest that there are political choices. Like the knowledge-intensive services in ICT or consulting, personal services in health, the social sector, education or research can be treated as longer-term investments that enable productivity in other sectors rather than as cost to be cut. Indeed, the Nordic societies’ experience shows that growth at both ends of the service sector is no contradiction. Policies and collective bargaining can thus commit to some redistribution. Upgrading workers’ skills and opportunities across skill levels and the lifecourse can also be a collective societal effort.
4. WORK ORGANISATION IN THE SERVICES

4.1. Research types and genres: Policy- and sector-oriented research

With regard to work organisation, there is not a lot of policy-oriented research available since this area mostly falls into the area of management prerogative. However, Eurofound provides some evidence on the impact of various employment regimes on more or less favourable types of work organisation (Lorenz and Valeyre, 2005; Valeyre et al., 2008). A collection of current good practice examples and concepts debates is gathered by DG GROWTH’s EUWIN initiative that explores workplace innovation\(^1\) as do studies from a more academic context. However, case studies and examples on the website mostly over high-tech and knowledge-intensive manufacturing. The EU-Framework Programme-funded projects WORKS and walqing have addressed work organisation through company case studies with regard to value chain restructuring (Flecker et al., 2008; Flecker et al., 2009b) and non-knowledge intensive work (Holtgrewe and Sardadvar, 2012) respectively.

Work organisation is thus a domain of sector-oriented service research in both the labour process tradition and the more systemic or symbolic-interactionist research paradigms of the sociology of work. It addresses structures, procedures and practices in the workplace: hierarchies and divisions of labour, management control and worker autonomy, performance monitoring and working hours (see chapter 4). Again, we find considerable variation among different service types but also some striking aspects of convergence across countries and sectors. Labour process researchers generally tend to focus on standardisation, control and resistance in both knowledge-intensive and less knowledge-intensive services (Bain and Taylor, 2000; Taylor, 2010; Taylor and Bain, 2005; Huws, 2014; Cushman and Thompson, 2012; Newsome et al., 2009, 2013; Bettio, 2008; Bolton and Houlihan, 2005; Grampp et al., 2009; Simpson et al., 2012) whereas systemic and symbolic interactionist researchers tend to emphasise the uncertainties of service work and the limitations of Taylorist work organisation (Braczyk, 1993; Suchman, 1987; Pfeiffer, 2014, 2010; Holtgrewe and Kerst, 2002b; Tacke and Wagner, 2005; Dunkel and Weihrich, 2012). With a focus on job design, researchers from the paradigm of “high-performance work systems” investigate the possibilities of a “high road” in services (Gadrey, 2005) and its institutional and organisational prerequisites. Evidence on virtual work and collaboration also covers work organisation (Haidinger et al., 2014; Schönauer et al., 2013; Bergvall-Kåreborn and Howcroft, 2014, 2013; Dubé and Robey, 2009) and often explores the contradictions of collaboration and competition.

There is considerable focus on customer interaction and the “service triangle”, that is the influence that customers exert on the organisation and quality of service work. This has first been investigated for fast-food (Leidner, 1993, 1996; Royle and Towers, 2002a; Royle, 2000) and call centre work (Batt et al., 2009b; Holtgrewe et al., 2002; Holtgrewe and Kerst, 2002b) but increasingly addresses other service sectors as well (Kirov, 2015; Korczynski, 2002, 2009; Dunkel and Kleemann, 2013). Some recent work focuses on improving job design in interactive

\(^{1}\) http://portal.ukwon.eu/euwin-knowledge-bank-menu-new
services (Böhle et al., 2015, 2014; Dunkel and Weihrich, 2012). Self-service and the role of the customer is investigated in the continuum from “service” to “self-service” (Dunkel and Kleemann, 2013; Voß and Rieder, 2005).

4.2. Standardisation of services and its limits

With the heterogeneity of services that range from the standardised and mass-delivered to the professional and customised services, modes of work organisation vary accordingly. However, standardisation of services has been concerning service researchers since sociologist Max Weber discussed the “iron cage” of bureaucracy (Weber, 1980). It may apply to different aspects of the service labour process: Standardisation can affect both processes and/or products. Both aspects are easily distinguishable in mass manufacturing, but less so in services.

The question if and how services can be standardised in a Taylorist way has been frequently debated in service research. Taylorism, based on the Scientific Management strategies of work organisation of the 1920s, means an in-depth division of labour that separates operative work tasks from planning functions, divides work up in smallest steps and assigns the cheapest possible workers to tightly regimented work tasks in order to increase labour productivity. While this strategy of work organisation has frequently been considered obsolete and the term may be overly associated with 20th century industrialisation, similar strategies of deskilling, tight regimentation and subdivision of tasks are certainly still present in both the service and manufacturing sectors (Thompson and McHugh, 2002). In service studies in the social sciences, labour process theorists frequently emphasise standardisation and researchers from a symbolic-interactionist angle or roots in organisation studies explore its limitations. Nevertheless, both everyday consumer experience in the 20th and 21st century and research into service work organisation show that particular services can be standardised to a large extent and ICTs are playing a central part in this. In the 1990s, fast food multinationals (Leidner, 2002, 1993, 1996; Royle, 2000) and around the year 2000, telephone call centres were emblematic examples of a return of Taylorised modes of rationalisation in services. Retail also combined spatial concentration, labour market segmentation and intensive use of ICT systems for inventory control, supply-chain management and staff scheduling (Carré et al., 2010; Voss-Dahm, 2009). The ICT and software development sectors pioneer virtual collaboration and also forms of indirect control of workers through key performance indicators and performance appraisal systems. Here, and in other knowledge-intensive business services, “products” can be more or less customised and innovative, but companies aim at standardising processes and knowledge management.

Labour processes continue to be somewhat open to varying contexts and uncertainties, but service standardisation and a struggle for management control are observed throughout the service sector. Yet, the need for coordination among workers and customers and the unpredictabilities of service work remain. For this reason, the Taylorist “one best way” is found in services even less than in manufacturing, and work organisation in services generally has alternatives. Service researchers distinguish “high road” or “low road” business strategies and modes of work organisation:
“On the so-called ‘high road’, there is a positive reciprocal relationship between the manufacture of quality products, high service quality and good employment conditions, such as reasonable pay, good social protection and high skill levels. This development path is underpinned by institutions that open up longer term investment prospects in both markets. On the ‘low road’, a vicious circle is created by the combination of short-termism in the markets, encouraged by a weak institutional framework, and poor working and employment conditions” (Bosch and Lehndorff, 2005a, p. 3)

These types are not always neatly distinguishable. In the interactive services especially, skilled workers have been trained to provide good-quality service to customers and indeed, “helping people” or solving problems for their customers or clients is a central part of the professional identities of care workers, salespeople, financial advisors or call centre agents. In service sectors or fields where employment conditions are fragmented or work tightly regimented, workers struggle to retain these claims to quality individually as their employers embark upon a “low road” of regimented work, precarious employment or impose strict sales or performance targets on otherwise skilled work. In such configurations, skill and professionalism is devalued and rendered invisible rather than lost. This mechanism has been observed first for women-dominated sectors and occupation in personal services (Rabe-Kleberg, 1987), call centres (Holtgrewe, 2007) or clerical work (Gottschall et al., 1990). It is has also been found to apply to other vulnerable groups of workers who have limited labour market alternatives and options to look for more favourable working conditions: skilled sales workers in retail who increasingly work part-time with increasing work intensity and lowered staffing levels (Voss-Dahm, 2009), call centre workers who struggle to retain professional identities and aspirations (D'Cruz and Noronha, 2007) or workers in elderly care with limited support by their work organisation (Sørensen et al., 2015).

Comparative studies of retail (Carré et al., 2010; Jany-Catrice and Lehndorff, 2005), call centres (Batt et al., 2009b; Holman et al., 2009; Lloyd et al., 2010), hotel work (Vanselow et al., 2010), or elderly care (Anxo and Fagan, 2005; Sørensen et al., 2015) and in the knowledge-intensive services of software engineering (Plantenga and Remery, 2005) and banking (Haipeter and Pernod-Lemattre, 2005) show that work organisation is shaped by the interrelated factors of business strategy, customer segmentation, labour market segmentation and inequalities between more or less precarious workforces (see chapter 3.2.2) and the institutions of the labour market (Appelbaum, 2010; Gautié et al., 2010; Bosch and Lehndorff, 2005a). This confirms the findings of studies that investigate modes of flexible working (Davoine et al., 2008; Lorenz and Valeyre, 2005) and restructuring on the level of countries and EU regions (Gallie, 2013; Makó et al., 2009). Typically, “high road” strategies are more frequent in the Nordic and some Continental European countries that have strong social partnership and a strong involvement in work design (such as Belgium) and/or vocational training systems that allow for higher functional flexibility and more discretion of workers (such as Germany or Austria). Standardisation of work organisation thus is manifold. Even as management concepts are developed and copied internationally, suggesting a “best way” of work organisation, they are still implemented in varied ways that draw on the vocational training systems, traditions of
collaboration and competition, management and working cultures of different countries and also companies.

The standardisation of work processes has been shown to be connected with increased numerical flexibility (through part-time, temporary, or zero-hours employment, cf. chapter 3.2) and the outsourcing of service functions. Vice versa, numerical flexibility and outsourcing require further standardisation. Paradoxically, the increasing variation in forms of atypical and precarious employment that also increases management options to flexibilise and subdivide work between different workforces frequently breeds standardisation of work organisation.

For example, if larger numbers of short-hour part-time workers are employed, they need to hand over tasks and coordinate work efficiently. This has been well established for lower-wage and lower-skilled segments of the economy (Royle, 2004; Gautié and Schmitt, 2009; Shire et al., 2009; Recio et al., 2015), with often problematic consequences for the quality of work and service, labour turnover etc. It also applies to the less obvious patterns of standardisation in more knowledge-intensive segments (Flecker et al., 2008; Boes and Kämpf, 2011; Howcroft and Richardson, 2012; Carter et al., 2013). “Very new” modes of work organisation through crowd employment are likely to reiterate the dialectic of standardisation and the coordination needs of virtual and distributed work (see chapter 3.3.3). Lehdonvirta and Ernquist show this for the crowdsourcing of interview transcriptions:

“First, tasks such as transcribing audio interview recordings into text must first be transformed into a form that can be disseminated to multiple workers over the Internet. This typically involves breaking the work down to suitably sized ‘microtasks’, constructing a user interface that workers can use to complete the microtasks, integrating quality assurance into the process, and recombining the completed microtasks into a final deliverable. While in theory there is a huge amount of repetitive everyday work in offices and homes around the world that could be outsourced to microworkers, the bottleneck is transforming it into a suitable form” (Lehdonvirta and Ernkvist, 2011, p. 24).

The example aptly illustrates the organisational effort and specialisation that goes into “doing” the transformation of work into quasi-Taylorist or modularised tasks that then can be performed by crowds that are coordinated over a platform.

4.3. **Standardisation and the customer**

Where services are delivered in interaction with customers, service production can only be standardised incompletely beforehand. The final definition of products, processes and standards is an integral part of service delivery. For this reason, even in standardised interactive services the customer needs to be involved in the actual standardising. Getting him or her to navigate a self-service store, make their choices efficiently, have PIN codes or passwords ready on the phone and so on requires considerable interactive work already (Holtgrewe and Kerst, 2002b), both remotely and in actual space (Voswinkel, 2004). Of course, this interactive standardising does not happen from scratch in the service interaction. Customer expectations are shaped through marketing and branding, architectural and aesthetic features of service sites or user interfaces, recommendations and reputations, and of
course, through day-to-day routines in contemporary service societies. Again, it is also information and communication technologies that shape lines of access to the service. This is increasingly the case for space-bound face-to-face services as well: often, potential customers supplement traditional and analogous ways of gathering information on services (such as recommendations, advertisements etc.) with online research and information (Lamla, 2007).

For this reason, it has been argued that Taylorism in the sense of separated planning and execution of work, or bureaucratic rationalisation in the sense of formal rules and clearly delineated hierarchies and responsibilities only “work” to a limited extent in service work organisation, in particular where it deals with interactive or business-to-consumer services. Services cannot exclude other aspects of work and interaction, the not-so-rational and unpredictable. Discussing interactive, frontline services in contact with customers (Frenkel et al., 1999), Korczynski describes the “customer-oriented bureaucracy”. This concept “captures the requirement for the organisation to be both formally rational, to respond to competitive pressures, to appeal to customers’ wishes for efficiency, and to be formally irrational, to enchant, responding to the customer’s desire for pleasure, particularly through the perpetuation of the enchanting myth of customer sovereignty” (Korczynski, 2002, p. 65).

“Enchantment” in this terminology draws on sociologist classic Max Weber’s notion of the disenchantment of the modern rationalised world (“Entzauberung der Welt”), and points out that successful service addresses customers’ less-than-rational, expressive or subconscious wants (Ritzer, 1993). Service providers are not exclusively interested in their customers’ instrumental, value-for-money orientations. They find good business sense in seducing or “enchanting” customers even in the most rationalised environments, appealing to symbolic meanings or possibilities for self-expression to retain customers and extract more value from them (Korczynski, 2002, 2009). An “enchanted” or “delighted” customer will refrain from behaving as a rational market subject who continuously compares cost and quality, shops around and exits a service relationship as soon as a better offer comes along. Leidner quotes a McDonald’s manager who seriously described his or her mission to “treat each customer as an individual in sixty seconds or less” (Leidner, 1993, p. 217). However, “enchantment” and the raising of customer expectations carries its own risks when promises and realities fall too far apart and cannot be reconciled:

“Enchantment may easily turn to disillusionment in the moment when the individual customer’s lack of sovereignty becomes starkly apparent.” (Korczynski, 2002, p. 63)

Interactive services combine instrumental and other rationalities and irrationalities in various ways. Partly, they are plainly manipulative, demanding emotional labour from workers in tightly regimented workplaces, creating pseudo-relationships from standardised encounters through the use of rhetoric and emotional manipulation (Gutek, 1995; Hochschild, 1983). However, the further debate on emotional labour has shown that service workers (and also customers), if skilled and supported by the organisation, can experience the interplay of commercial and expressive logics as a pleasurable exertion of competence and skill: solving a customer’s problem, helping a person, cheering a grumpy client up, or selling them something
outside their original shopping list can be an enjoyable challenge and success for both sides (Sturdy and Korczynski, 2005; Voswinkel, 2005). On the other hand, competently navigating a standardised self-service environment may give customers a sense of autonomy and independence. This ambiguity is captured in the title of the volume edited by Sturdy et al. (2001): “empowerment and entrapment”.

A different angle on customer integration is pursued with regard to innovation (also see chapter 7.4). Customisation of high quality or business-to-business services has the advantage of mobilising customers’ knowledge and innovative capabilities and retaining customers in long-term, innovative and collaborative relationships which also open opportunities for selling “more and better” services. This is the domain of the “service-dominant logic” literature (see chapter 1.5.1 and 5.4). Jacobsen (2005) points out that this type of relationship may be put at risk if customers are treated as productivity resources in self-service and standardised service encounters. However, platform business models may explore a different type of “customer-oriented bureaucracies”: Google, Facebook and others are capable of utilising process-generated data and information, from socio-demographics to personal expressions, moods and tastes as “raw material” for marketing services. Here, it is not an “empowered”, competent customer entering into a skilled, equitable interaction that generates knowledge and adds value and pleasure to a business transaction. The interaction is bypassed as platforms intransparently configure users into disempowered data sources while shifting the actual work to them. Indeed, users of the “support” websites of large or monopolistic software providers (or other services) frequently find that they receive faster and better actual help and information from other users on various platforms and forums than from “official” support resources.

4.4. Standardised services: commonalities

Work intensification is probably the most common and convergent trend reported by European workers in the Working Conditions Survey (Eurofound, 2011; Holman et al., 2015). Management concepts of “leaness”, that means, a focus on productivity and elimination of slack, the close tailoring of staffing levels to demand, flat hierarchies and continuous feedback are also common, and are obviously the reason for that work intensification.

In a recent talk, sociologist Ursula Huws aptly summarised the commonalities of work organisation in various services: knowledge-intensive business services, freelance creative work, work in the public sector, low-skilled service work, and work in the informal economy. As value chains through outsourcing frequently are extended across these segments of the service sector, and coordination occurs across space with the use of ICTs, workers in highly diverse occupations and work contexts share some features: the standardisation of tasks, the far-reaching use of performance measures (even if these measures are at odds with the actual content of the job), the use of virtual teams (even if the work is not team-based), the use of

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intranets or platforms to manage workflow and knowledge and (often through the same platforms) the use of self-service systems for all kinds of administrative work within a company or workflow that is delegated onto workers. In spite of (or because of) all standardisation of work organisation, unpredictable demands and rewards are issues shared by creative and low-wage workers, immaterial and also material services.

We might add that in many instances, “customers” in either a work or a consumer role are also enrolled in the use of these means of work organisation. Online forums, media and real-life dinner parties are full of complaints over the frustrations consumers experience as they repeatedly provide information to call centre workers, keep track of vital information in hospitals, and generally coordinate those parts of service workflows that get lost within or between the software tools that are supposed to manage service workflows.

Performance indicators are a key element of service standardisation even and especially when tasks are not standardised in themselves. Electronic monitoring and often immediate feedback on sales, numbers of calls or scans are part of many standardised services, and again, customers are routinely asked to contribute to that feedback. Indeed, customer satisfaction, quality, cleanliness and other ratings can enter into measurements and indicators – but these measurements can still be used for better or for worse, in a supportive or disciplinary way (Lankshear et al., 2001; Holman et al., 2009). Knowledge-intensive services and management functions are not exempt either: here, management by objectives, ever-increasing targets and ongoing performance appraisals are instruments to tightly control non-standardised work by its results. Surveillance may have ambiguous consequences and does not appear to necessarily render work more efficient or productive. Data still require interpretation: quality managers are well aware that not every fluctuation in a metric requires immediate action (Holtgrewe and Kerst, 2002b). Workers are likely to direct their creativity and skills towards working “against” the system both to resist control (Ackroyd and Collinson, 2005; Bain and Taylor, 2000; Beirne, 2013) or to get the job done. Apparently, they also find ironic and ambiguous ways of coping with workplace monitoring (Sewell et al., 2012; Fleming and Spicer, 2003). In the service triangle, they experience tensions between their responsibilities towards the client and the demands of the organisation (Korczynski, 2003). For example, Brown and Korczynski (2010) find that in elderly care performance monitoring reduces workers’ commitment to the organisation while it does not compromise their discretionary effort spent in care work, which still goes into the delivery of good care to the client (cf. Sørensen et al., 2015). The same applies to management rhetoric and motivation techniques that complement standardisation and restructuring efforts. “Fun” at work, the holding of competitions, events and celebrations has been discovered as a common practice of motivation, especially in target-driven sales services (Kinnie et al., 2000; Bredenkötter and Musiol, 2011; Martin et al., 1998), and is of course treated with some mistrust by critical researchers (Artus, 2008). Workers appear to regard both motivational efforts and empowerment rhetoric with frequent detachment (Holtgrew, 2006) or cynicism (Cushen and Thompson, 2012) that mirror the dialectic of enchantment and disillusionment that customers experience.
4.5. **Standardisation and autonomy in various service industries**

In different services, standardisation takes different shapes. Call centres as medium- or low-skilled and space-independent services are notorious for standardisation coming close to Taylorism with scripts, monitoring and work being directed by the stream of calls. Taylor and Bain (1999) famously quoted a call centre employee talking about “an assembly line in the head” and then in good labour process tradition continued to investigate both management control and worker resistance in the industry (Bain and Taylor, 2002, 2000). In the German context, where skill rather than control is a traditional focus of the sociology of work, the emergence of call centres was considered symptomatic of a possible departure from the “high road” of service reorganisation, which was considered a working *Leitbild* of German large organisations in the 1990s (D’Alessio and Oberbeck, 1998; Keltner, 1995; Batt, 2000; Holtgrewe, 2003). At that time, skilled clerical personnel faced some increased insecurity of employment but demands on skill were increasing rather than decreasing. The emergence of call centres then brought some disillusionment, and the same authors who had investigated white collar work before came to interpret call centres as a return to Taylorism and deskilling service work (D’Alessio and Oberbeck, 2002). However, especially in a German context, in both retail (Voss-Dahm, 2009; Carré et al., 2010) and call centre work (Holtgrewe et al., 2005) the majority of employees were found to have vocational training and although their skills are not necessarily paid or recognised, they provide a base for less standardised work and some functional flexibility (Holman et al., 2009).

Shared and outsourced *back-office services* are similarly standardised (see chapter 5.3) even though service providers need to adapt to clients’ demands (Howcroft and Richardson, 2012)—but clients may outsource the service precisely in hopes for productivity gains that they cannot achieve in their own organisation (Pfeiffer, 2003). Work in shared services then often consists in workers standardising their own work by converting knowledge into data to feed into knowledge management systems and databases, which enables the organisation to use lower-skilled workforces in a next step (Howcroft and Richardson, 2012; Miozzo and Grimshaw, 2011).

For **non-knowledge-intensive and space-bound services** such as “sales, food preparation and serving, building maintenance and grounds cleaning, personal care and service, and healthcare support” (Vidal, 2013, p. 588) work organisation modes of standardisation and regimentation are also predominant, but on closer inspection, modes of standardisation and spaces of autonomy vary by the sector and indeed, with each company’s management practices. As the *walqing* project noted,

> “Organising and managing spatially distributed labour-intensive work presents some distinct challenges: Workforces must be deployed across sites, schedules developed and adapted, absences covered and local contingencies accommodated” (Holtgrewe and Sardadvar, 2012, p. 184).

Generally, problematic working conditions such as downward pressure on wages, both physical and psycho-social strains (often in combination), precarious employment (see chapter 4.5) and low discretion form vicious circles: under problematic working and employment
conditions, labour turnover is likely to be high and employers may be faced with staff and skill shortages. This leads to the design of more standardised and regimented tasks in order to save on training cost and time. In turn, working conditions become more pressured, turnover or absences increase and so on. For call centres this pattern has been described as a “sacrificial HRM strategy” (Wallace et al., 2000), but it also applies to spatially bound low-wage services such as hotel work (Cisco, 2008).

As in call centres, hierarchies in cleaning, elderly care and waste collection tend to be flat, with foremen/-women or frontline managers in charge of several workplaces or of large groups of workers. The need for coordination also involves customers, often in face-to-face contacts. It is distributed among frontline managers, formal or informal teams, and local interactions of workers and customers on-site. The effort increases when employers resort to short-hours part-time work, and thus managers have to coordinate more people in tighter schedules. The work of frontline managers can thus become quite complex very quickly, negotiating and being available for all sides. While hierarchies in hospitality are often elaborate although collaboration across ranks is a general social norm, in cleaning the walking project found some informal leadership roles that are not necessarily remunerated. Here, companies varied considerably in the responsibility and resources they assigned to frontline managers who were expected to manage absences and on-site work arrangements under tight schedules mostly by informal means (Holtgrewe and Sardadvar, 2012; Holtgrewe and Hohnen, 2015).

In the personal services, we find more intricate patterns of autonomy and standardisation. More discretion at work is not always an improvement there, and it is of course circumscribed by clients’ or customers’ needs. Mobile elderly care provides some emblematic examples. Workers generally work individually in clients’ homes with their clients, and have considerable responsibility:

“Care workers’ duties range from simple (cleaning room, washing, cooking and so on) to complex tasks (conflict management). Empirical data demonstrate that elderly care at home requires considerable social skills and dispositions: competencies to communicate, to manage conflicts, to have a special attitude to the patient that involves being ‘caring’ and aware of the boundaries of the job, to be both empathic and physically strong to fulfil care duties [...]workers are given tight schedules and Tayloristic time slots, but everybody appears to know that it is impossible to really do the job in this Tayloristic way” (Sørensen et al., 2015, p. 237f.).

Care workers are often assigned detailed timeframes for particular tasks that are also related to the cost their employer charges municipalities or insurances. Autonomy thus consists in the challenging tasks of making the local and interactive reality match with the organisation’s (or the organisation’s client’s) demands. This varies in different countries.

“In the UK, Denmark and Germany care work is more standardised and care workers have less autonomy but higher protection and safety at work. In Lithuania and Italy, care work has fewer rules and norms about how work has to be done and more space for autonomy, but less protection and safety for workers” (p. 240).
In the latter countries, work organisation left workers “on their own” to a large extent, and Lithuanian care workers even mobilised family and friends to run errands or help out with their clients. Similarly, cleaning in private households in Belgium, formalised through the service voucher system, came close to informal sector arrangements with regard to work (dis)organisation and mostly was negotiated by customers and cleaners among themselves with little involvement of the employer organisation.

In knowledge-intensive work, standardisation addresses management techniques, workflows and processes rather than tasks. Here, management control is (mostly) exerted in more “indirect” ways, through key performance indicators and continuous performance appraisal, and through the checklists and tools of knowledge and project management (Tünte et al., 2011). Work organisation is based around results rather than procedures, and mostly relies on full-time and permanent employment. Internal cost- and profit-centre logics govern work in these contexts as well as a continuous benchmarking of teams and locations with the more or less latent threat of outsourcing or relocation (cf. chapter 5).

“The shaping of organisations’ competitive environment and the establishment by management of markets within service organisation are intended to expose employees to the constraints of competition and thereby induce them to increase their job performance. Resources are made scarce and more responsibility for finding a way out of the difficulties is devolved to employees.” (Bosch and Lehndorff, 2005a, p. 18)

Projects are a distinct form of work organisation that combines temporal and resource constraints with increasingly formalised models of project phases, milestones and risk assessment (Kalkowski and Mickler, 2009b) and still somewhat diffuse responsibilities of workers and management. On the one hand, project management provides ample instruments for standardising procedures and processes. It also has developed as a distinct function and possibly, profession, and project managers tend to take on quasi-entrepreneurial functions. On the other hand, this monitoring may take on a life of its own. Updating documentation and knowledge management tools adds to workloads and workers often feel it to distract from their “real” and frequently time-famished job (Perlow, 1999). Gleadle et al. (2012) find that in R&D, project management erodes an autonomy and discretion that research engineers used to regard as a core of their professional identities, although some of them see this as a chance at professionalization in a new area (Holtgrewe and Meil, 2008a). Kalkowski and Mickler (2009b) point out that the sophisticated and formalised project management of large German IT and automotive companies remains distinct from Taylorist work organisation:

“even in the most advanced applications of project management, formalisation does not go so far that central project management staff would plan, steer and control project work and reduce teams to operative functions” (p. 93, translation UH).

Companies there do not expect strict adherence to procedure but aim for project management as a cognitive frame and “common language” on which continuous learning and improvement can be based.
Nevertheless, there is some evidence for an increasing depth and reach of control in knowledge-intensive services. Feedback loops appear to be tightened and pressure increased in many companies. SAP works councillor Ralf Kronig points out that cloud computing has a double edge in this context: running clouds means a further acceleration of project work as changes are continuous, release cycles short, and response to client demands needs to be immediate. On the use side, cloud-based software tools are rendered more powerful and capable of merging enterprise resource planning and HR. In this way, differences and variations in workers’ performance can be monitored in real time and workers may find themselves exposed to continuous rankings and comparisons that in effect radicalise competition among co-workers (Kronig, 2014).

Nevertheless, in those instances where project management crosses boundaries of companies and workplaces in particular, work organisation may morph into some disorganisation. Managers and companies cut cost, downsize and reduce the resources that conventionally were supposed to be prerequisites for doing one’s job. Anecdotal evidence suggests that the investment into training, professional and personal development for which Nordic ICT companies were known in the mid-2000’s (Plantenga and Remery, 2005; Holtgrew and Meil, 2008b) has been considerably downsized in recent years, and shifted into workers’ own responsibility as workloads are increasing.

Research into project organisation thus discovers both sides, effective standardisation and some professionalization (Kalkowski and Mickler, 2013, 2009a; Mayer-Ahuja, 2011) and disorganisation and individualisation. This is exacerbated when virtual collaboration in outsourced or networked arrangements is considered (Holtgrewe, 2014). The tools enabling virtual collaboration and knowledge management need to be complemented by socially established modes of collaboration, and both aspects need to enable one another (Dubre and Robey, 2009). Purely virtual collaboration becomes ineffective in unstructured situations and without clear divisions of labour, and vice versa, structures and tools need to be utilised through intelligent and circumspect labour (Holtgrewe, 2012; Schönauer et al., 2013). Often enough it is workers themselves who make sense of tools and tasks, establish workable collaborative relationships and compensate for management deficiencies or inadequate procedures and instruments.

Authors such as Thompson (2003; 2013), Müller (2010) and Holtgrew (2014) argue that project-shaped and virtual collaboration and coordination is an inherently contradictory endeavour under conditions of intensified work, increased competition and indeed, financialised capitalism. Not just companies but locations, work teams or individual workers become both collaborators and competitors and collaboration between locations can be undermined by internal tendering. This shifts the balancing of collaboration and competition onto project managers at the expense of a company’s internal knowledge circulation (Holtgrewe, 2008; Müller, 2010). The argument can be phrased in Marxian terms: While the use of ICTs to enhance collaboration is a powerful force of production, relations of production in the form of capitalist hierarchies and internal markets undermine this potential. Downsizing,
shortened development cycles and the profitability demands of shareholders and financial markets thus may undermine rather than drive possible productivity gains.

On a more practical level, virtual collaboration presents its own pitfalls if interfaces and task modules are not specified sufficiently. A case study of a start-up company investigated by Schönauer et al. (2013) shows how product development with a spatially distributed team failed in spite of developers’ previous collaborations in an open-source context. The company eventually returned to localised working at the office. It now employs local freelancers – upon the condition that they work from the company’s office for at least three days a week. This case confirms that the crucial issue in geographically distributed virtual cooperation appears to be less the standardisation of work in an industrial sense but a precise delineation of modules and definition of the interfaces between them.

It is worth keeping in mind that standardisation in itself is not necessarily detrimental to job quality. It has been argued that bureaucratic control and coordination can be used favourably, enhancing workers’ collaborative capacities through increased knowledge and transparency of the labour process (Adler, 2005; Adler and Borys, 1996). In interactive services, workers can use organisational standards and routines as resources in handling difficult or demanding customers – if the company supports that use (Korczynski, 2003). A large Norwegian cleaning company studied in the walqing project had standardised service levels for cleaning (Finnestrand and Ravn, 2012) that prescribed the agreed frequency of cleaning routines, which allowed cleaners to politely refuse ad-hoc customer demands. A Spanish hospital catering company introduced “cold line” food preparation (pre-cooked and chilled meals that are reheated at the time of serving) in close consultation with the trade union, aiming to improve work. This rendered the labour process more predictable, brought some changes in skills, but also teased out work peaks and just-in-time demands and reduced the amount of work at atypical hours (Antentas, 2012). Leslie Perlow’s overburdened software engineers (Perlow, 1999) are an older but still instructive example where through the regulation of ad-hoc communications and the introduction of quiet working times, workers and projects became more effective.

However, as standardisation according to the evidence on work organisation appears to be more often aligned with cost-cutting strategies, possibilities of “working smarter”, improving both job quality and service productivity remain somewhat underexplored in actual practice. The next chapter presents more examples of “win-win” strategies that involve more or less active participation by workers and unions.

4.6. **The “high road”: good practices and (participatory) workplace design**

The argument that more autonomy and discretion, higher quality of work and better skills contribute to productivity, quality and innovation has been pursued from various angles: From the job design (Hackman and Oldham, 1980) and socio-technical systems design perspective

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(Trist, 1980), in the discussion of high-performance work systems (Murray et al., 2002; Appelbaum et al., 2000), and looking into determinants of job quality and worker well-being (Holman, 2013; Eurofound, 2014). The consensus is that

“working conditions associated with positive worker health and well-being are often also associated with high worker motivation, creativity and commitment, leading to good levels of work sustainability and therefore, ultimately, the productivity of organisations.” (Eurofound, 2014, p. 2)

The concept of “workplace innovation”, deriving from various research traditions is a synthesis of these concepts (Totterdill et al., 2002; Totterdill, 2002; Pot, 2011) into a wider process of integrated organisational change to improve both organisational performance and the quality of working life. The concept and the network of its promotors has recently developed into an initiative by DG GROWTH, although currently, examples mostly cover manufacturing. A large part of the current work consists in developing measurements and indicators for workplace practices that contribute to these goals (Kesselring et al., 2014).

For services specifically, the argument is that better working conditions and skill development improve workers’ motivation and commitment, and this feeds directly into the quality of customer service and interaction (Dunkel and Weinrich, 2012; Böhle et al., 2014, 2015). Well-paid and secure service workers with skills and discretion are expected to deliver competent and circumspect service, satisfy customers and develop a knowledge and competence that they may feed into ongoing improvement and innovation of services.

Office and administrative services have been a traditional field of workplace intervention and design in the respective participatory job design initiatives of European countries in the 1970s already. The introduction of ICTs into workplaces triggered dedicated initiatives. For call centres, some German initiatives addressed software ergonomics (Theissing and Maaß, 2002; Hammel, 2001). An interesting case is German Tekomedia, a call centre company established by former call centre workers after Germany’s first call centre strike at Citibank (www.tekomedia.de). The company provides knowledge-intensive services for utilities and also offers voice training to companies and workers in various speech-related occupations and participates in various job design projects. The Danish sequence of action research-based job redesign initiatives (Møller et al., 2008; Wiegman et al., 2010) put some of the findings of the Global Call Center Industry project (Holman et al., 2009) into practice. Funded by the European Social Fund, they recruited large call centres to participate and commit to the implementation of changes, surveyed workers and involved management and workers in dialogues to develop joint ideas and tailored initiatives to improve working conditions and the psychosocial work environment:

“The ideas were based on a vision of moving away from control and towards a focus on staff involvement, independence, responsibility and development” (Møller et al., 2008).

Workers were trained to take more responsibility and form meaningful teams, and managers learned to take a supportive rather than disciplinary role in supervision. Indeed, according to
workers’ responses in repeated surveys, the working environment and satisfaction with teamwork improved. Even call monitoring was considered more supportive:

“More employees saw monitoring as a way of increasing effectiveness and making their work visible. Fewer were stressed, nervous, irritated or angry about it, and fewer felt that the monitoring was a kind of surveillance and control.” (Møller et al., 2008)

Hotels in France and Germany have also taken some initiatives that appear to be more employer-directed. German Accor hotels, supported by the Fraunhofer IAO Institute, implemented a project in hotel housekeeping (done mostly by subcontractors and supervised by own housekeeping managers) that combined a “lean” management logic with some skill upgrading of frontline managers (Cisco, 2008): Quality control was shifted onto room attendants themselves in order to prevent mistakes rather than having to correct them. Language-independent Instruction manuals were created with input by workers and frontline managers trained in more of a “coaching role”. “Piece-workers” were supposed to redefine themselves as “service workers” – with cost savings of some 20% and an aim to offer workers some pay incentives (ibid.). In France, after industrial action at a large subcontractor of Accor, the company insourced a part of the service again and improved job satisfaction and labour turnover (Guégnard and Mériot, 2009). Guégnard and Mériot (2009) report further initiatives from French hotel chains (also involving Accor and others): Providing work schedules in advance, having room attendants work in pairs and offering workers some social work support. The German PiA project also provided training and job design measures for interactive services in hotels, travel and financial services (Dunkel and Weihrich, 2012).

The walqing project also gathered some examples of “good practices” in improving the quality of work in low-wage services on its website (http://www.walqing.eu/index.php?id=145). In addition, the project itself conducted some small-scale interventions to identify and promote good practices in low-wage services such as Bulgarian and Danish waste management and the Austrian and Norwegian cleaning sectors (Ravn et al., 2012). Table 6.1 provides an overview of initiatives observed in the project.

Generally in low-wage and non-knowledge-intensive services the project found that the stabilisation of employment improved job security and flexibility, in particular by making flexible and precarious stand-in positions more permanent through teamwork or working time banks. Work reorganisation (see the Spanish catering example in chapter 6.4) could reduce work peaks and improve health and safety in the process, as did the promotion of daytime cleaning in Norway and Belgium. There clients were encouraged to allow commercial cleaners to do their work on their premises during operating hours. This allows for less short-hours part-time and more regular jobs and also for more interaction and recognition for cleaners whose work may become rather isolated during early morning or late-night shifts. While in other sectors, skill improvement is a traditional area of win-win initiatives of social partners, in the low-skilled services, the walqing project found limited efforts at skill improvement outside the Nordic countries (Denmark and Norway) where formal vocational training with wage incentives was offered for waste collectors or cleaners (Kirov, 2015).
The literature on workplace innovation thus provides examples that range across all types of services. Indeed, the non-knowledge-intensive and lower-skilled services clearly have room and a strong need for improvement. Nevertheless, practices are often concentrated in particular flagship companies, and debates around workplace innovation have a way of “preaching to the converted” (cf. Gold et al., 2012). Most of the examples concentrate in countries with long traditions in job design which suggests, again, that work organisation is clearly embedded in institutional and cultural structures and mindsets of various societies. However, transfers appear to be possible, and in the Southern and Eastern European countries small initiatives and investments can have a considerable impact (Holtgrewe et al., 2015c). Also, Gold et al. (2012) point out that

“workplace knowledge is often reduced to a commodity traded by consultants or technical experts, but this can inhibit sustainable change because the top-down application of generalizable concepts fails to engage managers or employees and ignores their tacit knowledge”.

This points to another contradiction of services and the limitations of service markets: workplace innovation can certainly be conceived of as a knowledge-intensive business service, such as the commercial and well-marketed “Great Places to Work” certification. On the other hand, purely commercial services will create market failure as they are likely to undersupply those companies and sectors that need improvements in the quality of work most: small businesses and those that lack resources to invest in improvements. As with other high-quality services, leaving them to the market without public policy taking a role in ensuring accessibility.
and societal usefulness of social and service innovation will underutilise knowledge and put productivity and quality gains in the poorer sectors and segments at risk.

4.7. Conclusions

Work organisation in the services ranges from modified Tayloristic processes of standardisation to a wide diffusion of indirect modes of control and management. In both virtual and space-bound services, the coordination of actual collaboration, both within work teams and with customers, appears to create new challenges under conditions of increased competition among companies and workforces. Across Europe, workplace autonomy and “high road” work arrangements are not found to have expanded in the last decade (Green and Mostafa, 2012; Pot, 2011; Eurofound, 2011). Tight regimentation and standardised work are found in “old” and “new” service jobs:

“In effect, claims of empowerment, learning and development, teamwork and flexibility are slotted into workplaces where little has changed: jobs are not redesigned, work is not reorganised, and attempts to work flexibly are more about organisational efficiency than personal benefit or opportunity” (Bolton and Houlihan, 2009b, p. 6f.)

In many workplaces, also the knowledge-intensive ones, increases in efficiency are pursued through relentless pressure, cost-cutting and downsizing that are communicated through continuous feedback and benchmarking of workers, locations or subcontractors (or threats in that direction). After Wal-Mart, currently Amazon can probably be considered an emblem of low-road work organisation that affects both warehouse workers (Wallraff, 2014) and management. The ongoing industrial action at Amazon in Germany and internationally has certainly raised awareness of the issues. However, the low end of the “low road” is rarely open to social science investigation. Ursula Huws’ point in chapter 3.3 also concerns work organisation: Routinisation of the workplaces of one group of workers (plus their customers in the case of interactive services) requires the work of routinizing. This is the domain of newly professionalised management positions in quality management, project and knowledge management and so on – but within and across organisations, the exercises of documentation, providing information, feeding knowledge management systems and so on add to the workloads and demands on both low- and highly-skilled workers. As skills and demands increase, workers, in effect, increasingly standardise their own work – but still appear to have little say in the process. Considered in this way, the limitations of standardisation, the deficiencies of management and of technology are not necessarily good news for workers. They may hinder the comprehensive automation of tasks that are more complex than expected, but also add to workplace pressures and strains. However, the insight that technological and managerial “fixes” of standardisation cannot get rid of the complexities of processes, products and services also provides ample reasons for investigation and investment into smarter modes of work organisation that are aware of necessary skills, autonomy and quality of work and make constructive use of workers’ capabilities.

Dealing with uncertainty and collaborating within the labour process and with customers outside of it, service standardisation and rationalisation is a societally and institutionally embedded endeavour. Service companies combine standardised products and processes, tight regimentation of work, and flexible and precarious employment in the context of the respective labour markets and vocational training systems, and of societal expectations. Services themselves are transformed or innovated in order to circumvent some of the rationalisation bottlenecks of traditional service delivery. Drawing on Continental European consumer experience of the last decades, several examples come to mind: super- and then hypermarkets changed retail in the 1960sff., hamburgers gave fast food a modern US-American attractiveness that departed from traditional cuisines and eating habits, IKEA made Nordic design and the longer-established self-service culture globally accessible beyond upper-middle-class tastes, and call centres resolved the need for interactive services to have customers and service workers in one place, the more so with mobile telecommunications. Notably, notions and icons of (frequently, attractively foreign) modernity often help to enrol customers in attempts to standardise services, somewhat paradoxically “enchanting” customers into service spheres of standardisation.

This argument suggests that service work organisation is not shaped exclusively by competitive pressures and companies’ reaction to them. Alternatives to low-standard standardisation and tight regimentations are found – but in current environments of cost-cutting logics and fragmented employment, in which ongoing intensification of work is at risk of being taken for granted, the development and sustaining of virtuous circles will require extra efforts by service societies and cannot be left within managerial prerogative. Collective actors, policymakers and societies themselves will need to negotiate the roles of clients and customers and service providers, their ways of interacting on an equitable level (“auf Augenhöhe”) and their respective responsibilities. Standardisation in itself may be neutral or capable of enabling win-win configurations of improved job quality and productivity, but the distribution of its benefits and downsides needs careful consideration.
5. **SERVICE PROVISION ON THE COMPANY LEVEL**

5.1. **Research genres: Policy- and sector-oriented research**

As in chapter 4, policy-oriented literature on the company level is limited – although we could argue that through lobbying and consulting activities, companies, thinktanks and consultancies feed their strategies indirectly into European and national service policies. The policy-oriented literature tends to address service markets rather than company strategies (see chapter 2) – but partly its models and *Leitbilder* are borrowed from particular company strategies, implicitly suggesting for industrial policies to emulate business models that are deemed successful.

The impact of restructuring of both knowledge-intensive and less knowledge-intensive services has been investigated by the EU-FP6 WORKS project ([www.worksproject.be](http://www.worksproject.be), Flecker et al., 2009c; Flecker et al., 2008; Huws and Ramioul, 2006) and a considerable body of literature investigates ICT and business process outsourcing both on the global level (Taylor et al., 2014; Lynn and Salzman, 2006, 2007; D'Cruz and Noronha, 2007; Holtgrewe et al., 2009b; Howcroft and Richardson, 2012; Dossani and Kenney, 2003) and within a country (Marchington et al., 2005a; Grimshaw et al., 2015; Berrebi-Hoffmann et al., 2011; Miozzo and Grimshaw, 2005a, 2011; Longen, 2015; Boes and Kämpf, 2011).

Research on multinationals and their strategies so far chiefly focuses on manufacturing. There is some evidence on multinationals’ strategies in ICT, retail and catering (Royle and Towers, 2002b; Geppert et al., 2014; Holtgrewe and Saradavar, 2012), but generally little is known about service multinationals. David Weil, from a US point of view shows how in value chains services’ more or less subordinate or dependent position negatively affects working conditions and provides US examples for intervention and regulation (2009a; 2009b; 2014).

The literature on present and future service markets (see chapter 2) should thus be read and considered in close connection with that on service provision since current knowledge of the impact of restructuring and outsourcing is likely to be applicable to the consequences of future developments.

5.2. **Outsourcing and restructuring of services**

While the relocation and globalisation of work has been discussed since the 1970s, services have received less attention for a long time as their delivery appeared localised or national for a long time. From the 1980s onwards, there was some interest in the retail-driven restructuring of manufacturing in fashion or other consumer goods. There, retail data could be fed directly into manufacturing processes, rendering them more responsive to customer demand – Italian Benetton was a well-known example (Belussi, 1987). Also, some observers of globalisation, inequality and new technologies studied emerging “global offices” at that time, chiefly in the English-speaking countries (Huws, 1985). However, the service economy itself is associated with organisations’ (and also, households’) outsourcing of generic functions (Rubery, 2006). Interest in service outsourcing and restructuring increased during the 1990s.
Apart from the possibilities of ICT use for remote working and some self-service, liberalisation and deregulation of service industries such as telecommunications (Blutner et al., 2002; Doellgast, 2012a; Doellgast et al., 2013), postal services (Haidinger, 2012, 2015), utilities (Hermann and Flecker, 2012) or financial services (Regini et al., 1999) played a part and increased the pressure for both customer service and cost-cutting strategies. As a result of service restructuring,

“an increasing number of workers are no longer directly employed by the organization where and/or for whom they work but by third-party firms subcontracted by the lead firm, resulting in fragmented employment conditions and working conditions. By way of subcontracting, companies may tap the lower end of a segmented labour market and get access to lower-waged or lows-protected workers or may stretch activities across borders by offshoring” (Haidinger et al., 2014, p. 100).

This predominantly addresses business-to-business services on all skill levels with different degrees of space-dependence, from ICT through more or less generic business and administrative services to so-called ancillary services such as cleaning or catering that are space-dependent. Depending on the spatial, social and technological organisation of the respective value chain, outsourcing may occur locally, regionally or globally, by relocating work, moving it into owned subsidiaries or subcontracting it. Anyway, with the possible exception of knowledge-intensive specialist and discontinuous services, most often the focus is on accessing lower-cost or more flexible workforces or organisations that, of course, may also be more specialised. In addition, value chains have been described as “risk-and-flexibility transfer chains” (Frade and Darmon, 2005) through which central companies externalise volatilities and risks onto others. Hence, value chains have been found to be structured not purely by transaction cost, as institutional economics would have it, but by power differentials both of companies in the chain and of labour market segments (Sauer, 2002). Value chains thus can have varied power centres and governance structures (Gereffi et al., 2005): in the service sector we might distinguish the large retailers that set prices, standards and delivery conditions for food, fashion or other consumer-good industries (Weil, 2009a; Newsome et al., 2013, 2009); the branded providers of high-tech or knowledge-intensive services (such as telecommunications, ICT or consultancies-cum-business services) that source all kinds of knowledge-intensive product modules from both small and large providers to integrate into larger packages; or the multinational or regional providers of generic services (such as cleaning, catering, security) to companies or, not least, the public sector.

Outsourcing and restructuring is one of the ways in which the dualisation and segmentation of labour markets (see chapter 3.2.2) feeds on itself: where there are cheaper labour market segments to be accessed, companies are likely to do so to cut cost, increase competitiveness and strategic options. When services are outsourced and both clients and contractors gain experience with outsourcing, further and more outsourcing is likely to follow (Huws et al., 2009). In other words, restructuring “can become a drug where the more you do, the more you have to do to get the result” (Froud et al., 2006, p. 120). In spite of or because of this, results of restructuring moves are rarely evaluated (Lynn and Salzman, 2006), and occasionally failures are reported. Two examples from the ICT sector are worth mentioning:
The WORKS project in 2008 investigated a newly merged Swedish/US-owned IT company that develops business information systems:

“The Swedish case has had two phases of outsourcing. An initial attempt in 2005 to offshore quality assurance and maintenance to two external partners in India had very limited success. The original idea of this move was to liberate resources for development and innovation in Sweden. It fell through since the knowledge transfer turned out to require more effort than was expected originally. Documentation was actually sourced back to Sweden while the other projects are being phased out. However, in the IT crisis of 2001 some 100 people were laid off, 20 of which could be ascribed to the outsourcing move. After the merger with a US company for access to capital and the US market, a new offshoring initiative was started, this time establishing an owned subsidiary in the Philippines which is supposed to take over maintenance and quality assurance and possibly, some development tasks.” (Holtgrewe and Meil, 2008b, p. 49)

The newer instance described in chapter 4.5 is illuminating as well as the original approach of the company came close to crowdsourcing: a start-up company with roots in open-source software development aimed to develop its product, a health application for smartphones, with a spatially distributed team of freelancers with whom they had collaborated before. However, in this phase of product development, distributed working failed. One manager commented:

“Decentralised working sounds sexy (...) but it has its limits. The limits make themselves felt if you start a new product and if you want to develop something and if you do not even know what it will be in the end [...] We often altered our decisions. One week we thought that this is cool and then we talked to people and realised that it was not that great. If it is decentrally organised, this becomes hell very soon (...) This is like a startled bunch of chickens” (cited in Schönauer et al., 2013, p. 69)

The company eventually returned to conventional working at the headquarter office. It now employs local freelancers and stipulates that they work from the company’s premises for at least three days a week.

A key driver of outsourcing appears to be the financialisation of capital markets with shareholders demanding ongoing restructuring regardless of its effective productivity gains (Howcroft and Richardson, 2012; Froud et al., 2006). Indeed, these authors suggest that coping with these stakeholder demands, managers themselves may be interested in ongoing restructuring not just to improve performance but, failing that, to confuse shareholders and avoid direct comparisons of performance. This would provide an almost irresistible win-win logic to managers: either cost is cut and pressures transferred to subcontractors to improve performance, or ongoing restructuring demonstrates continuous effort to shareholders (or political stakeholders in the public sector) and blurs the evaluation of actual achievements.

In sectors such as call centres or ICT, both trade unions and employees in originating countries frequently considered initial steps of outsourcing and offshoring as protections of their own domains and to a certain extent colluded in the externalisation of cost and flexibility burdens. Indeed, often the most transactional and standardised work is outsourced first such as routine
customer contact, data entry, or software testing. For example, the first call centre services that were outsourced from German mail-order companies or Deutsche Telekom had longer and more flexible working hours than in-house services, which saved core employees having to work at unsocial hours (Arzbächer et al., 2002; Holtgrewe and Doellgast, 2012). When a large Austrian ICT company first established Eastern European subsidiaries, project managers were able to cut cost by factoring in those locations’ lower salaries and unit costs (Flecker and Schönaier, 2012). However, it soon became clear that the lines of segmentation were not stable and the “protective” effect was short-lived as core staff in the next rounds of restructuring were set to compete against the lower-cost subsidiaries or contractors (Flecker and Meil, 2010). Longen (2015) argues that the outsourcing of call centre services is looped in a similar way:

“The originating company does not simply pass on market pressures to its subcontractors or subsidiaries abroad, but loops this pressure back to its own call centre staff through ICT-supported benchmarking processes” (p. 175, translation UH).

In this way, subcontracting and outsourcing have increasingly been found to have a negative impact on employment and industrial relations systems (Doellgast and Greer, 2007; Drahokoupil, 2015), especially the Continental European ones that institutionally have been favouring some dualisation (see chapter 3.2.2). These strategies shift power further to employers, in particular to the core companies in their respective value chains that have increased options for exiting or diversifying labour relations (Haidinger et al., 2014; Holst, 2011a) and gain concessions from the organised and regulated segments of the workforce.

5.3. Outsourcing in various sectors

As services provide functions before, after or during production, they do not always easily fit into the concept of “value chains” (Haidinger et al., 2014). Nevertheless, with the idea of following a product or service through its “production”, the concept provides a more sequential and structured approach than an analysis of networks. For this reason, various services have been investigated under that perspective: call centres, back-office services, IT, postal services and retail (in association with the food industry).

Beyond the early evidence of offshored office work in data entry and other menial functions, research into call centres probably provided the most emblematic evidence of both regional or national outsourcing (Bain and Taylor, 1997; Belt et al., 2002; Holtgrewe et al., 2002; Batt et al., 2009b; Richardson and Belt, 2001) and transnational offshoring (Taylor and Bain, 2005). Indeed, the survey of the “Global Call Center Industry Project” found consistent evidence that outsourced service providers had the more problematic working conditions and job quality:

“they offered lower-discretion jobs, had higher levels of performance monitoring, made greater use of part-time and temporary workers, paid lower wages, had higher quit rates and were less likely to be covered by union contracts” (Batt et al., 2009b, p. 470).
Nevertheless, call centre researchers D'Cruz and Noronha (2007; 2006) and Vaidyanathan (2012) argue that in call centres as in other services, offshored is not necessarily deskill as it offers the possibility of accessing qualified and professional work at lower cost – and that professionalism (and its frustrations) rather than standardisation provide focal points for the collective identities of call centre workers in India. As outsourcing is mostly associated with tighter regimentation of jobs or with the transfer of market or project pressures to service providers (see chapter 6), in outsourced configurations skilled workers may find themselves in deskill and regimented jobs (Batt et al., 2006).

However, call centres have not been recast as a global industry. More recent studies show that transnationalisation is limited and follows patterns of historical and cultural proximity (Holtgrewe et al., 2009b; Longen, 2015). In the German-speaking countries, regional relocation and “escape” from sectoral collective agreements still appear to be dominant, together with some automation and substitution of call centre services by consumer self-service (Holst, 2011b; Longen, 2015). Still, offshoring or nearshoring is going on and probably includes other business process outsourcing, for example from German- or French-speaking countries to Romania (cf. Kirov and Thill, 2015 for the banking sector), the West Balkan countries or countries around the Mediterranean. Unfortunately, currently there is little research conducted into the regional and language-related varieties of offshored services. Recently, some research in linguistics and communications studies takes an interest in multi-lingual call centres (Duchêne, 2009; Hultgren, 2011).

In recent years, research interest in call centres has been followed by more research in business-process outsourcing which addresses back-office operations (Gospel and Sako, 2010). This is often in close connection with the outsourcing of IT services (Berrebi-Hoffmann et al., 2011; Miozzo and Grimshaw, 2005b, 2011). Together with the Manchester research group (Marchington et al., 2005b), the WORKS project was among the first to pay attention to the outsourcing of both IT services and customer or citizen contact from the public sector, through subcontracting or the establishment of public-private partnerships (Flecker, 2008a; Dunkel and Schönauer, 2008; Schönauer and Huws, 2008; Flecker, 2008b). Howcroft and Richardson (2012) pursue the interaction of standardisation and relocation in “shared service centres” in the Manchester area and beyond.

The ICT and software development and services sector is another, partly overlapping segment of interest for outsourcing and restructuring. It has also shown interrelated processes of standardisation and upgrading of outsourced tasks with subcontractors “moving up the value chain” (Dossani and Kenney, 2003). Initially, from the 1990s onwards, simple processes or pieces of the product were outsourced or offshored such as data maintenance or coding tasks. India, with its relatively cheap, qualified labour force, emerged as a prime location, followed soon by other emerging economies such as Russia, Vietnam and the Central and Eastern European countries (Huws and Flecker, 2004; Holtgrewe and Meil, 2008b). Increasingly, larger parts of the software-development process began to be outsourced or offshored as companies developed the expertise to manage distributed work processes and developed new functions and work roles for liaison and coordination between organisations (Holtgrewe, 2012;
Marchington et al., 2005a). Offshoring has become increasingly strategical and systemic (Boes and Kämpf, 2011), with management strategies pursuing cost savings, proximity to customers, skill availability and innovative capacities in a global context. In this context, processes are standardised and teams increasingly collaborate virtually. While the top-of-the-value chain functions of R&D, innovation and systems integration were traditionally assumed to be core competencies that would remain in the originating countries of multinationals, they are no longer immune to offshoring. Especially for new recruitment in these functions, companies appear to turn to the newer and cheaper locations. Simultaneously, Indian service providers expanded rapidly and developed into large IT and business process outsourcing multinationals. Increasingly, these subcontractors do their own offshoring and in recent years have even been backshoring work to Europe or the US to be closer to their clients (Holtgrewe, 2014; Boes and Kämpf, 2011).

This research into immaterial, space-independent services has discovered a generic process of outsourcing: certain parts of the labour process are modularised and standardised, often with the support of specialised consultancies that may offer outsourced services themselves. Then the services are centralised in distinct units or cost centres that charge their services to the originating organisation. The relationship is governed through service-level agreements which allow the originating organisation (now the client) to monitor the contractor’s performance. Shared service centres then aim to further standardise and deskill work in order to replace the skilled staff who had been transferred with cheaper recruits – although they often walk a thin line between deskilling and retaining necessary skills and knowledge. Such service centres may in a further step offer their services to other organisations, remain captive and owned by their mother organisation, or they may further outsource parts of their services to third parties – and benchmark their own services against these. In a spatial dimension, clusters of shared service centres have emerged and shifted in Europe:

“a first wave in the late 1990s, focusing on Amsterdam and London; a second wave in Manchester, Barcelona and Cork; and a third wave centring on Prague, Budapest and Krakow” (Howcroft and Richardson, 2012, p. 121),

and currently, South Eastern Europe (Kirov and Thill, 2015). IT services have been investigated by Berrebi-Hoffmann et al.; and Miozzo and Grimshaw (2011; 2011). Companies such as EDS, IBM, Accenture, German T-Systems or BT take over both IT services and the respective staff from their clients (cf. Dahlmann, 2008). Miozzo and Grimshaw (2011) describe how companies in this way first access local and client-specific knowledge, but on the other hand have developed standardised processes and routines of learning and project management that are used across countries and outsourcing contracts. This enables outsourcing specialists to flexibly deploy staff, increase productivity and benchmark performance, although in IT, unlike other business processes, the scope for deskilling appears to be lower.

Another body of literature on restructuring, mostly with a background in political economy, addresses the impact of liberalisation and privatisation of services in the general interest, that
is, the former public sector. The EU-FP6-funded PIQUE project\textsuperscript{15} conducted research in this field (Hermann and Flecker, 2012; Flecker and Hermann, 2011), as did the investigators of telecommunications presented in chapter 1.6.2, NGOs and activists from a globalisation angle (Finger et al., 2007; Attac Deutschland, 2004) and also, researchers close to unions representing the public and private sector (Bieling et al., 2008; Brandt et al., 2008a; Greer et al., 2013; Keune et al., 2008; Watts, 2004; Drahokoupil, 2015; Fritz, 2015). Clifton and Díaz-Fuentes (2008; 2009) show how former public service providers in postal services, telecommunications and utilities turn into distinct types of multinational companies with more or less aggressive strategies of transnationalisation. Generally, the impact of liberalisation and privatisation on work is found to be negative with losses in employment, downsizing and increases in lower-paid and more precarious work (Grimshaw et al., 2015; Hermann and Flecker, 2012). This is also due to the weakening of interest representation in new providers and concession bargaining in incumbent ones (cf. chapter 1.6.2). An early summary of the PIQUE project is still valid:

"Reactions [to liberalisation, UH] included mergers and acquisitions, investments outside their home markets and the diversification of supply; the diversification of customer relations, including new pricing policies that favour some groups of customers over others; a reduction of production costs through concentration, outsourcing and the introduction of new technology; a reduction of employment and the payment of lower wages (through lower wages for new employees, the creation of independent subsidiaries and outsourcing) as well as an intensification of work; training has been stepped up for some groups of workers while it has been cut for others" (Flecker et al., 2009a, p. 36).

On the other hand, there is distinct variation by both countries and sectors: utilities generally retain favourable working conditions and conduct their downsizing mostly by voluntary means. Telecommunications are faced with labour market dualisation, multi-tiered collective agreements and wage systems (see chapter 5.2). Labour-intensive postal services face the most fragmentation of employment, relying increasingly on subcontracting, precarious and self-employed labour as both the PIQUE project and the SODIPER comparative project\textsuperscript{16} on postal services in Germany, Austria, Hungary and the Czech Republic showed (Haidinger, 2012; Hermann et al., 2008b; Brandt and Hermann, 2012; Haidinger et al., 2014). In public and municipal administration or health and the social sector, variation is even greater. Social dumping and fragmentation of work also occur, but sometimes are associated with some skill upgrading and selective professionalization (Mori, 2015; Böhlke et al., 2009; Greer et al., 2013; Papouschek and Böhlke, 2008). Possibilities of improvements in job quality are discussed increasingly through ways of involving clients in the shaping and negotiating of labour relations. Where the public sector is involved, standards for public procurement (Jaehrling, 2014; Jaehrling et al., 2015) and also the involvement of citizens as customers (Kessler and Bach, 2011) play a part.

\textsuperscript{15} http://www.pique.at/reports/publications.html
\textsuperscript{16} http://www.sodiper.forba.at/
5.4. Strategies regarding services and products: customisation, servitisation and productisation

Company strategies in delivering services also address the shaping of the service in question itself. As services consist in processes and interactions as much as in “products”, company strategies have been found to run in both directions: IBM and other high-tech firms aim to “servitise” products, provide services and solutions rather than delivering products (cf. chapter 2), and knowledge-intensive manufacturers follow suit to escape the “commodity traps” of cost-based competition and decreasing profit margins that open up when services are globalised and standardised (Zysman and Kenney, 2015). In that case, markets may develop in which competition increasingly takes place over price rather than quality or innovation. This puts pressure on profit margins and also on wages and possibly job quality. Vice versa, by “servitising” products, offering integrated “solutions” to clients’ problems, companies aim to establish longer-term relationships with clients, build up knowledge in collaboration with them, and add higher value to their “products”. This is mirrored in the paradigm of customer “co-production”, networked and open innovation (Tuomi, 2002; Hippel, 2005), concepts that have been absorbed in the innovation-oriented angle on service markets (see chapter 2).

Both the service business literature and some sociological approaches have pointed out that standardisation and economies of scale are not the only ways to produce services and make a profit. Customisation means the individualised creation of a service in close, real-time interaction with the customer. It follows a logic that is not entirely rational in a conventional economic sense (see chapter 4.3) but a “logic of luxury”, of customers getting individual wants satisfied, being delighted and pampered (Sundbo, 2002). In customised services,

“the service provider is much more involved in the social and psychic life of the buyer and the border between the external market sphere and the internal personal sphere is being blurred” (Sundbo, 2002).

This is not just the domain of tourism and entertainment, that is the so-called “experience industries” (Sundbo and Sørensen, 2013), but has a specific business logic that rests on customer demand and expectations. Successful customisation allows service companies to increase prices and also to expand the person-hours sold. It can breed further service and contribute to the “enchantment” and retention of customers (Korczynski, 2002). Indeed, customisation in this sense might provide responses to the “commodity traps” (Zysman and Kenney, 2015) of standardised and industrialised service production in both the business-to-consumer segment, where experiences may be created and sold and the business-to-business segment which is more likely to provide solutions.

The other mode of service delivery, productisation or standardisation, is often pursued in lower-valued market segments and also in the public sector. It consists in service providers standardising their offers and rendering their provision scalable. It has been analysed under headings of “McDonaldization” (Ritzer, 1993), and both Ritzer and Voswinkel (2000) have pointed out that customers may indeed have an interest of their own in standardised services if they save time or provide reliability in complex or time-pressed contexts.
These strategies appear contradictory but are probably articulated in cycles or loops of standardisation and differentiation: services may be productified in close interactions with customers themselves or through the use of customer-generated data. Then “service products” or modules are bundled into systemic solutions as service providers increase their knowledge of both productisation, servitisation and their respective pitfalls. Organisations have also been observed to pursue both strategies simultaneously. Providing consumer or small business clients with standardised and “productified” services and offering complex solutions to larger customers became a common strategy in telecommunications soon after liberalisation and has also been found in the financial services (Blutner et al., 2000; Batt, 2000; Möll, 2003).

Nevertheless, productisation may erode services’ own bases for value creation which — considering customer co-production — lies in the management of situational uncertainty in collaboration with customers (Jacobsen, 2005). Productified services face the problem of how to retain customers or increase value-added: self-service banking or retail must rely on advertising rather than the “up- or cross-selling” strategies that competent salespeople or customer advisors employ. Substituting such representatives by web-based recommender systems or the mobilisation of “communities” for support and marketing may render the service less controllable and more exposed to fashions or reputation damage. The same applies to support by the service provider. Obviously, quasi-monopoly services can “outsource” certain parts of the service to “the community” more easily if customers are locked in by high costs or limited alternatives of changing their provider.

Productisation/standardisation and customisation have both their respective advantages and disadvantages and are represented differently in various service and market segments. Sundbo (2002) suggests a third model which might be able to combine standardisation and customisation:

“Even if the service product is individual, the process and input elements could be standard and vice versa. The product may be combined by several standard elements and the process may be combined by several standard procedures; thus, the product and the delivery process could be different for different customers.” (Sundbo, 2002, p. 97)

The result is called “modulisation”:

“The firm will sell high-priced customised services and lower the cost through standardised production procedures” (Sundbo, 2002, p. 104).

It will need to still convince customers that they are receiving individualised services – or to negotiate an adequate compromise of price and quality. In 2002, Sundbo argued that IT could significantly contribute to effective modulising strategies and observed such strategies particularly in larger businesses in Denmark.

With productisation or commodification, both markets and power relations have been shown to shift between subsectors. The telecommunications and ICT sector provide evidence for that.
Pon et al. (2015), Kushida (2015) and Kushida et al. (2015) argue that the current global dominance of the US-based disruptive and networked companies with roots in the IT sector such as Apple, Google, or CISCO in the entire ICT sector has been a result of the respective paths of telecommunications liberalisation in Europe, Japan and the US. US antitrust policy against AT&T in combination with massive public investment into the Internet favoured start-up IT companies with somewhat disruptive platform business models (cf. Mazzucato, 2013). Meanwhile, formerly dominant European and Japanese telecommunications equipment manufacturers and carriers fell into various commodity traps as their abilities to retain customers and offer them value-added services eroded and productisation was accelerated by the new Chinese and US competitors.

Currently, we are observing a range of strategies and business models in this vein that are more or less disruptive, radical, or incremental in their stated intentions and their consequences. “Disruptive” strategies are represented by the emerging platform companies and start-ups. They attract enormous investments and profit expectations for building online platforms that aim to shift whole sectors of economic activity and paid work onto virtual marketplaces. This adds another layer to service business models: their “service” is to coordinate the activity in a cheap, modularised form and, in effect, to shift risk further onto participants while utilising the data generated in the process for further business: “get someone else to do something on your server”, and take no risk in the process, is the strategy according to Jaron Lanier (2013, p. 180). Transport company “Uber” or accommodation intermediary “Airbnb” are the notorious examples that are challenging sector associations and city councils in Europe (Maselli and Giuli, 2015; Isaac, 2014). These companies do not just offer access to services that are provided cheaply outside of the domain of paid employment (see chapter 3.3.3). To do so, they explore the limitations of systems of regulation and aim to change them in their favour – the boundaries between innovation and violation become permeable, and success and reputation, in line with some libertarian sense of mission, become self-justifying.

Jaron Lanier (2013) points out how this type of business model has social and cultural roots in the emphatically libertarian open source culture that characterises Silicon Valley and other hotspots of innovation:

“The illusion that everything is getting so cheap that it is practically free sets up the political and economic conditions for cartels exploiting whatever isn’t quite that way” (p. 18),

in effect eroding the very middle or service classes that traditionally make their living from information and communication, culture, education etc. “Get educated for free now! But don’t plan on a job as an educator!” (Lanier, 2013, p. 97).

Considered in this way, platforms take the dialectic of productisation and servitisation one step further. They allow the customer access to a bundle of generic service modules that are

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17 This group of authors are part of a collaboration of the Berkeley Roundtable on the International Economy and Finnish ETLA, the Research Institute of the Finnish Economy in a series of political-economical analyses of the ICT sector.
controlled and shaped by system integrators or platform providers in a standardised way but are provided by independent contractors. Platforms tend to be virtual and eminently scalable through network effects and productisation – up until “winner take all” markets or actually, new monopolies emerge. Their providers limit or indeed shift risk and generate a continuous “rent” or share of customers’, subcontractors’ and other participants’ revenues. Beyond this, platforms are (increasingly) able to build further services on the amount and analysis of data generated by their own processes or extracted from customers and participants. This is not just a virtual or future “big data” phenomenon but well-known in the present. Take, for example, the current large retail chains that manage to dominate their value chains and govern them through just-in-time monitoring of sales figures and feedback, and tailor pricing and special offers to customers. However, actual configurations of platforms, their degree of ubiquity or specificity, divisions of labour and the locus of control between sectors and segments, appear to be uncertain in many areas. In mobile telecommunications, Pon et al. (2015) see a shift of strategic bottlenecks from the operating systems of smartphone devices (iOS vs Android vs the rest) to “the cloud”, while cloud providers pursue different models of more or less openness or “walled gardens”. In the Finnish report to the Ministry of Employment and the Economy Paajanen and Vainionkulma-Immonen (2015) observe that currently, US-based companies with tremendous market capitalisation appear to dominate platform business models:

“The worst case scenario is that in the long run the whole society will be outsourced; what if in the future the whole Finnish society is operated on Google platforms” (Paajanen and Vainionkulma-Immonen, 2015, p. 119).

Yet they see space for initiatives for example to reiterate the Nokia success through a radically innovative public-private partnership for export-oriented and domestic digital services in Finland.

In a similar, albeit more incremental vein in line with the country’s industry structure, the German “Smart Services” report (acatech, 2015) promotes the servitisation of high-tech manufacturing and agriculture and suggests upgrades of services in energy (smart grids), health and other services into “new digital ecosystems” (p. 11). Such platforms according to the authors should be provided by German and European companies, be they service providers or manufacturers themselves. They could also provide increased opportunities and market access for SMEs, integrate related services in for example, finance, training and education, security and identity management and so on, and of course, provide analytic and business insight services from big data on top,

“data-driven business models that configure customised services for individual users using a wide array of data sources” (p. 41).

In terms invented by network providers Cisco and HP, “Everything as a service”. Productivity increases are estimated at some 30% and platform control is regarded as vital: “who controls service platforms gains control over the value chain” (p. 18). The consultancy Accenture sees
German companies among the digital frontrunners in the servitising of manufacturing systems engineering, automotive and logistics.

Indeed, there is evidence of some real-life networks for delivery of energy, health or other complex services in collaboration of service providers, municipalities and professions. Some of them are regional and (partly) non-scalable examples. However, concepts increasingly travel with some public support (cf. for example the German indiger project www.indiger.net on regional collaborative delivery of health services). It appears possible that in some service segments networks that are consciously embedded in local and institutional configurations can provide alternatives to the large-scale platforms that provide standardised services and have been shown in chapter Error! Reference source not found. to intensify competition.

5.5. Conclusions
This chapter has investigated the strategies that companies employ to cut cost and access new markets for their products or for labour and skills. Indeed, the social science and labour-process oriented literature consistently finds that outsourcing and restructuring are centrally motivated by access to cheaper labour and new labour markets, either in line with some deskillling and standardisation of work or, in the more knowledge-intensive services such as IT or publishing, with more indirect control. While the macro-economic impact of service internationalisation and liberalisation is not easily identifiable (see chapter 2), the impact for workers and the quality of work has been negative in most instances where company cases were investigated, with possible exceptions of specialist niches in knowledge-intensive ICT services. This is somewhat different from the evidence from manufacturing (Flecker et al., 2008; Flecker, 2012) – in services, apparently outsourcing and offshoring are more closely associated with overall standardisation and a devaluation of skill and decline of working conditions whereas in manufacturing it is often the more standardised jobs that are relocated with skill upgrades in the originating country. High-quality work appears to be difficult to retain when services are outsourced, and even the higher-skilled face increased pressures and staffing shortages. From the worker point of view then, increases in service productivity may not be achieved through improvements and greater efficiency in products and processes, but often enough through sheer work intensification.

So far, outsourcing appears to be associated with strategies of productisation or modulisation that, in turn, do not favour improvements in the quality of work. Visions of servitisation may open up perspectives for alternative, more context-sensitive and innovative company strategies. Here, customers are enlisted in economies that address their wants, enlist their contributions to innovation and possibly, remain open to the expressive, subjective side of innovation. Again, this has its own risks of manipulation and rent-seeking by companies. With the experience of social web and digital platforms that override and disrupt the conventional economy and get users to work “for free” or for pittances, there are good reasons for being sceptic towards some business models that are certainly innovative and open to user innovations but do not necessarily distribute gains fairly between workers, customers and capital.
However, the variation in the literature suggests that the very heterogeneity of services provides solutions rather than problems. There may be a positive potential of heterogeneous actors for context-sensitive solutions and services. The variety of actual and potential platform actors in this field ranges from the US-based quasi-monopolies, through key actors in manufacturing value chains to bottom-up networks of social and service innovation in “green” sectors, utilities, health or the creative industries (Sundbo and Toivonen, 2011). Cultivating that variety and retaining different “scales” of business strategies may be a more adequate and less risky policy approach than the current European emphasis on tradable and scalable services.
6. CONCLUSIONS

This report has compiled different bodies of research with varied disciplinary and paradigmatic backgrounds that range from economics, management and innovation studies and technological forecasting to political economy and the sociology of work. Service markets, labour markets, work organisation and service provision on the company level are addressed by different disciplines and subdisciplines. They are also addressed in different policy arenas of employment, enterprise, innovation and digitalisation, or consumer protection. However, the amount of cross-references in this report shows that these arenas are interrelated and shape one another. This logic of interrelations goes well beyond a linear idea of an “impact” of general trends such as technology, demographic or social change on institutions, markets and organisations. Frequently, research findings from one angle raise questions for developments in others or point at policy challenges.

In general, the questions raised by Bosch and Lehndorff in their introduction to the NESY project’s edited volume remain current:

- „Must we really accept greater social inequality in order to extend the service sector or is the so-called ‘high road’ development path a real option?"
- Does an increase in service activities necessarily go hand in hand with the destandardisation or even polarisation of employment and working conditions?
- Are service societies and service work converging towards a single, uniform model?” (Bosch and Lehndorff, 2005a, p. 3).

This review of research ten years later suggests the following answers:

- So far, the extension of the service sector has increased social inequality, as services tend to develop more polarised labour markets than manufacturing and policies fail to counter these developments – especially when the focus is on marketised, private sector services and when the public sector embarks on cost-cutting strategies. The high road is an option but needs dedicated efforts by companies, the state, customers and stakeholders to be developed beyond flagship companies.

- Increases in flexible and atypical employment go hand-in-hand with service expansion, but can be shaped in different ways that improve benefits for workers and companies. This requires some adaptation of social security and welfare state institutions to render them more inclusive in the face of that diversity.

- Although there are some convergent trends and tendencies, service societies remain varied. Some convergence in the sense of greater inclusivity and improvements in job quality would certainly be desirable, but social progress in the direction of inclusive, accessible and high-quality services requires strong and creative institutions of regulation and innovation.
Table 6.1: Mutual effects of service dimensions on one another

<table>
<thead>
<tr>
<th>Service markets</th>
<th>Labour markets</th>
<th>Work organisation</th>
<th>Service provision on the company level</th>
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- Source: author
Table 6.1 presents an overview of the interrelations between different aspects of services that were explored in chapters 2-5. Cells in grey summarise developments on service markets, labour markets etc. that were found in each chapter. Then each white cell contains the likely effects of the developments in the respective column on those in the respective row. Obviously, interrelated and recursive developments cannot be presented in the matrix directly, but subjects such as high-road or low-road services, servitisation or productisation, vicious or virtuous circles show up in several cells.

### 6.1. Service markets

We have seen in chapter 3 that the investigation of service markets in Europe and the policies related to them concentrates on liberalisation, tradable and scalable services. Growth is chiefly expected from the knowledge-intensive business services, and from productivity increases across the board, whereas social and personal services are expected to contribute to employment unless austerity policies and lacks in demand stunt their development. This research angle is in line with the Commission’s policy of liberalisation, but overlooks some of the specificities of the service sector. The heterogeneity of services and the persistent share of small and tiny businesses in both the knowledge-intensive and less-knowledge intensive services suggest that neither smallness nor local reach can be simply interpreted as “room for improvement” in scale or tradability. If services address and bridge uncertainty (Jacobsen, 2005), by solving problems and offering experiences (Sundbo, 2002), heterogeneity is a feature and a resource of the sector that contributes to service innovation and quality.

This is obvious in business-to-consumer services where the sampling of variety in shopping, entertainment or hospitality is part of the pleasure. Indeed, this variety drives other services such as tourism and travel. Liberalisation increases consumer variety and choice only partly. It may result in a standardisation of services and the establishment of markets that are driven by cost-based competition or by regulation arbitrage: Both strategies may enhance productivity while undermining other business models or potential innovations. Quite simply, if this variety is undermined, spaces for quality- or innovation-based competition are at risk. Platform-driven service innovations take this mechanism one step further as they favour winner-takes-all markets (in fact, monopolies) in which dominant players are capable of disrupting existing markets and the institutions that govern them. Interestingly and quite correctly, national policy strategies aiming at “smart services” (acatech, 2015; Ministry of Employment and the Economy, 2015) emphasise innovation over liberalisation and put greater hope into the more specialised or localised networks for service delivery.

Cost-driven markets then are likely to favour standardisation and “productisation” of services, a strategy that opens up the “commodity traps” described by Zysman and Kenney (2015) – standardised services may be restructured, sold, deskilled, shifted into less regulated sectors or relocated if they are space-independent. “Races to the bottom” with regard to employment and working conditions then are likely. They have been shown to fragment labour markets, concentrate deteriorations on new or vulnerable groups of workers, and pitch labour market segments and workforces against one another. With regard to work organisation, we have
seen that restructuring and outsourcing are self-enhancing processes as companies gain experience on this path. It is possible that outsourced service providers develop expertise and innovations themselves, but so far it appears that there are few companies that pursue high-road strategies with a positive impact on workers in the cost-competitive saturated markets of early-industrialising countries.

6.2. Labour markets

In European labour markets we have seen that polarisation is occurring but it is embedded with national policies and regimes that still are capable of mitigating market-driven developments – if and when they address the problem and retain political coalitions that pay attention to it. Nevertheless, we are seeing increased de-standardisation of employment with increases of part-time, marginal, and fixed-term employment and increased variation of working times, and with some polarisation of wages. It appears that women and other newcomers to labour markets such as immigrants or young people are less likely to reap the benefits of security and income that previous cohorts could muster, although women continue to increase their labour market participation and skill levels.

We find accumulations of problematic features of job quality in the low-wage segments and increasing skill levels of workforces, which, however, increase labour market problems for those with lower or less valued skills. However, it is possible (and with current youth unemployment, likely) that the wage premiums on skills and education for younger cohorts are decreasing (Fernández-Macías and Hurley, 2014), which may put their human capital and employment perspectives at risk. Crowding-out of lower-qualified groups or further fragmentation of employment in the highly-skilled “precariat” are distinct possibilities.

Labour market and income polarisation and declines in job quality and wages for the young may have repercussions on service markets (which as we have seen, contribute to these effects): It decreases the demand for services among lower-income groups and locks segments of consumers into the low-price and -cost service markets. Consequently, impoverished service workers and their families have reduced access to services that enhance quality of life, solve problems and may increase their resources and capabilities for handling problematic work situations, such as health, recreation, social or training services – unless public or subsidised service offers provide support. At the other end of the income spectrum, well-paid inhabitants of “lovely” service jobs may enrol into a kind of neo-feudalism, affording domestic and personal services to compensate for the extended working hours of both women and men, or for the lack of public services in care for the elderly and the young. Domestic and personal services provide labour market access for certain groups of vulnerable and low-skilled workers. However, current working conditions in these sectors do not suggest sustainable long-term options that can compensate for the limitations of high-productivity services in generating employment. It appears that especially Continental and Southern/Eastern welfare states need to find ways of offering social security to groups of workers that have limited access to “normal” employment and to render their employment systems more inclusive. Not doing so
amounts to increased competition between labour market segments with likely social and political repercussions of populism and social unrest.

The ongoing fragmentation of employment is also likely to have a negative impact on work organisation. Where labour turnover is high, large headcounts of marginal part-time workers need to be co-ordinated or workers perform similar work under unequal conditions. Tight regimentation and control is likely, and regimented workplaces will contribute to declining job quality. This configuration could lock companies and their business models into vicious circles of standardisation at a low-quality level, low-skilled service provision and low-cost competition. If workers’ skills increase further, a more optimistic scenario (suggested by CEDEFOP 2012) could have them “craft” and improve their own jobs, discover enhancements of productivity and quality, and thus draw their employers into workplace and service innovations. This scenario would require institutional and political support that combines skill upgrading and professionalisation with improved accessibility of training and recognition of experience-based learning and informal skills.

6.3. Work organisation

We have seen that standardisation of services and work processes is a general trend in services although it is by definition incomplete as customer demands and expectations enter into the process. Services are about doing the standardising and routinising as well as standardisation and routinisation. While this argument implies that automation is a slower and more difficult process than technology-driven visions suggest, it may not be good news for workers. The limitations of standardised collaboration among themselves or with customers may add to their workloads as well as the addition of bureaucratic routines to their jobs: documentation tasks, knowledge and project management systems and so on. Partly, this type of incomplete standardisation may feed into new service markets and business opportunities: doing the routinising for other companies is the business of consultancies that may offer their own shared services, and the modulising and aggregating of crowdsourced tasks is also a distinct function (Lehdonvirta et al., 2015; Lehdonvirta and Ernkvist, 2011). This research evidence suggests that outsourced markets for standardised services are not necessarily global. Language and cultural proximity or shared professional backgrounds still play a part, as a shared understanding of skills and tasks can fill the gaps in the routinisation of work and compensate for deficient management.

Here is the space for collective actors, institutions and entrepreneurs that promote workplace innovation and innovative forms of work organisation. Such models offer workers more “responsible autonomy” and support workplace learning and creativity that are expected to feed into the delivery of higher-quality services. Standards of service levels and clarity of expectations and processes that is communicated to customers can be resources in that process. The straightforward argument is: if service work organisation cannot get rid of the complexities of service work, it may be better to tackle them directly by using and developing workers’ skills, insight and knowledge than to waste workers’ capabilities by having them work “against the system” or around inadequate procedures and tools.
6.4. Service provision on the company level

On the level of company strategies of service provision we have seen increasingly complex divisions of labour across companies. Partly, the expansion of the service sector itself is a result of the outsourcing of generic service functions from companies. On the one hand, outsourcing renders a “productisation” and standardisation of services more likely. On the other hand, companies have been shown to “servitise” their products in the IBM vein, offering solutions and aggregations of complex products and other services, or providing experiences. Platform business models that outsource the entire actual work and act as intermediaries go one step further and turn labour markets into business opportunities in a new way, challenging conventional notions of labour and work.

Authors of the Finnish report to the Finnish Ministry of Employment and the Economy are quite aware of some of the contradictions:

“In traditional industry, digitalisation and services are often the only way for the business activities to be profitable as competition reduces the profits of device manufacturing. New digital business models increasingly often lead to the winner taking it all. In such situations, it is important to be prepared for the fact that structural changes in service business may be much more dramatic than those in the manufacturing industry. The fates of individual enterprises may vary greatly within a sector, depending on how well they are able to adapt to the changes ahead” (Ministry of Employment and the Economy, 2015, p. 21).

Again, the distinction of a “high road” and a “low road” of service provision comes to mind, but a dualistic model would be too simple. Standardisation is not necessarily associated with the “low road” or servitisation and customer-specific problem-solving with a “high road”. The definition of standardised products may have its place in the delivery of complex services (Sundbo, 2002), and metrics of service levels and performance standards can be beneficial in structuring expectations of customers, managers and workers. In this way, smart and participatory modes of standardisation can function as resources for high-quality services. Outsourcing in this sense of specialisation and professionalization so far is possible but rare in non-knowledge-intensive services. However, servitisation and promises of customer-specific problem-solving and excellence may lead to “boundaryless work” by professionals on customers’ behalf as is well known from software services or consultancies (Eichmann, 2006). Outsourcing and accessing cheaper and more precarious and flexible workforces has frequently been found to compensate for management problems and deficiencies in work organisation – in ways that add to the workload of outsourced workers.

Of course, it is possible that skilled workers and innovative companies provide high-quality specialist services to businesses and consumers to everyone’s benefit. Yet, this exploration of the mutual effects of developments in service markets, labour markets, work organisation and company service provision shows that apart from skill improvements, favourable developments for workers can hardly be expected from market and sectoral developments only. Such improvements require interest representation and institutional support, which in
the more heterogeneous and fragmented contexts of the service sector are not always easy to come by.

6.5.  **Institutions and policies**

Whenever service employment, work organisation and company strategies are compared internationally, one general and crucial finding is that service societies still are varied. This means that alternative policies are possible. With regard to changes in service markets, or in service productivity and the sectoral composition and change of the service sector, the evidence presented in chapter 2 is less clear with regard to different institutions. Some changes appear to be quite country-specific, such as Finnish ICT production or the expansion of market services in the UK, and path-dependencies may be quite sector-specific and contingent on previous patterns of regulation and liberalisation (Kushida, 2015). The discovery of patterns of developments in service productivity, employment, skill levels and quality of jobs would require a larger, theory-led compilation of data that are so far separate.

Nevertheless, with regard to labour and workers, employment and work, “better” and “worse” arrangements are clearly distinguishable. Favourable arrangements have inclusive social partnerships that extend labour standards to the more marginal and atypical forms of service employment, and coordinate collective bargaining to limit labour market polarisation. In countries with this type of institutions, the public sector also has traditionally taken a proactive role in employment and provision of social and infrastructural services. Like knowledge-intensive market services, it also provides services that enhance the productivity of other sectors through education, research, health and wellbeing. We are finding some increasing inequalities in Nordic countries as well, and also, possibly, decreases in political support for traditional social-democratic policies (Wren and Rehm, 2013; Barnes, 2013) – but in several European countries, possibly, some renewal. However, inclusive collective bargaining and a proactive role of the state does not need to be oriented back to the 1970’s, if public and social investment develop and update their capacities for social progress and innovation in close connection with service innovation. Indeed, welfare states, social security systems, vocational training systems and public procurement need to take the heterogeneous and varied “nature” of services into account and make decided efforts to adapt themselves to the realities of more than 70% of working people. In this way, the Nordic strengths in welfare policy, inclusive employment and service research appear to complement one another and provide mutual resources for innovation. Service cultures of quality, skill, equality, efficiency and innovation appear to be capable of extending across both the private and public sector, and the sphere of “alternative” regional or socio-economic networks, and mutual learning is urgent.

6.6.  **The future and the present**

With the attention given to the future of services and indeed, of work, in current debates, the exercise of relating research into markets, technologies and businesses with research into labour markets and labour processes promises a sharpening of the picture. The literature
describing and exploring “the future” tends to focus on disruptive and dramatic changes and to suggest that this future is somehow separated from the present. Two different conclusions can be drawn from this: industrialist approaches in this genre have a more or less explicit subtext of adaptation and lack of alternatives that suggests that “the future” is shaped outside of contemporary European society and that societies need to adapt themselves to its arrival by skill upgrading, increasing their openness to innovation, entrepreneurship and so on. “Critical” approaches tend to take the dramatic outlook on board and treat it as something to struggle against. Examples are the public reactions to IBM’s “Liquid” programme or to the Frey and Osborne (2013) study. There is not necessarily anything wrong with many of the policy suggestions of either approach, but the general outlook is somewhat apolitical. It is worth reminding ourselves that contemporary societies can and must shape their futures in the present. Indeed, the analysis of present developments can sensitise us to possible intended and unintended consequences of future changes, and to ways of preventing or furthering them.

In these fields, research into actual, contemporary implementations of virtual project management, crowdsourcing, digitised and data-driven human resource management, and also into the platforms and intermediaries of real-life services or “smart” logistics services provides insight into questions of work organisation, employment, customer involvement and societal impact: the coordination needs and hindrances of virtual collaborations are unlikely to be solved technologically, and will slow down automation. Virtual collaboration is thus unlikely to open up “global”, purely transactional service markets everywhere. It is likely that collaboration with established contacts and social and cultural proximity continue to play a part.

Again, the social-scientific view on services shows that European societies cannot expect technological change, liberalisation and productivity increases to deliver welfare and sustainable quality of work and life by themselves. The uncertainties of human interaction, of complex processes of value creation and the similarly complex integration of modern societies require smart, circumspect work and collaboration in order to function. It is for this reason that more than 70% of working Europeans work in services. For the same reason, deskilling, work intensification, labour market polarisation and the vicious circles of poor-quality work and service put those potentials of workers and their customers at risk that are needed to handle and manage the social and technological complexities of modern societies.

If services by definition and empirical insight cannot get rid of uncertainty, and are intertwined with the economy and the society (or indeed, do the intertwining of both sides), service policies might as well aim to get it right from the start: support actors that pursue virtuous circles of quality of work and service, embrace the variety that service industries offer and their different scales of reach, the local, the regional, national and global, encourage heterogeneous networks that combine knowledge, allow voice and balance competition and collaboration, involve multiple actors, segments and standpoints in the shaping of European service societies.
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