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**Industrial Relations and Social
Dialogue in the Age of Collaborative
Economy (IRSDACE)**

National Report Germany

IZA

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Industrial Relations and Social Dialogue in the Age of Collaborative Economy (IRSDACE) (second draft)

National Report Germany

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1 Introduction

In Germany, a discrepancy appears evident between the attention paid to online platforms within the public discourse and the media on the one hand and the actual empirical relevance of this phenomenon on the other hand. A range of recent studies¹ suggest a negligible incidence² of platform work and ‘crowdwork’, a term frequently used as an encompassing concept in the German debate. However, expecting an increased significance of platform work in certain sectors (e.g. information and communication technologies, software development, local services to households etc.) appears to be a plausible scenario for the near future. Despite significant barriers in the areas of labour law and a range of socio-political issues, the underlying benefits in terms of a better matching of supply and demand and the rapid availability of information on market opportunities are apparent. Virtual market places both provide the basis for new service formats and generate a positive effect on both demand and employment. Nonetheless, recent business surveys indicate a gradual growth of the willingness to use crowdwork elements expanding from media and IT sectors to the manufacturing sector, particularly being witnessed in smaller businesses.³

Most notably, the progressing digitisation will tend to contribute to the increasing detachment of the place of work from the tasks involved, thus creating new demands and perspectives for virtual forms of employment. At the same time, there is some reason to assume that technology-oriented platform work itself as well as digitisation effects will dispense with easy-to-replace crowdwork tasks. For instance, progress in artificial intelligence (AI) will presumably automate a range of text-related tasks (e.g. translation, text creation, speech-to-text conversion etc.) removing these activities from the realm of crowdwork, and substituting crowdworkers who developed these techniques via the platform economy.

Concurrently, the classification of the different formats of the platform economy is still in its infancy. A good starting point is the distinction between platforms that aim to directly facilitate taking up employment online (i.e. serving as an intermediary for craftsman services) and those that exclusively provide a marketplace, which reflect modern technology without transferring an employment status on either the provider or user (i.e. rental offerings). Bonin and Rinne (2017) refer to platform work as the ‘short-term web-based agency of tasks [...] which are to be conducted in the real world.’⁴ By contrast, ‘crowdworking’ is seen as a form of organised work that internet portals use to grant both organisation and individuals access to particular online groups that either collectively work on problem-solving or offer fee-based products or services. Nonetheless, given the lack of consensus regarding the classification of different types of platforms and paid work organised via platforms, in the remainder of this report, the notion of platform-based work is used a general term comprising sub-categories distinguished by the complexity of the involved tasks and the place of work.⁵ This can be displayed in a simple matrix as shown in Figure 1, which distinguishes between online work (right column)

¹ See Bonin/ Rinne (2017), Eichhorst et al. (2017) and Stettes (2016).

² In this draft, we use platform work as the general term, crowdwork/online work for work done virtually, and the gig economy for local/offline services.

³ See Ohnemus et al. (2016), pp. 3-14.

⁴ See Bonin/Rinne (2017), p. 5.

⁵ See Maier et al. (2017), pp 10-12.

and gig economy jobs (left column), as well as between simple (top row) and complex tasks (bottom row):

Figure 1: Typology of Platform Work Activities and Examples of Platforms

		Work location	
		Mobile labour market	Online labour market
Complexity of tasks	Simple - simple qualifications required - short processing time - "microtask"	Platforms Streetspotr Abbjobber Tasks On-site research Geo data collection Mystery shopping	Platforms Amazon Mechanical Turk Clickworker Tasks Data research Compilation of short texts Surveys
	Complex - specific/ advanced qualifications required - longer processing time	Platforms Uber Takelessons MyHammer Tasks Personal transport Teaching Qualified craft activities	Platforms Upwork 99 design Peopleperhour Tasks Design projects Web development Book keeping

Source:

Maier et al. (2017), p. 11.

With this in mind, this study outlines the characteristics and challenges of the platform economy in Germany. From a methodological perspective, it

1. reviews the currently available literature on the German case (i.e. desk research); and
2. incorporates information gathered from a series of sixteen semi-structured individual interviews of platform owners, platform workers, social partners, political representatives and experts, complemented with a focus group of seven persons active on platforms.⁶

Both types of evidence mutually support each other to close gaps and cross-check the information provided. Based on this, policy recommendations are formulated. Our study represents the national report for Germany as part of the report instigated by the European Commission, which will further include assessments of the situations in Denmark, Belgium, France, Spain, Slovakia and Hungary.

Of particular interest here are the sub-sectors of crowdworking (performed online), accommodation and transport (performed offline). However, considering the specificities of platform work in Germany, a couple of considerations are essential. First, in Germany, platform work in people transport is currently virtually non-existent due to rigorous regulations imposed on Uber (see the box below), although there is an active sub-sector of food delivery. Second, the accommodation sector strictly speaking neither implies a substantial amount of platform work nor does it induce regulatory necessity in industrial relations (see the box below). In

⁶ A list of interviewees - indicating their status and affiliation in an anonymized fashion - is provided in annex 1. Quotes from interviews are indicated accordingly. All interview excerpts were translated by the authors.

consideration of this, the empirical analysis of this report mostly focuses on a) crowdworking (done online) and b) food delivery (done locally) with reference to other sub-sectors where there is some evidence.

The following chapters provide an overview of the state of play of platform work in Germany (Chapter 2), sketch the discourse, perceptions and experiences in the platform economy across the various industrial relations actors (Chapter 3) as well as platform owners and their workers (Chapter 4). In Chapter 5, we conduct a comparative analysis of all these aspects formulating possible ways ahead. Our study closes with a number of conclusions and policy recommendations (Chapter 6).

AIRBNB in Germany

Although Airbnb - at least in the early stages - might have served as an ideal example of the sharing economy, offering under-utilised space (capital) to travellers and thus creating extra income for the host and providing the guest with comparatively cheap accommodation, there is reasonable doubt whether Airbnb holds much importance in the labour economics context given that there is little work involved, One Airbnb host told us:

(...) it is basically very little effort and gets rather well paid, I'd say. So, a guest takes up maybe about 10-15 minutes of my time and I get 25 € per night. So, if you put that into relation it is quite a good hourly wage.⁷

It is also important to mention that hosts are free to set the price and choose whoever they find suitable as a client.

Moreover, the question of whether Airbnb hosts are employees or not does not arise. Meanwhile, Airbnb has turned into a business model with increasingly more professional hosts renting out entire flats or even houses, especially in popular places like Berlin.⁸ Airbnb management companies have emerged, taking care of everything from handing out the key to cleaning and organising leisure activities.

I find it quite relaxing, plus the customer service of Airbnb is very good. You get support very quickly, in case of any problems. Working with Airbnb is very uncomplicated, seeing as you can take care of everything over the app. Plus the workload is not too much.⁹

However, there is no information about the number of jobs created in this field.¹⁰ The same holds for household services related to Airbnb apartments that could in principle be organised via platforms.

'In case you have an issue, you can always get in touch with Airbnb directly, who support both the landlords and the tenants. Regarding the income, I can determine it myself...One is generally well secured, as Airbnb provides an insurance sum of up to 1,000,000€ in case of damages.'¹¹

The questions concerning Airbnb in Germany are not primarily labour related but rather focus on topics such as increased housing shortages - especially in large cities where the housing situation is already troubled - and possible tax avoidance by Airbnb hosts, which could create unfair competition with regular hotels.

⁷ Interview 17-3.

⁸ Süddeutsche Zeitung (2017).

⁹ Interview 7.

¹⁰ Die Zeit (2018b).

¹¹ Interview 17-3.

Regarding Airbnb, one has to see how it will impact the entire hotel industry. I think here lies one of the primary disadvantages, because the hotels suffer from losses of revenue due to maybe missing out on potential guests that prefer Airbnb or other similar platforms.¹²

According to media sources, German tax authorities requested access to Airbnb data in May 2018 to check whether hosts have declared the earned income from renting out property.¹³ Hence, Airbnb is under massive pressure as there are increasing attempts to regulate Airbnb activities, based on municipal regulations around the intended purpose of living space as well as tax collection efforts by German authorities.

¹² Interview 7.

¹³ See Wirtschaftswoche (2018).

UBER in Germany

There has been quite a discussion concerning the employment status of UberPop drivers, especially in the US and the UK. The discussion is not as prominent in Germany, as UberPop did not last very long and the discussion focused on national taxi regulations, safety concerns and the taxi union's fear of competition rather than the working conditions of the drivers. Uber launched its services in Germany in 2013 with the business models UberPop (then known as UberX: car sharing service) and UberBlack (Limousine service), both of which were accessible via the Uber app. As early as spring 2014, both services started to become subject to numerous law suits with temporary injunctions (Berlin: UberPop, 4/8/2014; Frankfurt: UberPop, 8/2014) and bans (Berlin, 9/2014: UberPop and UberBlack, Hamburg: UberPop, 9/2014). In March 2016, the Frankfurt Regional Court confirmed the UberPop ban for the entire country of Germany, responding to a request by the Germany Taxi Union.¹⁴ Although Uber originally requested a revision of this verdict, it withdrew in March 2018 and abandoned any plans to have this service reinstalled in Germany.¹⁵ This is possibly related to the decision made by the European Court of Justice in December 2017 ruling that Uber is not an information service as they claimed to be but rather a transportation service, thus being subject to the corresponding national regulations.¹⁶ Hence, Uber has been forced to more or less completely withdraw from the German market due to a jurisdictionally-criticised breach of fair competition as well as a violation of the German Public Transport Act. It remains to be seen whether a second lawful attempt would succeed.

¹⁴ <https://taxi-deutschland.net/themen/>

¹⁵ Handelsblatt (2018b).

¹⁶ Frankfurter Allgemeine Zeitung (2018).

2 Work in the platform economy

2.1 What is the current state of play on work in the platform economy?

In Germany, it remains true that gainful employment within the context of the platform economy can only be classified as a marginal aspect of the labour market. At present, it can be neither said that 'precarious' employment promoted by online platforms or other types of jobs presents any significant threat to 'good work' nor that any notable role of these forms of employment can be identified. Nevertheless, a timely in-depth analysis of these new forms of employment is vital since they could have the potential to create structural challenges for the labour market and social policy by undermining worker protection as well as spawning the possible necessity for adjustments to existing social security systems.

Measuring the extent of platform work is currently obstructed by issues of definition and demarcation, as well as the lack of reliable data. Empirical appraisals frequently employ overly-vague definitions of platform work in conducting surveys and therefore they might misrepresent its actual size.

Due to the limited data available, quantitative assessments of the platform economy in Germany face a range of challenges: recurrent surveys on socio-economic developments such as the Federal Statistical Office's micro-census survey or the German Socio-Economic Panel (GSOEP) provide no information at all on the new forms of employment associated with the platform economy as they are not even designed for this purpose. At present, official statistics contain scarce and indirect information. Concurrently, the reliability of separate surveys is still heavily limited due to the number of participants frequently being too low and their selection not being sufficiently representative. The instrument of online surveys bears the risk of a disproportionate consideration of users related to the new forms of employment.¹⁷ Above all, the scope of surveys is plagued by an undifferentiated inclusion of more general economic aspects of internet activities and it does not explicitly exclude aspects such as classic online job portals, classifieds portals as well as pure communication activities, whereby it overestimates the actual extent of the platform economy.¹⁸

A current survey available that systematically considers potential measurement errors shows a marginal platform work sector, close to the 'minimum threshold of measurability'.¹⁹ According to this study, at present less than one percent of all German-speaking adults (generally between 25 and 44 years old) conduct work acquired online. While the high proportion of younger people is unsurprising, the study emphasises that platform work is mostly to be considered during a phase of transition between educational attainment and labour market entry.²⁰

In two-thirds of all cases, while the tasks are found online, they are actually carried out in 'real life' (gig work in our definition). Only the remaining one-third comprises tasks that are conducted virtually or online (crowdworking). This largely constitutes a source of minor

¹⁷ See e.g. Huws et al. (2017). This source tends to overestimate the role of online working; however, the structure of participants and earnings is broadly in line with findings from other studies.

¹⁸ Regarding these issues, see Pongratz/Bormann (2017), pp. 179-181; Bonin/Rinne (2017), pp. 5, 9.

¹⁹ See Bonin/Rinne (2017), p. 17.

²⁰ See Stettes (2017), p. 36.

additional income as opposed to a regular one and is currently dominated by low-skilled tasks. While platform work displays a certain potential for serving as the basis for a regular income, since half of those who have a consistent income via these means of work claim that it is their primary source of income, the internet is by no means the only option for acquiring work assignments, as there are other established market places. Not even one-third of the respondents indicate the exclusive procurement of gig work tasks via online platforms, while in the case of crowdworking the opposite can be seen, due to the frequent online emergence of the tasks.²¹

A correlation between the extent of platform work - or rather the willingness to work on platforms - and the educational level can be identified. A recent study confirms this fact and refutes the common speculation that platform work and crowdwork are primarily phenomena associated with low-skilled workers.²² However, due to the disproportionate share of younger workers, this educational effect is not analogously reflected in the distribution by household income. Furthermore, a systemic variance by household size is also not identifiable. The more profuse manifestation of platform work (such as gig economy services, e.g. food delivery) in larger cities should be based on the corresponding higher share of the younger and well-educated population, in particular students and young graduates.

Within this context, the analysis by Bonin and Rinne shows once again how surveys are susceptible to erring due to incorrect self-classifications of respondents and a widespread unfamiliarity of the intrinsic characteristics of the platform economy. As a result, no reliable claims can be made based on this concerning the extended dynamics of work via platforms.

Furthermore, general labour market statistics tend to confirm the hitherto heavily limited empirical relevancy of the platform economy in Germany. In the face of recent continuous dynamic labour market trends, a discernible growth of so-called solo self-employment and other similar forms of freelancing could in principle indicate a growing significance of platform work, although the compatible surveys do not differentiate between primary and secondary employment. However, this is not shown in the data as the total number of solo self-employed persons has been relatively stable in the past decade. The total percentage has even decreased in digital vanguard sectors such as traffic, logistics or financial services.²³ The preceding quantitative growth was contingent on changed institutional and legal frameworks supporting business start-ups. The decline since 2012 is based on a reduced start-up activity and cannot be associated with the platform economy.²⁴

Irrespective of the public attention obtained, platform work in Germany does not yet attain a similar quantitative significance compared with other established forms of non-standard employment. While marginal part-time employment, temporary agency work, offline solo self-employment and other forms of employment are currently stagnating, they play a much stronger role in the German labour market than any form of platform work.²⁵

²¹ These conclusions are derived from an evaluation of a survey on selected 10,000 adults in mid-2017 on behalf of the Federal Ministry of Labour and Social Affairs; see Bonin/Rinne (2017). For additional empirical information, see Leimeister et al. (2016).

²² See Leimeister et al. (2016), p. 73.

²³ See Stettes (2017), pp. 44-45.

²⁴ See Eichhorst et al. (2016), p.12; Brenke/Beznoska (2016), p. 19.

²⁵ See Eichhorst et al. (2016).

Recent surveys of businesses concerning the level of familiarity of the new forms of employment and their likelihood of using these new options provide some additional points of reference. On the one hand, the awareness of crowdworking has not only increased within the information technology sector, but in the last couple of years it has considerably increased even beyond. On the other hand, only a marginally increasing probability of the application of crowdworking formats in the near future is derived from this increased awareness. This probability remains most distinct within smaller businesses and those that have previously employed freelancers.²⁶

A likely cause for the rather limited inclination of more profusely using crowdwork - as indicated in the survey of businesses - can be found in the practical obstacles identified. The surveyed firms highlight additional transaction costs (organisation of outsourcing via platforms, monitoring of crowdworking, etc.) as well as legal uncertainty as the primary concerns, above technical implementation issues. Most notably, a significant share of the businesses still reject crowdwork as a form of work. Furthermore, severe scepticism revolves around the feasibility of quality control, a potential disclosure of operational know-how and - above all - the general suitability of work contents. This is a clear indication that the future potential of crowdworking seems limited for many businesses.

In the remainder of this section, we discuss several attempts to partially remedy the lack of data by means of web data analysis. Our attempt to leverage the web as a data source to shed some light on several issues in the platform economy included:

1. Trying to join international Facebook groups of Uber/Lyft workers (non existent in Germany) in an attempt to see whether, in principle, activities take place therein that might be substituting labour union activities.
2. Evaluating the demand for documents relevant to the phenomenon using Google Trends.
3. Evaluating the supply of relevant documents in an attempt to see where the social dialogue takes place.

Methodology and a more detailed account of these efforts are available in the Appendix. Briefly speaking, regarding the first part of our investigation, for various reasons, we could not penetrate the closed Uber/Lyft groups (found mostly in metropolitan US areas) where we suspect (and have reasons to believe) that union-substituting activities take place. We did however find evidence from our interviews in Germany of at least one case, in the food delivery sector, of using a WhatsApp group for the facilitation and self-organisation of platform workers, who thus successfully elected and established a works council. Such activity within WhatsApp and other similar platforms is undetectable and we suspect that it remains a valid and interesting hypothesis that non-traditional forms of self-organisation is likely to exist and remain out of reach.

Regarding the second part of our investigation, none of the terms commonly used to refer to the various aspects of the platform economy (see Annex 2) register in the demand for documents as captured by Google Trends which is consistent with the hypothesis that a small number of experts discuss the phenomenon, i.e. the discussion did not reach the society at large and that while the phenomenon might grow in the near future, it is not as significant economically or in terms of labour economics.

²⁶ See Ohnemus et al. (2016), pp. 4-14.

The core idea, regarding the third and most promising part, is using the proliferation of relevant documents as a proxy for both the localisation and intensity of the social dialogue. The supply of documents was quantified by using Google's search engine. In figures 2 and 3 below, we captured, classified and worked out the shares of the top one hundred web documents discovered with Google using English terms (Figure 2) and German terms (Figure 3), respectively. The figures show that the discussion is mostly contained in academia, think tanks, interest groups and policy entities, whereby academia leads when using English terms while interest groups and policy entities lead when using German terms. We consider these results as supportive of the hypothesis that the issue of the platform economy has 'arrived' in the political discourse, although there is an issue of language and definitions as well as a divide between academia and policy.

Figure 2: Classification of Web Pages and PDF Documents Using English

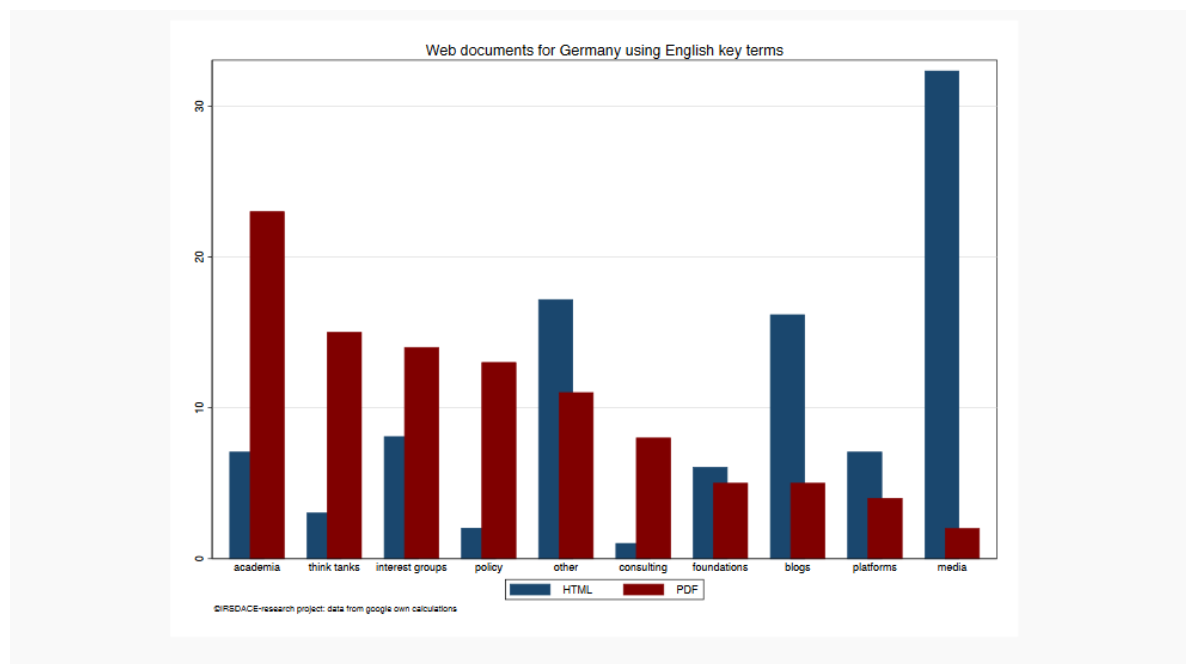
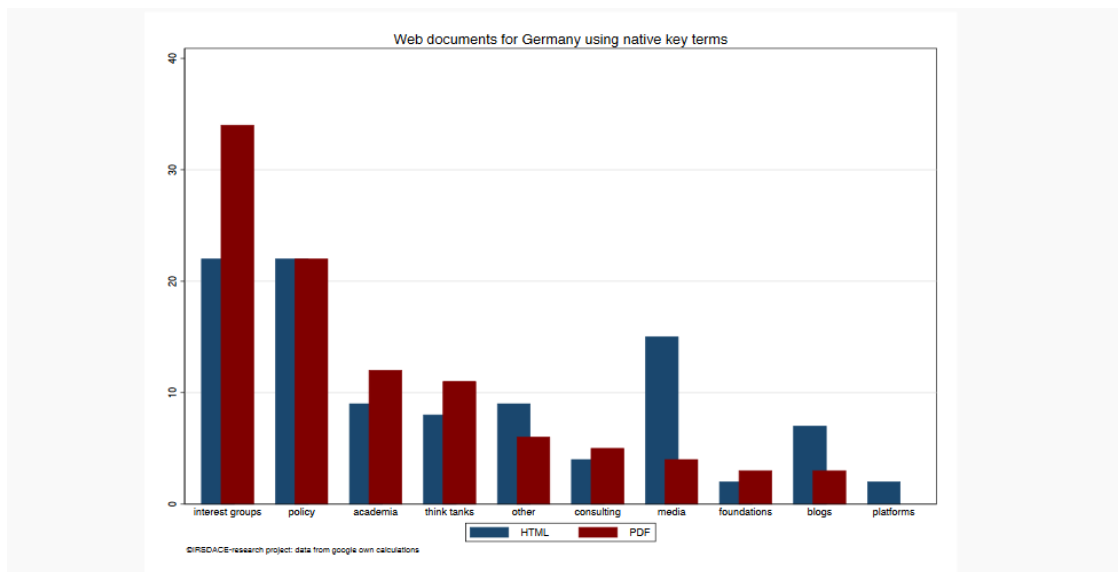


Figure 3: Classification of Web Pages and PDF Documents Using German

2.2 What are the main challenges and impacts for workers?

The various forms of platform work represent potentially significant challenges for the world of labour, since the future growth of these forms of employment could possibly lead to an erosion of employee's rights - attached to a dependent employment relationship - or create scenarios of excessive job demands. Furthermore, there are potentially few opportunities for training and development, and social security gaps could develop consequently. Platform work could contribute to the emergence of 'precarious' jobs as well as applying pressure on the wage level, especially for the low-skilled.

At the same time, the new forms of employment are naturally accompanied by a number of opportunities for workers. By decoupling the place and content of work, the new employment forms promote individual working environments and a maximum flexibility of the work scheduling to better reflect individual needs. Additionally, a particular bargaining power in favour of the workers is achieved, at least for highly-qualified workers and well sought-after experts. Finally, platform work can pave the way for an easier access to paid work for those outside the labour market or interested in experimenting with new or additional services offered to potential customers.

The current debate is dominated by critical assessments and efforts to tame the platform phenomenon into the existing industrial relations.

This leads to the difficulty of the definition and self-perception of platform work and platform providers. Can platforms be considered as employers in the conventional sense? Is there a regular employer-employee relationship between platform providers and their contractors, for which traditional 'rules' should apply? Are platform workers considered to be employees, or should they be categorised within 'bogus self-employment'? Alternatively, is the term

“arbeitnehmerähnliche Person” (employee-like self-employed) - established within German law (and nowadays even in most EU member states) for those who are formally considered as freelancers but exclusively rely on a single customer - more suitable to cover the new labour forms of the platform economy? The answers to these questions yield different implications for those engaged in the platform economy.²⁷

To date, no specific rules regarding the legal status of platform workers and their social security position exist in Germany.²⁸ Even the home work act (Heimarbeitsgesetz/HAG) - which can be considered most applicable to the issues at hand - still defines home work in a traditional way and therefore excludes platform workers according to current jurisdiction.²⁹ The ‘Weißbuch Arbeiten 4.0’ (White Paper Work 4.0) of the Federal Ministry of Labour and Social Affairs (BMAS) merely indicates in its assessment that in the case of a growing significance of the platform economy, protective rights should be applied to freelancers with a comparable employment status of those traditionally employed, and - if needed - similar regulations to those found within the home work act should be implemented if new precarious forms of employment should indeed be created by platform work.³⁰

For simplification purposes, due to the rich variety of relationships between platform operators, clients and contractors, the German debate has been dominated to date by the perception that generalising classifications is hardly possible and that only a case-by-case approach could be effective in the event of legal disputes. Therefore, the German legal debate trails behind the Anglo-American one, where more concrete definitions have already been developed.³¹ A systematic debate about a possible revision of the definitions of ‘employee’, persons with a comparable employment status (arbeitnehmerähnlich), ‘home worker’ and ‘solo self-employed’ has proceed beyond initial discussions to date.

This results in a rather diffuse constellation - in terms of labour and social law - for those engaged in platform work. They do not appear as classic ‘employees’ subject to instructions and consequently their level of protection is inherently restricted. Therefore, essential provisions such as the protection against dismissals or those related to a minimum wage do not apply. An employee-like status can only be considered when the economic dependence on platform operators can be determined and when the platform is involved in the acquisition of over half of the income. This should not be the case in the majority of instances, as the surveys mentioned above indicate. Even then, only a minor level of protection applies. The classification as a ‘home worker’ would bring about a comparatively more favourable position, although the key criterion of accepting work tasks is not fulfilled because generally platforms are used to apply for these tasks. Only in the rare case when regular employment contracts between platform operators and contractors are involved are these issues easily solved. A further disadvantageous aspect is the frequent unlawful structuring of the terms and conditions of crowdworking portals and platform providers.³² The overall rather diffuse legal initial position

²⁷ See Leist et al. (2017) for further details. This study offers an extensive classification within the context of international debates around the legal categorisation of platform work.

²⁸ See Deutscher Bundestag (Wissenschaftliche Dienste) (2017).

²⁹ See Klebe (2017), p. 3.

³⁰ See Federal Ministry of Labour and Social Affairs (2017), p. 175.

³¹ See Leist et al. (2017), p. 32.

³² See Bechtloff/Zöllner (2016), pp. 139-148.

of platform workers tends to increase the need for consultation and interest representation as well as for institutions such as works councils.

On top of the issues of adequate representation of interests and fair compensation, platform workers are also faced with the challenge of social security coverage. When conventionally employed (as dependent employees), they benefit from the standard extensive social security coverage, although as freelancers they carry the sole responsibility unless they fall under specific regulation that regards craftsmen, artists and a couple of other occupations. No provision is made for an interim solution within the scope of German law, which in this case displays signs of rigidity and exclusion.³³ Consequently, platform workers with a minimal income - which also serves as their main source of income - are threatened with a high risk of under-insurance.³⁴ On the one hand, this issue is indeed mitigated by the fact that many platform workers are covered by social protection attached to a job subject to social security contributions and therefore they have full health, unemployment and pension insurance. On the other hand, the severe disadvantage of no additional pension entitlements via platform work remains. Under a range of specific narrow conditions, self-employed persons can apply for a compulsory insurance themselves. However, this possibility is largely unfamiliar and sparsely used due to the limited income derived from platform work.³⁵ The minimal quantitative significance of platform work thus far could therefore be used pro-actively to prepare the general inclusion of freelancers in social security systems and thus regulate the compulsory contributions of platforms or rather the clients.³⁶

A further fundamental disadvantage of platform workers compared to regular employees is access to training opportunities, an issue that has received less attention. In order to endure the inherent competition of the platform economy and secure orders without having to lower the price, platform workers - particularly those engaged in the technical and creative areas - frequently rely on keeping their human capital up to date. Naturally, financing this is easier for those freelancers with a stable customer base as opposed to those with a fluctuating income and a resulting smaller willingness to invest. Conversely, survey data also reveals that a fraction of the platform workers perceive work via platforms as a training opportunity that they want to use.³⁷

A further aspect not to be underestimated in terms of its relevance for the protection of employee's interest within the platform economy is the actual business models of the platform operators. Excessively severe regulations could result in evasive reactions or - in an extreme case - could derive platforms of their economic basis, thereby also inhibiting the opportunity to work and earn for potential platform workers. The (temporary) failure of the transport services provider Uber to open up a market in Germany shows how the influence of lobby interests can stifle any initial attempts to enter an ascertainable market and (secondary) employment opportunities.

³³ For further details, see Preis/Brose (2017).

³⁴ In the case of brokerage platforms for household services (i.e. 'Helping') that regularly have the same clients and contractors, a compelling case for compulsory social security contributions for the client could in principle be made, albeit which could be avoided via a termination of the job assignment; see Preis/Brose (2017), pp. 47-48.

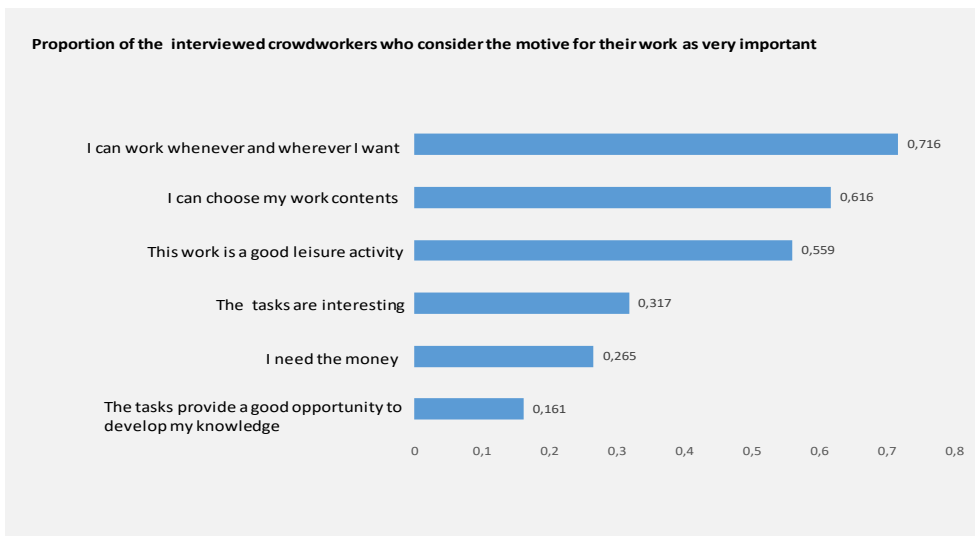
³⁵ See Preis/Brose (2017), p. 48.

³⁶ See Klebe (2017), p. 3.

³⁷ See Bertschek et al. (2016), p. 39.

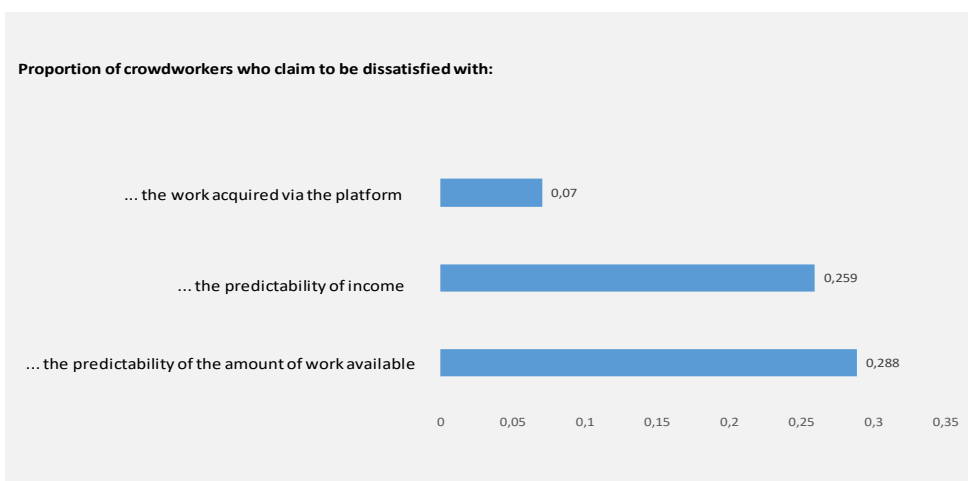
As section 2.1 has demonstrated, the platform economy in Germany is currently still in its infancy and appears not to take up a significant place in the working life of most contractors; rather, temporary crowdwork and platform work seem to prevail within younger age groups. Interviewed crowdworkers stress the attractiveness of being able to choose the work content and determine their working hours themselves and they generally only express dissatisfaction regarding the work organised via the platforms to a minor extent (see figures 4 to 6 below).

Figure 4: Work on the Platform: Motives

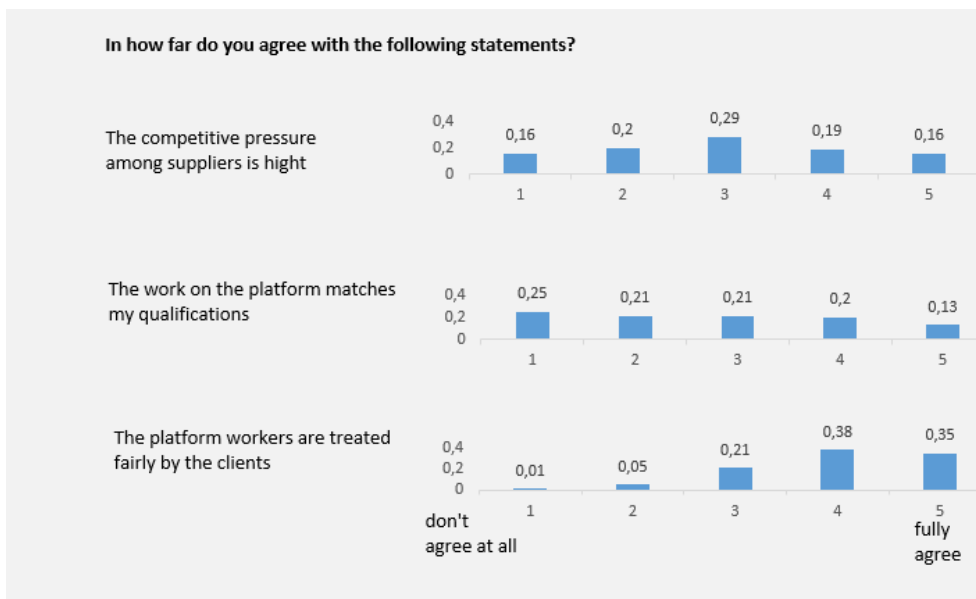


Source: Bertschek et al. (2016), p. 39.

Figure 5: Work on the Platform: Job Satisfaction



Source: Bertschek et al. (2016), p. 40.

Figure 6: Work on the Platform: Assessment of Working Conditions

Source: Bertschek et al. (2016), p. 41.

Hence, based on the evidence presented above, for many active users platform work is deemed a welcome option for an additional income gain and a source of professional experience. Therefore, flexibility and bridging - i.e. transitional aspects regarding the professional development - play a special role for this category of persons, e.g. doing platform work while studying and searching for employment subject to social security contributions or when in preparation for regular freelancing, in terms of testing market opportunities. For this purpose, the new forms of employment offer a range of opportunities, which could outweigh the risks outlined above.

2.3 The Role of industrial relations and social dialogue in platform economy work

The German system of industrial relations was shaped in the post-World War II period in the Western part of the country and extended to East Germany after the reunification in 1990. The basic features of the system were geared towards depoliticising industrial relations, taking conflict out of the workplace and facilitating a cooperative relationship between workers and management.³⁸ It relies on five main pillars:

- worker representation at the establishment level as well as at the company level (works councils/*Betriebsräte*) and co-determination at corporate supervisory boards (*Unternehmensmitbestimmung*);
- unified trade unions, encompassing different traditions and ideologies (*Einheitsgewerkschaften*);
- autonomy of collective bargaining on main aspects of pay and working conditions, typically taking place at the sectoral and regional level, with some sectors and regions acting as pace makers (pattern bargaining, regularly this is the metal working sector);

³⁸ See Behrens (2017).

- strong juridical codification by way of collective and individual labour law, including collective agreements, legislation and case law;
- clear and disciplining rules with respect to strikes and short warning strikes (unlawful if not recognised by a union) as well as industrial peace periods (*Friedenspflicht*) while collective agreements are valid.

The German industrial relations regime proved its stability and crisis resilience more than once. About a decade ago, it helped to master the severe effects of the Great Recession in a remarkable manner. Trusted and established bargaining institutions of employers, works councils and unions allowed negotiating pacts for employment and competitiveness and implementing short-time work programmes as a means of overcoming the crisis.³⁹

However, over recent years collective bargaining coverage has declined, as have employers' organisational density and union density. Today, only about 19 percent of all workers in Germany are members of trade unions, albeit with substantial regional disparities. In several federal states, about 24 to 30 percent of the employed in 2015 were organised in a union, compared with only about 10 to 15 percent in others. The level of trade union membership is particularly low in East Germany, with an average of 16.5 percent.⁴⁰

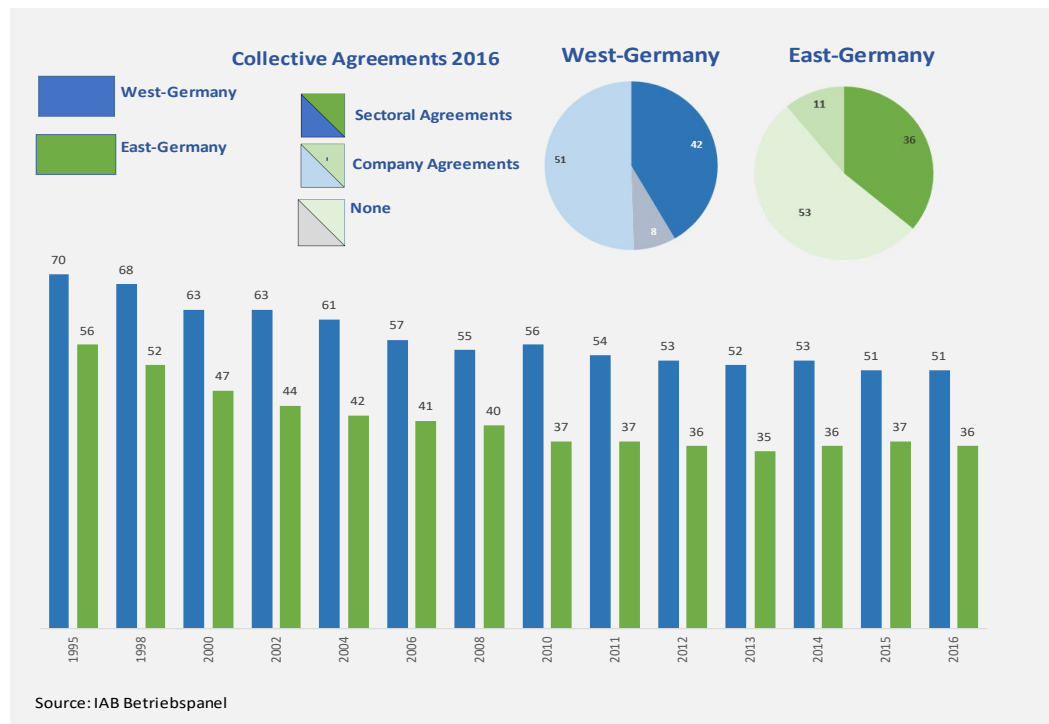
Unsurprisingly, the decline of average firm size throughout the accelerated structural change of the German economy plays a crucial role with respect to union density, collective bargaining and works council coverage. Furthermore, liberalisation trends fostered by European legislation standards have affected the German industrial relations model for both better and worse.⁴¹

As can be seen in Figure 7, as of 2016, on average roughly half of all German employees are covered by industry- or company-wide collective agreements. The last two decades has seen a significant decline in coverage from 76 to 59 (Western Germany) and 63 to 47 percent, respectively (Eastern Germany).

³⁹ See Behrens (2017), p. 23.

⁴⁰ See <https://www.iwd.de/artikel/gewerkschaften-unter-druck-344602/>.

⁴¹ See Behrens (2016), p. 22. European answers to the challenges of the platform economy are not part of this study; see Risak (2018).

Figure 7: Coverage by Collective Agreements in Germany, in % of Workers

Source: doku.iab.de/aktuell/2017/Tarifbindung_2016.pdf

There are huge differences in collective bargaining coverage across sectors and regions. The private service sector is quite heterogeneous in this respect, with high coverage in banking and insurance, and low coverage in many other sub-sectors. Furthermore, there has been a decentralisation in collective agreements, allowing for more deviations at the firm level to be negotiated with works councils while regular collective bargaining does not involve works councils.

As a recent study has put it: *“The German model nowadays resembles a Swiss cheese: rather solid from outside, but many holes inside.”*⁴² Aside from the public sector, works council coverage has significantly fallen in parallel to the shrinking collective bargaining coverage. While larger and older firms in the traditional industry sectors are more likely to still operate works councils, structural change and the emergence of new, smaller enterprises - and the platform economy - in service sectors have resulted in a push-back effect for works council coverage. Obviously, technological change and internationalisation shatter the transaction-cost advantages of collective institutions and reveal their rigidity or even “mismatch” in certain dynamic sectors of the economy while enhancing the advantages of decentralisation and flexible regulation.⁴³ Against this background, the implementation of the German statutory minimum wage in 2016 responded to the fact that collective bargaining power had decreased.

The emerging platform economy poses new challenges to the German industrial relation system, which is “clearly on the retreat”⁴⁴. As platforms facilitate work by formally self-

⁴² Oberfichtner/Schnabel (2017), p. 18.

⁴³ See Oberfichtner/Schnabel (2017), pp. 19-20 and IIsøe (2017).

⁴⁴ Oberfichtner/Schnabel (2017), p. 22.

employed workers, they could potentially undermine the scope and the very functioning of collective bargaining as well as legislated labour law standards - including the minimum wage or working time regulation - that are related to dependent employees. Hence, platform work operates outside traditional industrial relations and collective agreements. This is also the case with many (offline) self-employed and freelancers, given that standards for remuneration (*Honorarordnungen*) only exist in some established professions (e.g. notaries, medical doctors, lawyers).

Hence, it is fair to say that the different areas of the platform economy are not fully integrated in the collective bargaining architecture, and it is highly unlikely that industrial relations in the platform economy will look similar to the arrangements in traditional sectors. Apart from the only recent and highly dynamic economic and institutional development of this sector, a few explanations can be put forward:

- Platform work is often only carried out in a certain transitory stage of the working life, and often it is only a side activity. Workers in such a situation typically are not likely to join a trade union or organise from bottom up. While gig workers can organise locally and tend to develop their networks, online platform workers are typically quite isolated from each other, which inhibits collective organisation.
- Platform workers often are seen as or see themselves as self-employed or entrepreneurs. Trade unions are now more open towards solo self-employed, and some professional associations exist, although this far from being comparable with union organisation in mature traditional sectors.
- Platforms are quite reluctant to engage in bargaining and consider themselves as intermediaries rather than as employers.

While the institutional setup of German industrial relations has not yet been amended with respect to the platform economy, a number of important initiatives initiated by unions map out future developments. Since 2015, the “Crowdsourcing Code of Conduct” - initiated and signed by a number of platform companies - aims to create “general guidelines about how to act in regard to crowdwork and thereby create a basis for a trust-based and fair cooperation between service providers, clients and platform workers,, supplementary to current legislation.”⁴⁵ Among others, the undersigned members commit to fair payment, clear tasks and reasonable timing, as well as a regulated approval and complaint process. The Crowdsourcing Code of Conduct is the first of its kind worldwide, aiming to define minimum standards. Although the number of members is very limited thus far and the code of conduct does not establish binding rules, this initiative has given momentum to other steps in the direction of identifying a “good practice” of the platform economy.

The metal workers’ union IG Metall has initiated innovative campaigns addressing platform work in a variety of ways. The ‘Frankfurt Paper on Platform-Based Work’ from late 2016 transfers the core principles of the Code of Conduct to the international stage. Jointly with a group of Swedish, Danish, Austrian and US unions, the IG Metall calls for working hours regulation (35-40 on average per week), income standards at least at the minimum wage level,

⁴⁵ <http://crowdsourcing-code.com/>.

full access to social protection regardless of employment status, and the right of platform workers to negotiate collective agreements with platforms and clients.⁴⁶ While these initiatives certainly cannot replace any collective bargaining structures and have not yet led to negotiations between platforms and unions, they have still proven effective in indirect terms: stimulated by this declaration, the web portal faircrowd.work/de offers information packages for platform workers and enables them to rate their platforms. In 2017, the IG Metall, the German Crowdsourcing Association and the signatories of the Code of Conduct jointly established a neutral arbitration board with the purpose of disputing settlements between platform operators and platform workers.⁴⁷ In the long run, the decision of IG Metall in 2016 to grant membership access to solo self-employed platform workers could be even more significant.⁴⁸ In doing so, following suit after the services trade union *ver.di* - which nowadays includes 30,000 freelancers,⁴⁹ as the largest single trade union in Germany (and Europe's largest industrial trade union) - has opened up towards platform workers, this should set certain standards for the union landscape as a whole and could provide trade unions with the opportunity to compensate for membership losses due to industrial restructuring by addressing new target groups.⁵⁰

The Federal Government aims to enrich the debate on “good work” within the realm of the platform economy with its “White Paper Work 4.0”, published in March 2017. It proposes to modify unemployment insurance to a more general work insurance, include all self-employed persons in the statutory pension scheme and create incentives for collective bargaining and works council structures within the platform economy. Two pieces of draft legislation have been submitted by opposition parties to the German parliament focusing on an easier establishment of works councils (but not explicitly mentioning the platform economy).⁵¹ However, the current coalition agreement between the CDU/CSU and the SPD remains rather vague: *‘Our goal is to have strong German and European actors in the platform economy, and thus we want to break down existing barriers. We advocate a level playing field, which also incorporates the rights of employees and consumers. To this end we will demand platform participation.’*⁵²

⁴⁶ See

https://www.igmetall.de/docs_20161214_Frankfurt_Paper_on_Platform_Based_Work_EN_b939ef89f7e5f3a639cd6a1a930feffd8f55cecb.pdf

⁴⁷ See <http://faircrowd.work/de/2017/11/08/ombudsstelle-fuer-crowdworking-plattformen-vereinbart/>.

⁴⁸ See <http://faircrowd.work/de/unions-for-crowdworkers/leistungen-der-ig-metall-fur-solo-selbstandige/>

⁴⁹ See *Ver.di* (2017a).

⁵⁰ See Kilhoffer/Beblavy (2017), p. 30.

⁵¹ See Deutscher Bundestag (2018a,b).

⁵² Bundesregierung (2018), p. 41.

3 Discourse, perceptions and experiences on work in the platform economy among established industrial relations actors, processes and outcomes

3.1 Discourse, perceptions and experiences on platform economy work among employee representatives

As outlined in the previous section, trade union engagement with the issue of the platform economy is clearly increasing. Both public and trade union discourse focus on the issue of the risks and the regulatory necessity of platform work. Meanwhile, the position of trade unions has been articulated in several policy papers and statements, not least within the scope of the expert discussion sparked by the Green Paper/White Paper “Work 4.0” presented by the Federal Ministry of Labour and Social Affairs (BMAS), as well as the Green Paper/White Paper “Digital Platforms” by the Federal Ministry of Economics and Energy (BMWi). In addition to IG Metall, in its exemplary pioneering role, primarily the Federation of German Trade Unions (DGB) and the largest service sector trade union Ver.di have to be mentioned.⁵³ The trade unions predominantly articulate the perception that the legally-uncertain world of labour inherent in forms of platform work facilitates ‘dumping processes’ (DGB) and the proliferation of precarious work. The trade unions conjecture a significant increasing importance of these new forms of labour, and based on this assessment they urge for active participation in the shaping of ‘good work 4.0’.

At the centre of the demands made by the trade unions is the determination of minimum standards within the platform economy on the one hand; for instance, in the form of modified general terms and conditions and minimum fees (as an equivalent to minimum wages). On the other hand, in order to underpin their own position as employee representatives within the platform economy, the trade unions demand a redefinition of the notions of what constitutes an ‘employee’ (i.e. removing legal grey zones with economically-dependent or bogus types of self-employment) as well as operational concepts (i.e. platforms as businesses, not only agencies or a market places). Based on this, platform workers should be integrated as dependent employees in the scope of protection provided by existing labour laws, while at the same time their active role in workers’ participation has to be organised. A third key area of concern for trade unions is the issue of social security for platform workers. They postulate the extensive inclusion within existing security schemes and emphasise the obligation of platform owners to contribute to social security funds. In a practical sense, trade unions demand universal access to platforms to facilitate the organisation of interest groups. Furthermore, trade unions plead for European and international framework agreements for expanding the restricted leeway of national legislation.⁵⁴

In order to deepen the understanding of trade union positions, within the scope of this study expert interviews with representatives of three major sectoral trade unions have been conducted. All things considered, they emphasise that the trade unions have opened up towards the issues at hand, although in practice they have not yet achieved a considerable

⁵³ Greef/Schroeder (2017), pp. 31-38 provide an overview on the current positions of German trade unions on the platform economy.

⁵⁴ See Greef/Schroeder (2017), pp. 31-32.

exchange with platform providers. In addition, on the part of the platform workers themselves, no comprehensive demand for a systematic blanket representation of interests is being expressed. The following statement (referring to a survey of freelance members conducted by one of the trade unions) serves as an example to illustrate this aspect:

'The general feedback of our freelancers is that they tend to express that platform work appears to be a relatively minor issue to be tackled. Most of our members do not push us towards dealing with issues related to the platform economy. In my opinion, this is due to the small significance of the phenomenon and that it is still hard to tell how it will further evolve. This does not mean that we do not take this issue seriously, but at this point of time, it remains a testing ground.' ⁵⁵

A different representative of a trade union describes the challenge of the trade unions not to lose track of the opportunities of the platform economy from the employee's perspective when faced with the risks involved:

'[...] we have a very differentiated view, due to these risks. They are very relevant and could have significant impacts on labour and industrial relations. However, we have also experienced that it has brought about opportunities, in terms of permitting people to join the professional life. Of course, this is a development which we endorse and would like to accompany, as long as it does not lead to a race to the bottom regarding wages, social security and worker's participation.' ⁵⁶

In relation to the issue of not being able to cover the extremely heterogeneous reality of platform work through blanket regulations regarding trade union co-determination and social dialogue, the extension of social dialogue with the participation of platform workers plays an important role according to the same trade union expert:

'[...] Of course, one could navigate through existing structures, but one also needs to conceive new solutions and hypotheses. It would be useful to include new actors, such as trade unions, within structures, which would be a new form of dialogue. One step further, one could even include platform workers, due to the heavy discrepancy in their motivations, situations and need for reform. A single new institution or framework cannot solve the broad range of constellations and issues involved [...].' ⁵⁷

One interviewee from the trade union side clearly clarifies the difficulties of social dialogue - which essentially should be a social dialogue in the platform economy - and how it could successfully be organised with the participation of all actors:

'Naturally it is a different situation due to the tripartite governance structure and the different constellation of actors. You must do justice to this. You cannot remove all responsibility of the contractor or employer, which for the most part, are businesses which do co-influence the conditions. While there are some platforms which are actual market places, others indeed display employer-like characteristic and do get involved in micro control. The biggest hurdle is to think of a solution of how to get all actors on

⁵⁵ Interview 13.

⁵⁶ Interview 5.

⁵⁷ Interview 5.

board. The primary dispute is about how the platforms refuse all responsibility by claiming to only be market places.’⁵⁸

As part of a survey on their (solo) freelancing members - of which about 50 percent are not full-time freelancers - the services trade union Verdi has gathered information on the prevalence of platform work and levels of satisfaction related to these forms of employment.⁵⁹ Even though the findings cannot be deemed representative due to the limited sample size and the dominance of freelance journalists, they convey an image of the perceived challenges of the interviewees. This provides additional evidence from the trade union perspective.

According to this survey, earning a sufficient income is mentioned as the main challenge of the self-employed, as only barely more than one-third of those surveyed derive their income from freelancer activities. The demand situation is followed by the issue of social security. Accordingly, the surveyed Ver.di members expect their union to exert influence on political regulations in favour of platform workers, consultation and networking offers, as well as the opportunity to rate platforms. Finally, respondents articulated that trade unions must ‘both better [...] understand and [...] accept the particularities of the often voluntarily chosen mode of employment of freelancers.’ The increasing ‘hybridisation of employment’ leads Ver.di to derive an adaption of its self-perception and ‘push union organisation outside of businesses as well.’⁶⁰

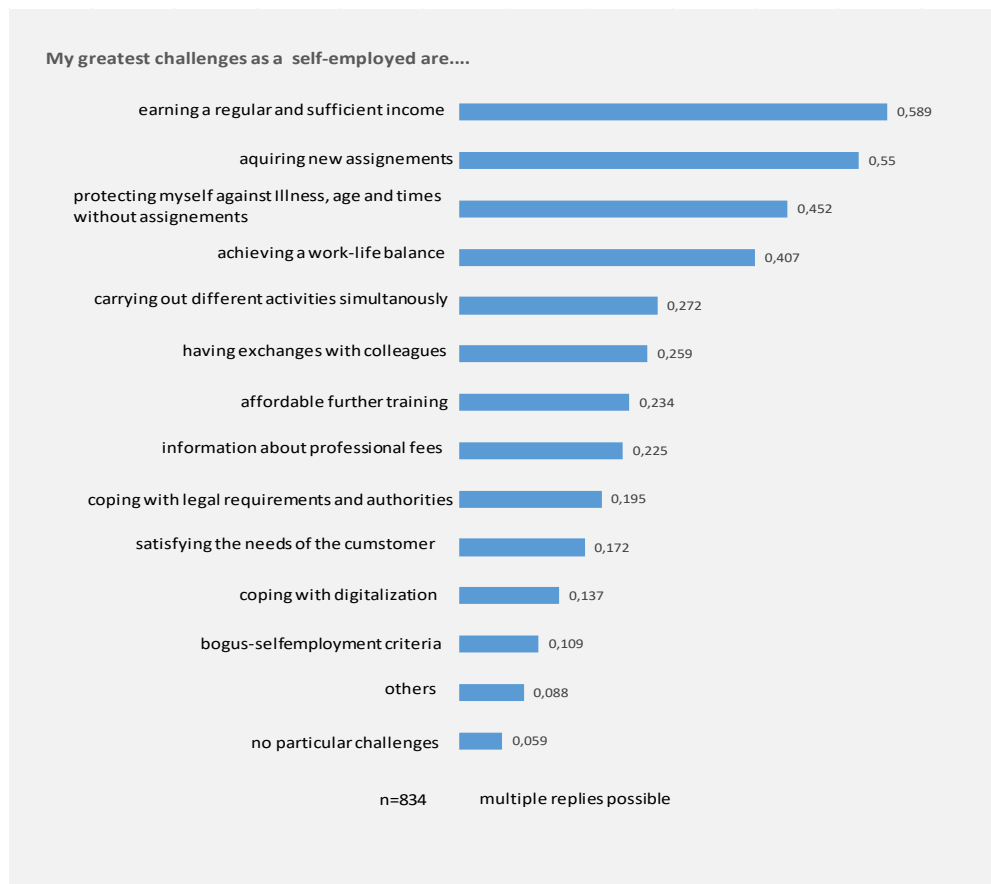
Even if this could cause a possible diversification of trade union interest representation as a result of the new forms of employment related to the platform economy, trade unions continue to prioritise the conventional modes of workers’ representation. It was not until May 2018 that Ver.di once again resolutely declared itself in favour of an easier establishment of works councils in the German platform economy, particularly in the case of delivery services.⁶¹

⁵⁸ Interview 13.

⁵⁹ See Ver.di (2017a, b) and Pongratz/Bormann (2017).

⁶⁰ Ver.di (2017a), pp. 3-4.

⁶¹ See Handelsblatt (2018a).

Figure 8: Challenges of Professional Self-Employment

Source: Ver.di (2017a), p.3.

Recent media coverage as well as anecdotal evidence suggest that in at least some sub-sectors within the platform economy the primary battleground where platform workers and operators are currently contesting each other revolves around the establishment and smooth operation of works councils.⁶² In this respect, at least two different obstruction strategies can be witnessed on the part of the platform operators: the first strategy uses fixed-term contracts to obstruct the emergence of works councils, while the second leverages freelance contracts to the same end. Crucial for the establishment of works councils is the status of longer tenure, facilitated by open-ended contracts. Therefore, in relation to platform businesses, Ver.di demands the removal of fixed-term contracts for employees' representatives in works councils.⁶³ It is essential for functional works councils to operate based on open-ended contracts, as otherwise workers' representation is being hindered by repeatedly-expiring fixed-term contracts.

A representative of a trade union strikingly highlights this aspect, with a view to delivery services:

'Delivery service provider X has a worker's council since almost three-quarters of a year. Delivery service provider Y has recently had successful elections for one.'

⁶² See Die Zeit (2018a).

⁶³ See Handelsblatt (2018a).

*Initially, we had 150 employees at Delivery service provider Y who wanted to elect a workers' council. However, on election day only 40 remained, due to expiring employment contracts and Delivery service provider Y now only offering freelance contracts.'*⁶⁴

On the initiative of platform workers themselves, the collective representation of Foodora food delivery couriers by the *Gewerkschaft Nahrung Genuss Gaststätten* (NGG, the main trade unions in food, restaurants and hotels) represents one of the first concrete examples of collective representation in the platform economy. Contrary to its competitor Deliveroo, Foodora has organised its delivery services through regular fixed-term employment contracts, whereby in addition to their marginal part-time workers, it imparts them with health insurance, unemployment insurance and social security coverage. By doing so, they have laid the foundations for the establishment of works councils, which thus far exist in two locations. This example has an international component built on the heels of a pre-existing cooperation with Vida, NGG's Austrian partner. The two unions helped to establish the first and second works councils for food delivery couriers Europe-wide, respectively. The support of Deliveroo workers by the much smaller anarcho-syndicalist union federation FAU provides further evidence of a rather demand driven development in the field.

At this point, anecdotal evidence given by an interview partner working for a food delivery company might be illuminating: the attempt to establish a works council that later failed due to expiring contracts was supposedly organised via a WhatsApp group. This demonstrates the difficulties in "matching" new platform economy structures and traditional employees' representation, although it shows that new technologies themselves may come up with the proper solutions in the absence of a local firm and on-site employee staff. A food delivery courier puts it as follows:

*'There were some emails in which trade union representatives introduced themselves, as well as some election letters, which were send back to Berlin and resulted in the establishment of an official trade union representative. In all sincerity, however, this kind of did not really affect me much, as I neither know much about this person, nor do I really belief in any significant change happening within the next six months... Well, they did approach us directly, introduced themselves, and proclaimed that they would like to be elected... Generally I think this is a beneficial development, if only it would work... The bottom line is that they will be too small to get anything done. Trade unions can only effectively operate when they become big enough, such as ver.di, and are able to threaten with warning strikes. We do not currently possess the necessary level of cohesion, which in turn means that we do not have any kind of pressure we can exert on our employers, even if we wanted to... It still might take five to ten years.'*⁶⁵

The union involved encourages and supports workers to pursue legal action against unjustified fixed-term (re)employment based on possible infraction of the legislation on part-time and fixed-term contracts. Moreover, the labour union considers it paramount to establish a clear distinction between working as a freelancer and being conventionally employed, as the different employment statuses have considerable implications for access to social security, i.e.

⁶⁴ Interview 6.

⁶⁵ Interview 17-1.

health insurance, unemployment insurance and pension schemes. Occupational safety, proportional wages, the provision of adequate working equipment are further important aspects.⁶⁶

In this context, the representative of the trade unions sees their role as one of clarification and “enlightenment”:

‘Our goal is to clarify the distinction between a freelancer and a regular employment contract and that we also have a regular worker’s participation, without workers council that break apart after a certain time due to expiring contracts. We are in the initial stages and have made first contact with Delivery service provider X and Delivery service provider Y regarding platform work. Our priority is to generally inform employees, for example about their rights and that they even have the possibility for organisation. Only once organised can we discuss issues such as collective agreements.’⁶⁷

Additionally, the European and international component of platform economy regulation is increasingly subject to discussion by trade unions and actors associated with them. From a trade union perspective, the main challenges here are primarily in terms of the transnational activity of online portals, which potentially allows circumvention of minimum wages, working hours, taxes and fees. One interview partner explicitly points out the ‘European Agenda for the Collaborative Economy’⁶⁸ and supports the approach taken there:

‘[...] among other things, criteria for platforms are outlined which could and should be complied with as part of the general terms and conditions which the platforms have imposed on themselves. This means minimum requirements for general terms and conditions of platforms. We consider this a very welcome approach, and, for example, this could be a possibility where something can happen at the EU level.’⁶⁹

The positive assessment of European and international initiatives is shared by an academic expert interviewed:

‘Perhaps at the EU level we have made more progress so far. You have mentioned the European Commission, I have myself been in contact with ILO, International Labour Organisation, of the UN, I believe. I know that the international and European employer’s associations are already in exchange with each other for a while. In my opinion, this indicates an at least comparable, if not a more advanced level than what we currently have in Germany. It is my subjective perception that the international dialogue is considerably more progressive than is partially the case for the national dialogue. However, unfortunately not to a legally binding extent, as the EU is still relatively far from passing any laws or such. One is broaching and closing in on the issues at hand, but the dialogue is noticeably more advanced than is the case here.’⁷⁰

⁶⁶ See Klebe (2017).

⁶⁷ Interview 6.

⁶⁸ See European Commission (2016).

⁶⁹ Interview 5.

⁷⁰ Interview 9.

In this context, the trade union-linked Hans Boeckler Foundation pleads for the tax liability of platform businesses based on the 'buyer principle' (*Bestellerprinzip*), stipulating that taxes and social security contributions have to be paid where the client resides, not taking into account the location of the platform or the platform worker. This would reduce the risk of evasion of both taxes and social security contributions.⁷¹

The interviews with trade unionists also indicate quite clear expectations regarding the role of platform providers, which - for instance - aim at reversion of the burden of proof in determining the status of crowdworkers:

*'In my opinion, platform providers have to state to what extent crowdworkers [...] are indeed freelancers. [...] we must rethink the freelance status, economic dependency, and perhaps even digital dependency. Here we have a substantial discussion regarding the actual status of freelancers in instances of fixed prices and an organised market presence [...]'*⁷²

Moving to professional associations of the self-employed, most of them do not have a uniform position on the platform economy at the time of writing. Only in cases where certain occupational groups are directly impaired by crowdwork do their stakeholders plead more clearly for regulation of social security and minimum wages.⁷³ The *Bundesarbeitsgemeinschaft Selbstständigenverbände* (BAGSV, Peak Association of Associations of the Self-Employed) - a newly-founded (2017) umbrella association with about twenty freelancer associations as members, which in aggregate represents 100,000 individual freelancers - currently has no position paper regarding the platform economy.⁷⁴ In its own view, the *Allianz für selbständige Wissensarbeit* (ADESW, Alliance of Self-Employed Knowledge Workers, a member of BAGSV) unites 'leading service providers for the project-based use of highly qualified freelance knowledge workers', and additionally focuses their activities on established forms of freelance and self-employed forms of gainful employment (classical 'freelancers').⁷⁵ The *Verband der Gründer und Selbstständigen Deutschland* (VGSD, German Association of Founders and Self-Employed) is also not strongly involved with the topic. The association refers to the fact that platform workers are generally working part-time and not as solo self-employed, and that therefore only a regulatory need exists for those who are actually vulnerable.⁷⁶ This seems to leave platform workers' best chances of representation best covered by traditional trade unions like IG Metall and ver.di, which have evolved themselves to include freelancers and started to work in the field rather intensively, as observed by an independent expert:

'There are these initiatives of IG Metall for instance, which are not that successful. There is no central actor. The question is also whether it would even work with a central actor, or does it require a different approach (...) Essentially, the perspective of IG Metall and its initiative Faircrowdwork is that they do not adopt a position of

⁷¹ See Jürgens et al. (2017), p. 37.

⁷² Interview 16.

⁷³ See e.g. positions of the 'Allianz Deutscher Designer' (AGD), cited in Greef/Schroeder (2017), p. 39.

⁷⁴ See <https://www.vgsd.de/bagsv2/>

⁷⁵ See <http://www.adew.de/wofuer-wir-stehen/>

⁷⁶ See <https://www.vgsd.de/vgsd-zu-anhoerung-ueber-click-und-crowdworking-in-nrw-landtag-geladen/>

*representative of employees. Instead, they provide a platform which facilitates the exchange among employees. This is the underlying idea. Of course, this is a much weaker form of representation than the traditional representation of interests. I do believe however, that there is no alternative. It is likely that it is not possible to do it differently than as a pooled or moderated process or to simply supply the infrastructure for the employees so that they can organise and exchange ideas amongst themselves.*⁷⁷

This positive assessment of IG Metall's pragmatic approach is shared by a second expert interviewed:

*'Personally, I would say that IG Metall has done a number of things as a trade union, such as the Code of Conduct which they have devised with German platforms. This is a considerable progress. The other big trade union, ver.di, is involved in many projects based on crowdwork, crowdsourcing and platform work. So basically, the two primary trade unions are doing relatively much and making some progress. Of course, these efforts could be intensified but due to the size of the respective institutions, significant results are to be expected and have already been published.'*⁷⁸

3.2 Discourse, perceptions and experiences on platform economy work among employer representatives

In general, no fundamental necessity for the regulation of the platform economy in Germany is seen by the employers to date. Against the backdrop of the currently poorly-developed sector - defined as a 'niche' (bitkom) or a 'peripheral phenomenon' (German Retail Federation/*Handelsverband Deutschland*, HDE) - the established employers' associations rather caution against preventive regulatory interventions in a potentially dynamic market, which could nip any innovation in the bud. They view platform work by solo self-employed primarily as a self-chosen, highly-independent and individually-tailored form of employment rather than one characterised by high uncertainty of its status in terms of labour law. At most, some sort of regulation could come into play for particularly vulnerable groups (as articulated by the German Association for Small and Medium-sized Businesses/*Der Mittelstand*, BVMV), as otherwise regulations would amount to an obstruction of self-employed platform workers (Confederation of German Employer's Associations/*Bundesvereinigung der Deutschen Arbeitgeberverbände*, BDA).⁷⁹

Accordingly, the traditional employers' associations consistently reject the regulatory proposals brought forward by the trade unions and deem existing regulatory frameworks as sufficient. In particular, the transfer of the notion of 'employee' as well as the inherent rights is not considered appropriate (General Association of the Federation of the Metal and Electrical Association/*Arbeitgeberverband Gesamtmetall*). At the same time, the definition of minimum

⁷⁷ Interview 8.

⁷⁸ Interview 9.

⁷⁹ This assessment seems understandable given the immense size differential between the German *Mittelstand* (small and medium-sized enterprises), which accounted for 55 percent of the net value created by German enterprises in 2015, and the hitherto relatively small footprint of the German platform economy. See in relation in particular Greef/Schroeder (2017) pp. 24-31, which offers an extensive overview of the employer positions towards the platform economy.

standards, minimum wages and a general social security obligation for platform workers is explicitly rejected. However, from several associations' perspectives, a mandatory and arbitrary (minimum) pension scheme - to avoid placing further burdens on the solidary community and to prevent the distortion of competition (German Industry and Trade Federation/*Deutscher Industrie- und Handelskammertag*, DIHK; German Engineering Federation/*Verband Deutscher Maschinen- und Anlagenbau*, VDMA; Bavarian Business Association/*Vereinigung der bayerischen Wirtschaft*, vbw; German Confederation of Skilled Crafts/*Zentralverband des Deutschen Handwerks*, ZDH) - indeed appears conceivable.⁸⁰

The stance of the German Confederation of Skilled Crafts constitutes a particularity, due to its firm criticism of a cut-throat competition between the crafts sector and the solo self-employed, as well as its positive view on the need for regulations to protect regular employment and ensure a level playing field. Providers of manual services in the platform economy could undermine qualification regulations as well as regulations on minimum wages, social security obligations and collective agreements, so that their offers can slightly beat the fair market value, while at the same time the crafts sector is bound to laws and regulations. The association considers targeted regulation to be necessary and therefore clearly deviates from the majority position of the German employers' associations.⁸¹

In line with the general employer's perception, the *Deutscher Crowdsourcing Verband* (DCV) - an association of a relevant number of major German crowdsourcing platforms - considers crowdwork to be a freelance activity. DCV advocates self-regulation within the crowdworking sector as a suitable regulatory framework and hence it is one of the signatories of the "Code of Conduct"⁸² (see also Chapter 2.3). Testbirds GmbH - a major "crowd testing" platform - laid the foundations for the "Code of Conduct" in 2015, when the platform operators approached DCV for assistance. In 2016, IG Metall assumed an advisory role in the "Code of Conduct" project. In 2017, DCV - in cooperation with its partners - introduced a mediation committee (*Ombudsstelle*) for the "crowd community", one of whose cornerstones is the "Code of Conduct".

The corporate parties involved in the Code of Conduct present themselves as a self-committed, permeable (accessible) and reactive network within social dialogue. Its objective is to serve as a supplementary benchmark along with present regulation. The principles agreed upon are legal conformity, clarification of the workers' responsibilities as a freelancer, fair compensation, an encouraging working environment (i.e. providing a user-friendly web interface), maintaining a decent tone ("netiquette"), upholding workers' flexibility and having a transparent scheduling, as well as clear procedures. Furthermore, the importance of data protection and general privacy is stressed. Finally, the Code of Conduct elevates data protection to an important aspect to be addressed, in view of the recently-passed EU General Data Protection Regulation (EUGDPR)⁸³, which creates the first instance of an overlap between present EU regulation and the platform economy.

⁸⁰ The perceptions of the employers' associations can mainly be found in policy papers and statements made by the associations regarding the aforementioned Green/White Paper discussions processes of the federal government. See e.g. the detailed statement of Bundesvereinigung der Deutschen Arbeitgeberverbände (BDA) (2015).

⁸¹ See Zentralverband des Deutschen Handwerks (ZDH) (2015).

⁸² See <http://www.crowdsourcing-code.de/>

⁸³ See <https://www.eugdpr.org/>

A representative of the platform employers' association emphasises both the significance of the Code of Conduct as well as the notion that it is in the platform industry's self-interest to contribute to the process of improving and maintaining decent working conditions:

*'It is the guardrails of paid crowdworking that have led to the adaption of the general terms and conditions of several significant platforms. [...] regulations stemming from community efforts, such as the Code of Conduct which is based on platform initiatives, have a higher chance of success. The only thing that is still lacking is client participation. However, they prefer to remain anonymous, because nobody likes to admit [...] that they work with crowdworkers, due to potentially causing unrest among the own workforce [...]. Yet, the leading personnel departments have quite a positive attitude towards the phenomenon.'*⁸⁴

This employer representative also has a clear idea about the prospective social dialogue - at both the European and national level - regarding the platform economy:

*'A three-pillar-model is essential, which results in the social partners not exclusively consisting of employer and trade unions, but also the self-employed workers as well, who represent a certain position within the forms of new-work. We have a lot of people with hybrid employment relationships, meaning they are on the one hand self-employed, and on the other as part-time subject to social security contributions. This must [...] be recognised and portrayed by pension providers and the social security system. Furthermore, there cannot be an initial assumption of bogus self-employment in single cases. There is a need for differentiation and clarification here. This three-pillar-model could at the very least create a much-improved political consciousness of the position and needs of self-employed persons. If this is legally enforced, then we are at a point which we would like to arrive at. Simply put, something must happen.'*⁸⁵

An academic expert interviewed on this topic also sees the main initiatives being taken by the social partners:

*'In principle, it can be seen within discourse between research, policy and trade unions. This results in IG Metall taking up a pioneering role in terms of projects settings, that there is at least an effort to bring platforms to the bargaining table. They try to involve crowdworkers and clickworkers and say: 'we lack a legal framework which we have in regular forms of employment. Nevertheless, we demand fair working conditions and therefore we tackle this issue via the Code of Conduct, where platforms can orientate themselves and can pay optional sums and can voluntarily inform crowdworkers on insurance matters and so on'. This means that this all happens on a rather voluntary basis, but it still signifies a first development in the right direction. What I primarily see is that scientific research and the trade union environment have made more progress here than policy-makers, who must follow suit. Apart from that, I mainly see the non-binding voluntary basis, where such positive developments and collective regulations develop out of.'*⁸⁶

⁸⁴ Interview 2.

⁸⁵ Interview 2.

⁸⁶ Interview 9.

3.3 Discourse, perceptions and experiences on platform economy work among public authorities

The current state of the German labour market is generally characterised by the beneficial effects of “an effective and unique combination of flexibility and rigidity”, while the outlook is likely to be challenged by the impacts of demographic and technological change.⁸⁷ The platform economy constitutes one of the expressions of technological change and finds itself at a very early stage of social dialogue. In this context, political actors cannot remain oblivious and engage in the ensuing discourse.

German administration at the federal and regional level exhibits varying levels of intensity of dealing with the issue of the platform economy.⁸⁸ At the federal level, the Federal Ministry of Labour and Social Affairs (BMAS) plays the leading role, initiating the initiation of the Green and White Paper discussion process around ‘Work 4.0’. It has undertaken an extensive assessment - with the cooperation of social partners, associations, businesses and research - of the current situation of the digital world of labour.⁸⁹ Even though the White Paper does not yet offer much concrete insights regarding detailed regulatory concepts, it offers three noteworthy aspects that are quite significant:

1. A new form of public reporting on the world of work with the involvement of academia and the social partners has been initiated by the White Paper, which should be more strongly focused on the change of work environments to permit the early identification of trends and establish a more solid data basis as a starting point for political decision-making (p. 13).

2. As an instruction for policy-makers, the White Paper explicitly formulates *‘to include self-employed individuals in the statutory pension insurance system alongside employees. The associated contributions must be assessed together with costs incurred in other social insurance systems, in particular statutory health insurance. Beyond provisions for old age, one-size-fits-all solutions will not meet the needs of everyone in self-employment. Legislators should therefore determine the appropriate level of protection which different types of workers need, and include them in labour- and social policy legislation accordingly. Looking to the future, it might be useful to base regulations for crowdworking on our long-standing, tried-and-tested regulations for home workers’* (p.12).

3. The White Paper recommends political action with the *objective ‘to support social partnership, collective bargaining coverage and the establishment of works councils. Rather than simply seeking to slow the erosion of collective bargaining coverage and staff representation which has been evident over recent decades, we should endeavor to reverse this trend.’*⁹⁰

By comparison, the parallel discussion process on ‘Digital Platforms’ initiated by the Federal Ministry of Economic Affairs and Energy (BMWi) is largely limited to issues related to competitive and regulatory aspects, whereas it leaves the actual labour market aside.⁹¹

⁸⁷ See Rinne/Schneider (2017).

⁸⁸ The following overview is in part based on Greefs/Schroeder (2017), pp. 52-63. This study on behalf of the BMAS highlights the core positions of all relevant German political actors with respect to the platform economy.

⁸⁹ See Federal Ministry of Labour and Social Affairs (BMAS) (2015, 2017).

⁹⁰ Federal Ministry of Labour and Social Affairs (BMAS) (2017), p.13

⁹¹ See BMWi (2016, 2017) and Greef/Schroeder (2017), p. 60.

Elsewhere, however, the issues of civil, data protection and product liability law, as well as legal consequences for 'Industry 4.0' - seen from the perspective of the BMWi - are touched upon. In essence, the discussion revolves around the extension of the Home Work Act to include crowdworkers, to permit the co-determination of self-employed persons who find themselves in a comparable situation to that of employees through reforms of the Works Constitution Act, and to integrate the solo self-employed in social security systems to take account of the declining importance of traditional employment relationships in the era of 'Industry 4.0'.⁹²

Regarding general government policies, the coalition agreement of the new federal government in power since spring 2018 expresses the concrete intention to improve social security for the self-employed via pension plan obligations (in line with the statutory pension scheme as well) and reduced health insurance contribution rates. The extent to which corresponding regulations will be relevant for the platform economy remains to be seen.⁹³

A quite heterogenous engagement with the issue can be observed at the regional level, which is by no means always in accordance with party political baselines. Some federal states have not yet explicitly taken up a position, while others are limited to the formulation of problem awareness. In a diverging role, the Senate of Berlin offensively positions the German capital as a 'laboratory of reality' for the platform economy and has already developed correlating and very concrete design proposals. They include - for instance - the principle of territoriality (German law including minimum wage applicable to platform work in Germany), an *AGB-TÜV*' (independent inspection association) for the assessment of the terms and conditions of platforms, an entitlement to a digital work certificate or reference and professional development and training, the creation of a portal for the comparability of professional qualifications, as well as the extension of the Works Constitution Act onto modes of employment with a comparable status to regular employees.⁹⁴

As at the level of regional governments and ministries, the amount of attention devoted to the crowdwork phenomenon strongly varies within the spectrum of political parties.⁹⁵ The necessity for regulation within the digital economy is not entirely contested by any political party. By contrast, parties from the "left" to the "right" join the argument that namely social security issues and the risk of old-age poverty are in need of thorough regulation. The three major left-wing parties - the Social Democratic Party (SPD), the left party (Die LINKE) and the green party (Bündnis 90/Die Grünen) - share the common goal of a joint social insurance for all employees and self-employed persons, accessible to platform workers as well as freelancers. Going a step further, the SPD is the only party to propose solutions for the protection of occasional gig workers. This could be accomplished by contributions of platform providers and voluntary contributions of clients of services provided.

⁹² See BMWi (2016).

⁹³ See Bundesregierung (2018), p. 93. In addition to the political side, other public actors are increasingly participating in the German debate. The German accident insurances serves as a current example, which, in light of the mostly uninsured crowdworkers, demands legislative amendments in order to include them in the statutory accident insurance and, following the French example, to make platform operators liable for contributions. See *Deutsche gesetzliche Unfallversicherung* (2018), p. 1.

⁹⁴ See *Senatsverwaltung für Arbeit, Integration und Frauen* (ed.) (2016a,b).

⁹⁵ See Greefs/Schroeder (2017), p. 44-63 for further details.

On the other hand, politically-conservative parties have diverging perceptions of social security regulation for the platform economy. While the Christian Democratic Party (CDU) argues in favour of an obligatory pension scheme, which is in effect as long as an entitlement to a basic pension exists, the Christian Social Union (CSU) - the smaller, regional (Bavarian) counterpart of the CDU - refrains from formulating specific regulatory proposals, assuming a rather normative stance. At the same time, the Free Democratic Party (FDP) proposes a completely new pension system for Germany taking into account the blurring of dependent and self-employment.

Besides this core topic of a platform-ready social security system, four other key issues are identifiable within the political discourse: the regulatory framework, wages, workers' participation and data protection. Generally speaking, in contrast with conservative parties, more left-wing parties are quicker to identify regulatory necessity. Regarding the regulatory framework itself, the positions of the political parties differ in terms of both whether present regulation is sufficiently capable of handling the inherent issues of new forms of digital labour as well as the nature of additional regulation.

The FDP advocates a new regulatory framework characterised by the deregulation of present rules as a way of encouraging the diversity of new forms of labour in a freely-evolving labour market. The CDU adopts a position somewhere in between a laissez-faire and the regulatory friendly approach promoted by the left-wing parties, while pointing out the importance of unhindered innovation. With the mandate at hand to secure an overall competitive labour market on the one hand avoiding detrimental social frictions, on the other hand political parties are faced with a predicament of protecting working standards without hindering dynamic developments in favour of the overall economy. One innovative idea stems from the FDP, whereby the liberal party proposes the implementation of so-called independent "regulation pilots" who should assess the necessity of de- (and re-) regulation. At the same time, employee-oriented parts of the CDU share the view of crafts associations (e.g. ZDH) that fair competition among "old" and "new" actors is on risk due to the platform economy thwarting established standards in the field. SPD, Greens and LINKE aim to secure fair competition by curbing precarious work and other "unintended side-effects" of the platform economy.

It is unsurprising to find diverging perspectives between but also within political parties, as the interviews conducted show. In an effort to facilitate a more consistent approach, political parties have appointed internal expert speakers, commissions or task forces concerned with the emerging issues of digitisation and its implications. This is expressed by a politician as follows:

*'We do interfere in the discourse. As a matter of fact, since 2010, all political parties and organisations have some sort of working groups, associations or experts on the issue of digitisation and its implications for our society.'*⁹⁶

In sum, the interviews with policy-makers reveal a gap between scepticism founded on matters of employees' rights and access to social security and optimism grounded on the potential of digitisation in transforming society.

⁹⁶ Interview 3.

The political representatives interviewed depict - among other things - a politically difficult balancing act between premature regulation and a political wait-and-see attitude, in addition to inner-party differences in positions:

*'On the one hand, we do indeed see the benefits of organising work in a more flexible manner. This is based on a traditional understanding that work should be better and more flexibly spread and that an easier entry and exit of the labour market is welcome, when accompanied by social security coverage and compliance of social standards. Which leads to the downside on the other hand, which so far has not been politically ensured, but must be tackled. The core demand should initially be that the standards found in analogue labour organisation should also be applied to digital equivalents. Here issues such as bogus self-employment arise, which also require policy responses. [...] This expansion of standards found in the analogue world of labour to the digital one, cannot, however, come at the expense of detriments in security. We do not currently have all the answers, as it is an issue which still requires extensive debate.'*⁹⁷

The same politician also points out the following:

*'There is a divergence of perspectives, whether more sceptical or more optimistic, regarding issues revolving around digitisation. Socio-politically-oriented colleagues are [...] rather sceptical, as they see significant difficulties in terms of social security and employee rights. Others have a more technology-based optimistic perspective, who express the regulatory necessity due to the inevitability of digitisation. I am convinced that a stronger organisation of goods and services via platforms will happen, and here our role is to get the negative peripheral matters under control. At the same time, we cannot kill innovation through over-regulation. This presents quite a political balance act.'*⁹⁸

This balancing act is illustrated by the example of the significant competition between the traditional manual crafts and platform workers, which at the same time offers new opportunities for employment:

*'We have to ascertain that there are certain platforms, where craftsmen offer their services and as a result, a local price competition is transformed into a nationwide or European-wide one. Naturally, this tends to lead to a downward spiral, but at the same time, it creates opportunities for businesses to gain access to new markets. In my opinion, it is merely the potential risks that are at the forefront of political discourse.'*⁹⁹

A strengthened social dialogue within the platform economy is considered to be desirable, although at the same time it is assessed as difficult to organise:

'I can imagine it to be possible. I am also of the opinion that it is desirable, but I am not quite sure how this could be accomplished. I can see that the employer-employee relationship is more in balance in the classical industry than in the new forms. For this

⁹⁷ Interview 3.

⁹⁸ Interview 3.

⁹⁹ Interview 3.

reason, I am not sure if the employers would want to readily get engaged. Secondly, whether it would even be possible to uniformly organise the employees. There must be a common basis of interests in order to be able to bargain. I believe there is generally bigger scepticism placed on the side of the employees.’¹⁰⁰

At the same time, a cautious confidence is voiced regarding the social self-discipline of platforms:

‘I believe that platform operators are increasingly confronted with their social responsibilities and functions and are thus discussing these internally. However, I think we are still at a very early stage.’¹⁰¹

3.4 Summary

Policy-makers and political parties assume a variety of positions regarding the platform economy, which are generally embedded in the more general digitisation context. Positions range from normative statements to the adoption of a moderating role or even regulatory suggestions. In general, policy-makers see the necessity of a dialogue between platform operators and platform workers that balances between sufficient regulation to achieve decent working conditions and sufficient freedom to allow creative destruction to unfold its optimising effect in the labour market. The trade unions’ response is more straightforward, emanating from mainly educating platform workers on their rights and obligations as they arise from the current regulatory framework and involving legal action when necessary. Concrete contested topics include the establishment of works councils, the prevention of ‘precarious’ employment and the elimination of so-called bogus self-employment, a familiar topic that gains new momentum within the platform economy. Platform operators that enter markets driven by a combination of technological factors (i.e. applicability of technologies) and economic considerations (optimisation in matching of supply and demand) are confronted with the fact that some - but not all - of their workers/users are seeking legal representation and make headway into self-organisation. They also respond in different ways, trying to leverage the space given to them by current regulation and its possible gaps.

Overall, we are currently witnessing a process of mobilisation by stakeholders as policy-makers come to terms with the new topic and its possible impact in the labour market. In particular, unions adjust their policies and widen their clientele in some cases and platforms adjust to a strengthening push-back. Different forms of social dialogue within the platform economy are broadly considered to be desirable and achievable, albeit probably in settings that differ from established industrial relations.

¹⁰⁰ Interview 3.

¹⁰¹ Interview 3

4 Discourse, perceptions and experiences on work on the platform economy among platform owners and their workers

4.1 Discourse, perceptions and experiences on platform economy work among platform owners

Naturally, the self-conception of platform operators in Germany strongly varies depending on their respective business models and the targeted group of platform workers. Initiators of platforms that merely provide market places with a new technology-driven basis but do not act as a broker for clients and contractors (such as Airbnb) do not play a role in the scope of this study. Even platform providers that go one step further in offering an even wider range of services have hitherto prioritised their function as an intermediary or technology provider with the objective of lower transaction costs and in this light they predominantly negate a regulatory need.¹⁰² This means that they are in line with positions taken by international platform businesses, which also see themselves as an intermediary between clients and service providers, whereby contractors are under no circumstances to be seen as their employees.¹⁰³

In this context, one has to distinguish between platforms for more sophisticated and those for more elementary services. Platform operators offering higher-grade services frequently emphasise their function to dismantle entry barriers for solo self-employed and freelancers and to offset limitations of space and time via the new forms of employment. Platform businesses value the latter in particular, as a valuable tool of combating a lack of specialists, regional mismatch constellations on the labour market and structural change, as well as temporal obstacles to mobility such as health problems or family obligations of platform workers.¹⁰⁴

How energetic such platforms will develop - irrespective of their overall minimal importance in the labour market - is demonstrated by the example of Clickworker: having started in 2008 with about 2,000 registered clickworkers, nowadays there are over 750,000 registered contractors worldwide and 150,000 in Germany, active in areas such as web research, text production, surveys, data maintenance and comparable tasks.¹⁰⁵ Platforms such as Expertcloud, Eebcrowd, Jovoto and Crowd Guru - being active in the areas of information and communication technology or creation and design - view their advantage in being the intermediary for services that are in very high demand, for which the market is willing to pay adequate prices so that platforms themselves can offer 'fair' fees or even qualification and promotion opportunities.¹⁰⁶ Apart from that, the platform economy complies with a large highly-qualified labour force or even students¹⁰⁷ in accordance with a maximal individualisation of its

¹⁰² See Federal Ministry of Labour and Social Affairs (BMAS) (2017), p. 57.

¹⁰³ See Leist et al. (2017), p. 37-46 and supplementary interview-based information in *Senatsverwaltung für Arbeit, Integration und Frauen* (ed.) (2016). See also Arnold et al. (2016); Mrass/Peters (2017).

¹⁰⁴ See *Senatsverwaltung für Arbeit, Integration und Frauen* (ed.) (2016b), pp. 25-26 (interview with CEO "Webcrowd"), pp. 26-27 (interview with CEO "Expertcloud"), pp. 28-29 (interview with CEO "Crowd Guru") and interview with CEO "MyLittleJob" in Duif (2018).

¹⁰⁵ See Arnold et al. (2017), p. 30.

¹⁰⁶ See e.g. interview with CEO "Jovoto" in *Der Standard* (2017) and interview with CEO "MyLittleJob" in Duif (2018).

¹⁰⁷ The platform "MyLittleJob" at this point of time explicitly addresses this target group: <https://www.mylittlejob.com/en-uk/>.

(demanding) work. Third, platforms and platform workers profit from the fact that the lack of experts causes the power structure to shift in favour of the contractors, whereby businesses could visibly have to compete for the services of crowd specialists.¹⁰⁸

From the perspective of platforms, the interests of specialised experts and clients are better matched. Experts work jointly in web-based teams, exchange views in the community and educate or train themselves further. Mainly smaller and medium-sized businesses that do not possess the internal resources and are potentially without a chance in the competition for experts can fall back on a needs-oriented network of experts. Against this backdrop, providers of higher-grade platform work view their role as being a trendsetter in the professional world of experts:

*'Many people do not necessarily see platforms as a place of employment. They see interesting projects, to which they would not be able to gain access to through a traditional agency career. We also witness that many view it as a type of pastime with a social aspect. This social aspect has often been underappreciated, however it is a decisive element. The old understanding of work is not compatible with that of those engaged on our platforms. I think this is partly due to the fact that we address an entirely new generation of talent, who do not have the traditional standards associated with their career, such as their parents might have.'*¹⁰⁹

Many opportunities for employment have arisen from new technological possibilities:

*'The challenge for platforms is to keep a balanced relationship between crowdworkers and work tasks, in order to ensure the satisfaction of everyone involved. The objective is to keep the fluctuation of crowdworkers as low as possible, to ensure quality assurance and to be able to acquire a decent amount of interesting work tasks.'*¹¹⁰

In turn, the platforms approach the aspect of fairness in a technology-based way by not only utilising the extensive usage of algorithms for the matching of clients and contractors, but also for performance and remuneration assessment as well as enabling promotion prospects. Thereby, technology itself becomes an argument against the need for regulation.¹¹¹

At the same time, it is apparent that platforms are continuously adjusting their business model in a market-oriented way and in exploitation of the changing technological possibilities, while at the same time keeping an eye on the satisfaction of platform workers, with the purpose of improving their prospects of success and not to be overtaken by the market. Far from constituting a separate sector, platforms see themselves challenged in a twofold way by the technological change: on the one hand, work that can currently be done via platforms could be handled in the future using AI (for instance, text production, translations, simple programming, voice and image recognition). This could lead to work via platforms being made redundant at this juncture. On the other hand, precisely this could place pressure on them to

¹⁰⁸ See Senatsverwaltung für Arbeit, Integration und Frauen (ed.) (2016b), p. 26 (interview with CEO "Webcrowd").

¹⁰⁹ Interview with CEO "Jovoto" in Der Standard (2017).

¹¹⁰ See Senatsverwaltung für Arbeit, Integration und Frauen (ed.) (2016b), p. 28 (interview with CEO "Crowd Guru").

¹¹¹ See Senatsverwaltung für Arbeit, Integration und Frauen (ed.) (2016b), pp. 25-26 (interview with CEO "Webcrowd") and interview with CEO "MyLittleJob" in Duif (2018).

permanently question themselves and anticipate technological- and content-related need for adaption.¹¹²

Providers of more high-grade platform work generally appear to be more prepared for self-commitment or moderate regulations when it comes to minimum wages, social security, workers' participation or comparable aspects.¹¹³ Thus, one can consistently come across providers of higher-grade crowdwork among the signatories of the 'Code of Conduct', such as the platforms Content.de, Crowd Guru, Clickworker, Bugfinders, Streetspotr and the initiator itself, Testbirds.¹¹⁴

Nonetheless, in the sector of manual services, MyHammer is a noteworthy platform that has selectively taken up certain aspects of the politically-discussed need for regulation (but which now locks itself from further regulation). MyHammer initially entered the market as an intermediary of manual work tasks and services with an auction process, through which it has antagonised advocacy groups. However, the business model has drastically changed in the meantime: since 2013, the platform abstains from any kind of exertion of influence on pricing, and rather purely operates as a market place for approximately 20,000 crafts businesses and about 45,000 processed work tasks over MyHammer each month. Craftsmen looking for work tasks or companies searching for clients pay a monthly fee to receive the opportunity to use online resources of the platform for customer acquisition. Potential clients can place orders online and receive a quote, and they can further orientate themselves according to qualification level and the rating of the companies. MyHammer emphasises the additional benefit of its offer in the form of the prevention and better control of the shadow economy. No additional regulatory need is recognised by MyHammer regarding its own standards, but indeed apparently for a general correction of liability rules for the platform economy.¹¹⁵

Helping considers itself a brokerage platform for household services being offered by over 5,000 registered persons. The platform offers particular points open for critique regarding the legal status of cleaning personnel, wage dumping and missing social security coverage. In contrast to MyHammer, they determine the prices themselves, which could in principle range somewhere below the statutory minimum wage if calculated as hourly rates. No task can come about without the platform. Helping claims to make the market transparent for both private clients and contractors, in order to create an alternative to undeclared work by only permitting cleaning personnel with a status of solo self-employed and with a trade licence. At the same time, a liability and accident insurance covers helping personnel, even though the platform is in direct competition with the shadow economy. A critical view is placed on the bureaucratic efforts and expenses resulting from solo self-employment. Helping is opposed to burden the low-paid cleaning personnel with additional high social security contributions. At the same

¹¹² In this context, several CEOs of platforms indicate the probability of the small-scale gig economy being just a temporary phenomenon and that it should gradually fall to the AI. See interview with CEO "Jovoto" in Der Standard (2017) and Senatsverwaltung für Arbeit, Integration und Frauen (ed.) (2016b), pp. 25-26 (interview with CEO "Webcrowd").

¹¹³ See interview with CEO "Jovoto" in Der Standard (2017).

¹¹⁴ See <http://crowdsourcing-code.com/>. These platforms surrender to a critical evaluation on the portal <http://faircrowd.work/de/platform-reviews/>.

¹¹⁵ See Arnold et al. (2016), pp. 23-25.

time, Helping is open to models that make provisions for a liability to pay contributions for clients, which thereby de facto take up the role of an employer.¹¹⁶

In our interview, a platform owner active in household services emphasises the issue of the inclusion of solo self-employed in the statutory pension scheme:

*'We are faced with a tough fight to convince people that it would be sensible to obtain a trade licence to be able to work legally. This would bring a higher income, which is also good for us. But then consequently, demands are made for instance that solo self-employed should contribute to the pension scheme. While it does initially seem reasonable, those self-employed usually do not have a high income. While there are more contributions, at the end no benefit can be seen, because everyone would have a basic provision. The whole perspective is quite hypocritical. Our interests are in line with those around which the discourse revolves. A differentiated consideration, of what is platform-driven and what is caused by social systems, would be very useful.'*¹¹⁷

At the same time, a general need for action is formulated, with reference to the situation in France:

*'In France we are also sitting at several roundtables, about how to better utilise digitisation, and how it can aid in organising services in a more efficient manner. In the case of contributions to social security and us technology providers [...], it demonstrates that it is possible, when solo self-employed are decently integrated in the social security system and are placed in a position to be able to pay these contributions by a tax benefit of not 20% but rather 50% on household-related services. This would be the role model for Germany.'*¹¹⁸

The bottom line of the interviewed platform provider gets to the heart of the common position within the platform economy:

*'I believe that systemic improvements have to be made, independent from the platforms themselves. Also, no special labour laws for platforms are needed. Platforms either provide or commission freelancers, or they simply employ people. I do not believe that platform specific regulations address the issue the right way.'*¹¹⁹

4.2 Discourse, perceptions and experiences on platform economy work among platform workers

As shown above, platform workers are identified as being significantly younger compared with the German working population.¹²⁰ Several studies confirm that platform workers - especially crowdworkers - tend to be well educated. Among all platform workers, 48 percent of those who participated in a survey indicated that they possess at least a bachelor's degree.¹²¹ 44 percent

¹¹⁶ See Arnold et al. (2016), pp. 25-28.

¹¹⁷ Interview 1.

¹¹⁸ Interview 1.

¹¹⁹ Interview 1.

¹²⁰ See Bertschek et al. (2016).

¹²¹ See Leimeister et al. (2016).

of workers on microtasking platforms have - or are striving for - a higher education or Ph.D.¹²², while the percentage of those involved in more complex tasks with a completed university degree is at 50 percent¹²³.

Furthermore, in addition to their work on platforms, platform workers tend to be either traditionally employed or in professional training. Platform work constitutes an opportunity for additional income for 79% of all platform workers. Platform workers often appear to be simultaneously active on multiple platforms. The average monthly income depends on the type of platform, ranging from 144 Euro on microtasking platforms to 663 Euro on market place platforms and peak earnings of 1,500 Euro per month, which generally requires a full-time commitment and high average working hours of up to 80 hours per week. 71 percent of platform workers earn less than 500 Euro.¹²⁴ Of those who rely on platform work as their sole source of income, 66 percent cover their own health and unemployment insurance, while 53 percent cover their own pension.

Interestingly, the majority of platform workers would take up permanent employment if given the opportunity. As a preliminary conclusion, the scope of platform work in Germany is marked by a very limited supply and demand. The majority of platform worker use the platforms as a means of gaining an additional income.

The key motives are often based on the inherent flexibility in terms of content, time and spatiality,¹²⁵ as well as the opportunity of a well accessible additional income presented by work on platforms, as stated by a food delivery courier during the focus group discussion:

*'After my high school graduation, I was searching for a job. At first full time, but after a while I was happy with anything. I was applying for a lot of waitress jobs and they all generally required experience which I did not have. Then I applied for a job at Foodora, who directly informed me that they will take anyone, as long as you manage to ride a bicycle half decently...and I enjoy both the exercise and the friendly colleagues.'*¹²⁶

A survey conducted on the experiences of freelancers who are members of Verdi identifies several aspects of platform work that are perceived negatively, ranging from the refusal of payment, loss of copyright, price dumping, information imbalance to data protection.¹²⁷ The respondents primarily criticise the platforms themselves, but they also mention the market conduct of clients, as well as underbidding by fellow platform workers searching for offers.

This is in line with information gathered by interviewing a crowdworker for this study, who works in the translation sector and stresses the volatile nature of platform work and a range of significant advantages and drawbacks related to working as a freelancer. While the high level of flexibility is noted as the primary advantage, the issue of social isolation is referred to as both a negative and positive aspect due to the particular nature of online crowdwork, as state by our interviewees:

¹²² See. Bertschek et al. (2016).

¹²³ See Al-Ani/Stumpp (2015).

¹²⁴ See Leimeister et al. (2016).

¹²⁵ See Bertschek et al. (2016).

¹²⁶ Interview 17-2.

¹²⁷ See Pongratz/Bormann (2017).

*'On the one hand, it is indeed the case that I enjoy a particular freedom and flexibility. For instance, it allows me to travel or to spend time with the family and still be able to work. However, on the other hand, a significant level of uncertainty is involved. I can never be sure how the situation regarding available work tasks develops. Thus, I am hardly able to pay social security contributions. While it does sometimes work out, it is not on a level where I can regularly incur liabilities or obligations. [...] Social isolation is also an aspect, both in a positive and in a negative way. However, I must say that his freedom has spoiled me in a way and I believe that I could not fit into every working environment anymore. I do not know if I would like to do a regular 9-to-5 job, as I enjoy being able to organise my day as I see fit.'*¹²⁸

*'I believe it reflects the zeitgeist. On the one hand, it allows the reaching out to many people with very little effort, on the other hand for those searching, it is an opportunity as well, as it offers a wide selection. Ultimately, word of mouth still prevails...but these platforms are a good option for presenting oneself and to be able to offer the customers a decent range of possibilities... The disadvantages can be found within the same outlined advantages. Simply put, the extensive supply of offers.'*¹²⁹

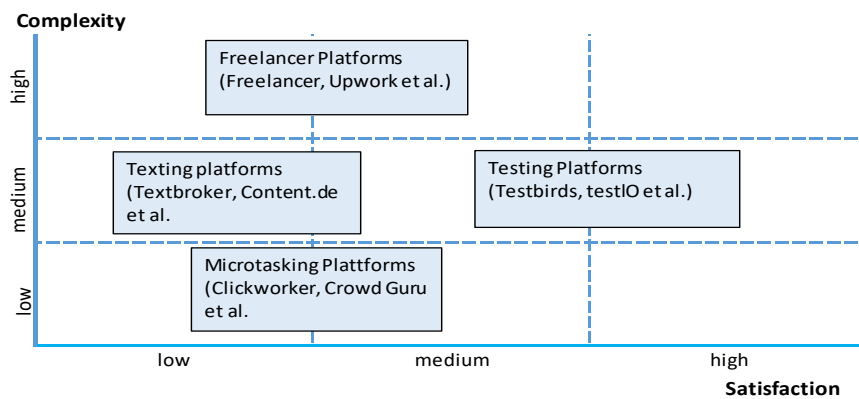
According to our interviews, platform workers engaged in qualified projects with text writing, translation or similar suffer from a lack of professional exchange of opinion and experience among each other. They tend to view themselves as “single combats” with substantial competitive thinking involved due to uncertainties with respect to acquisition, the need to make cheaper offers and continuous earnings. Communication with both supervisors and customers appears to be limited due to the structure of the platforms. Freelancers are confronted with a severe degree of uncertainty, particularly for those who rely on their freelance work as their sole source of income. The work load strongly fluctuates and relies substantially on the assignments at hand. This can potentially lead to difficulties in covering social insurance on a regular basis. The uncertainty creates significant pressure on the freelancer to not disrupt his/her flow of income due to illness.

At the same time, however, our interviews implicitly confirm earlier findings that the level of crowdworkers' satisfaction increases with the qualification of their tasks and income perspectives. There is a correlation between the level of work complexity and work satisfaction, as the figure below shows.¹³⁰

¹²⁸ Interview 4.

¹²⁹ Interview 11.

¹³⁰ See Keuler/Kratz (2018).

Figure 9: Job Satisfaction of Crowdworkers Depending on the Type of Platform

Source: Ver.di (2017b), p.3.

This may be directly related to the perceived motivation of crowdworking: here, according to (non-representative) surveys, the pleasure of diverse work, opportunities for additional income, new challenges, opportunities for further training and the acquisition of new clients is essential for not only those crowdworkers engaged in the creative and IT sector, but also at other freelance platforms with high qualification requirements.¹³¹

Accordingly, surveys indicate that this group of workers mostly formulates expectations addressing traditional trade unions, which clearly differentiate themselves from those of traditional representations of interests, and take up an arbitrary role that consults and - if required - resolves conflicts. However, it should be noted that within this interpretation the widely-absent trade union presence and the mostly short duration of platform work of respondents play a role, so that an increasing need for support could be plausible. Furthermore, platform workers may tend to overestimate both their willingness and ability to organise themselves as well as their assertiveness without trade union support. This could open up perspectives for cooperation between crowdwork associations and traditional trade unions.¹³²

At the level of less-qualified services that are organised via platforms, aspects such as competitive pressure on prices as well as poor payment, unpaid work and lacking social security coverage with rather limited content-related claims play a central role from the platform workers' perspective. The lack of customer loyalty and personal contacts is also complained about. Despite the first successful establishment of a works council at a German platform operator, food delivery couriers appear to be particularly unsatisfied with their working conditions:¹³³

¹³¹ See Ver.di (2017b), p. 3 and more detailed Pongratz/Bormann (2017) and Al-Ani/Stumpp (2015).

¹³² See Al-Ani/Stumpp (2015), pp. 25-26.

¹³³ See Pantel (2018).

'Except for the bag and the clothes, such as the jacket, one must provide the important assets, such as the bicycle and a phone, oneself...In two months we will have a new system, which provides for a 25 cent payment on a virtual account, for the purpose of repairs, for every hour. This means that after every three months or so, I will have enough for a new tyre.' ¹³⁴

A discrepancy is expressed by crowdworkers active on text work platforms, whose expectations are barely covered by the working conditions and earning opportunities, and who see themselves as being increasingly at risk by AI. ¹³⁵ The desired demands such as access to pension funds, health care and issues revolving around wages resonate with traditional issues. According to expert views as well as platform workers, unions must evolve and gain a better understanding of the issues at hand to better consult and facilitate those engaged in the platform economy.

'I believe it is things like the Writers Association that concerns itself with improving the status of copywriters. How can we determine average remunerations and how can copywriters position themselves, so that one must consider their activity as a creative output...for instance, there are regular meetings of local copywriters, where they exchange any difficulties in acquiring customers...these discussions are held in a very general manner and no one really wants to talk about the biggest challenges.' ¹³⁶

At present, social dialogue is still in its infancy, although attempts to gain some sort of collective representation have been made to some extent. It is perceived as difficult due to a number of challenges, yet desirable and achievable. A crowdworker makes the following points:

'I believe it to be possible, but it must happen on an international level, some sort of international employee representation. The traditional unions however, as far as I know, are organised either on a national or a company-based level. This international focus is essential, because it reflects the transnational characteristics of the internet.' ¹³⁷

4.3 Summary

Unsurprisingly, both platform owners and platform workers show some divergence regarding the desirability of institutional changes, i.e. more or less regulation. Typically, platform owners see themselves as intermediaries, with platform workers as self-employed service providers. However, there is some diversity regarding preferences for regulation or standard setting in the camp of platform owners. Some platforms - in particular those involved in more sophisticated services and professions - seem more open to these issues. Moreover, with respect to platform workers, one can identify notable heterogeneity in perspectives on the issue of regulation and social protection.

¹³⁴ Interview 17-1.

¹³⁵ See Ver.di (2017), p. 3 and Pongratz/Bormann (2017).

¹³⁶ Interview 11.

¹³⁷ Interview 4.

There is a strong motive behind flexible and autonomous working, appreciating the possibility to acquire additional projects and income online, a view shared by many platform workers, in particular those with considerable market power due to skill profiles valued by the market. Others rather complain about low pay, irregularities, isolation or a lack of (affordable) social protection. Regarding industrial action, gig workers in the local economy seem to be more likely to organise than pure online or crowdworkers, although even there the first steps towards collective articulation of interests are evident.

There is some expectation that trade unions should facilitate and support collective organisation. Nonetheless, actors do not expect traditional industrial relations and collective bargaining arrangements to emerge in the foreseeable future; rather, it seems plausible to expect some sort of standards for platform work, at least in the more complex, specialised area, as there is also the perceived need to attract qualified labour and ensure some professionalism.

5 Conclusions and policy recommendations

This study provides an up-to-date overview on the status of the platform work and emerging industrial relation in this sector. First, one has to note that the platform economy is a small but emerging segment, yet its current size seems to be close to the lower end of measurability. Second, it is necessary to acknowledge that the current considerations and debates on the platform economy in Germany take place in the comfort of a robust labour market within a still-expanding business cycle. The situation might look different when facing an eventual economic downturn.

The limited empirical evidence available to date shows considerable diversity in terms of platform-based activities and business models, ranging from elementary to complex tasks, from online work to local gig economy work. Regarding individual motivation, evidence at hand points at a generally positive assessment of platform work as a highly flexible and sometimes autonomous type of work that benefits from the possibility to generate additional income. In fact, most platform workers use online intermediation as a supplementary mechanism besides their main jobs, and often platform work is only done during a transition phase in the life course. In line with task complexity and skill requirements, working conditions considerably vary. The scarce empirical evidence calls for a close observation and evaluation of the further development of these activities.

Against this backdrop, industrial relations in the platform economy can only be described as emerging at best, and they are likely to develop both leveraging but also challenging traditional models. Gig workers in the local economy seem to be more likely to organise via personal or virtual networks compared with online or crowdworkers, but there are first steps towards a collective articulation of interests. Some very limited elements of collective self-organisation of platform workers can be identified. We can observe (a) interest articulation initiatives by traditional and autonomous, grassroots trade unions (e.g. in the food delivery sector) and (b) support of established trade unions focusing on promoting fair crowdworking conditions, e.g. by offering tools to rate platform behaviour. The support by established trade unions in some

dimensions is broadly in line with expectation of many platform workers. Hence, interesting combinations of new forms of organisation and engagement by traditional unions are currently co-evolving. In Germany, collective bargaining takes place within the autonomy domain of social partners so that the further development of industrial relations in the platform economy depends on platform owners or their associations as well as platform workers and their representatives (established or grassroots unions).

Despite a general tendency of platform owners to avoid stricter regulation, some willingness of certain platforms and their associations can now be found regarding the entry into a social dialogue and the discussion of standards for crowdsourcing. This is particularly noteworthy in the case of platforms that rely on a pool of skilled workers. Of course, established service providers that consider themselves to be potentially put under increasing pressure by platforms might - as expected - assume a different stance. At this point in time, it seems unlikely that more traditional industrial relations and collective bargaining arrangements will emerge in the platform economy. It is rather more plausible to expect some sort of standards for platform work, at least in the more complex, specialised areas, where attracting qualified labour and ensuring minimum levels of professionalism are critical.

Beyond industrial relations, the development of the platform economy has implications for policy-makers in the realm of public policies, in particular legislation. In this respect, the broad societal and political dialogue on 'Work 4.0' has contributed to shaping the agenda for future decision-making, although no concrete steps have yet been undertaken. This is due to the divergence of positions on the one hand and the fact that being in the early stages of these economic developments in platform work causes stakeholders to be more cautious. Hence, we are well advised to monitor and gain a better understanding of this emerging phenomenon to realistically assess its potential, dynamics and associated risks. While most actors would probably agree that both regulatory non-action and over-regulation should be avoided, it would be premature to come up with strongly-formulated policy recommendations. In this sense, a continued broad dialogue involving all different types of stakeholders makes sense.

Nonetheless, it seems fair to say that policy-makers are mainly concerned with issues of the welfare state and social insurance, in particular when it comes to the platform economy. The classification of platform workers at the margin between self-employment and dependent employment has massive implications for the funding of social insurance, in particular health care, unemployment benefits and old-age pensions, where the German welfare state is still very much centred around dependent employment. Only in some narrowly-defined cases are the self-employed included in social insurance. This is probably the issue where most legislative action is to be expected over the next years, making social insurance eventually more encompassing. In fact, including the self-employed into old-age pensions is one of the projects mentioned in the recent governmental coalition agreement. While the debate on the social insurance of the self-employed and freelance workers is far from new, the rise of the platform economy might create some sense of urgency. Central to any solution are the resulting funding modalities in terms of social insurance. Who should bear the burden of social insurance contributions? Should platform workers, the platforms or the clients do so? Or perhaps some combination thereof? The absence of a formal employer unavoidably raises the need for innovative institutional solutions in Germany.

Furthermore, the platform economy raises the issue of effective taxation of corporate or individual income generated by work that is intermediated by the platforms. This could trigger a general move towards a more universal taxation of different types of earned income, in particular a stricter enforcement of taxes on secondary or occasional income (see also the current campaign of tax offices targeting Airbnb hosts). Finally, and related to this, the legal grey area between self-employed and dependent work will be in the focus of political attention as - beyond social insurance that might eventually become more universal - labour law is virtually restricted to formally dependent workers and their employers. To the extent that the inapplicability of labour law in the case of economically-dependent, vulnerable self-employed workers is identified as a major issue - e.g. avoidance of the statutory minimum wage - the recalibration of the definition of (in)dependent work will be on the political agenda.

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Annexes

Annex 1: List of Interview Partners

Interview Partners	
Code	Details
Single Interviews	
Interview 1	Platform owner (household services), student
Interview 2	Board member of an employers' association for platform work
Interview 3	Digital politician and member of state parliament
Interview 4	Translator (full-time, freelance)
Interview 5	Policy officer (trade union)
Interview 6	Policy officer (trade union)
Interview 7	Airbnb host (part-time, freelance), student
Interview 8	Professor (university)
Interview 9	Research assistant (university)
Interview 10	Ex-digital minister and member of opposition of state parliament
Interview 11	Copywriter (full-time, freelance)
Interview 12	Food courier (part-time, freelance), student
Interview 13	Research assistant (trade union: cloudwork project)
Interview 14	Car repair shop owner (uses digital platforms for client acquisition)
Interview 15	Live game scouter (freelance, part-time), student
Interview 16	Project leader (Trade union umbrella organisation)
Focus Group Discussion	
Interview 17-1	Food courier (full-time, employed)
Interview 17-2	Food courier (part-time, freelance), student
Interview 17-3	Airbnb host (part-time, freelance), student
Interview 17-4	Online seller (full-time, freelance), student
Interview 17-5	Craftsman (full-time, freelance, uses platforms for client acquisition)
Interview 17-6	Building company owner (full-time, self-employed, uses platforms for client acquisition)
Interview 17-7	Building company owner (full-time, self-employed, uses platforms for client acquisition)

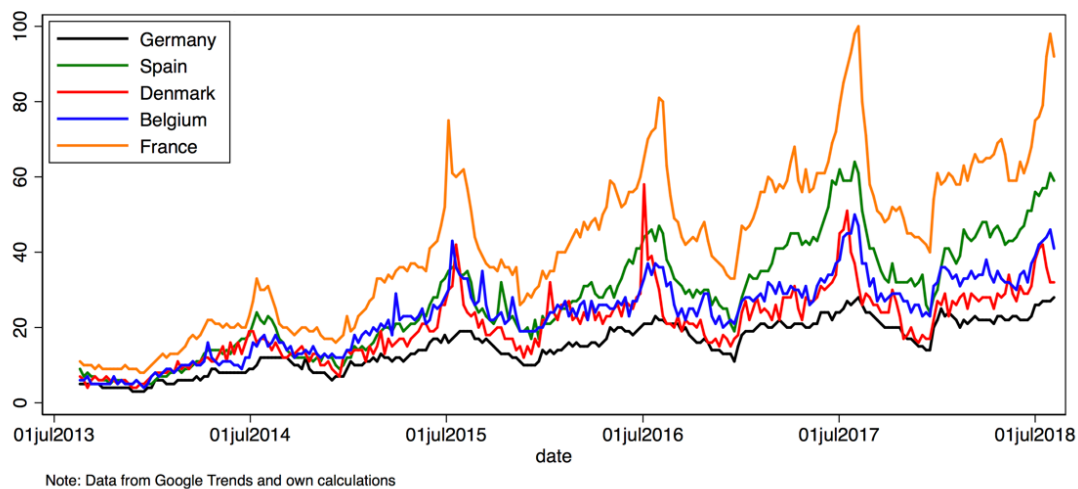
Annex 2: Methodology

We first looked at whether closed Facebook groups might host any activity or attempt to self-organise or -support among Uber/Lyft drivers internationally (since this sector is currently essentially outlawed in Germany), and subsequently whether such groups qualify as a substitute for the traditional union membership. Closed groups were selected because it is more reasonable to expect self-organisation in a closed rather than an open group (where we did not detect such efforts to begin with). In such closed groups, administrators monitor the requests to join and decide whether membership is granted to the applicant or not. Selection criteria commonly include the applicant being invited to respond to a brief questionnaire regarding her/his motives to join, consenting to the groups' rules such as a no harassment or spam policy and finally - in some cases - the applicant is asked to verify her/his status as an Uber or Lyft driver by providing a driver's profile snapshot.

When confronted with verifying ourselves as drivers, in all cases we responded truthfully and revealed ourselves as researchers. In our experience and during the very short duration of the experiment, the responses by the group administrators were prompt. Facebook's policies hindered our experiment.

Interestingly, in one Uber driver group to which we were granted access, we observed the "no union / strike organisation" group rule, as any attempt to do so was considered to be fruitless. Perhaps this indicates that at least some attempts to self-organise have been conducted before, although later the idea was discarded by the users of the group. Apart from this, we were unable to detect any activity in the groups that came close to any kind to self-organisation or interest representation, mainly because we could not obtain membership. Thus, either we failed to identify the relevant user groups in the first place - as they are both clandestine and impenetrable - or such user groups are non-existent in terms of functional self-organisation or interest representation.

Jointly with colleagues from the Centre for European Policy Studies (CEPS), we pursued the idea of 'using web data mapping the social dialogue in the collaborative economy'. The concept was split in two separate parts, the supply and the demand of relevant documents. In the following, we will introduce the methodology used to quantify the supply of web documents. Regarding the demand for such documents these terms hardly register in Google Trends. By contrast, looking at the demand for Airbnb shows robust seasonality and a positive trend, indicating both that the volume of searches for Airbnb is significant and that it is most likely demand for the service itself rather than demand for information about the workings of the platform.

Figure 10: Google Search for Airbnb in Germany and Selected Countries

In a nutshell, we used Google's search engine, extracted the top one hundred results, returned by Google when searching for specific search terms - which we refer to as the 'bag of words' (BoW) - and classified them according to a certain taxonomy. In what follows we will describe how we chose the search terms and how we formed the taxonomy.

We needed to find a way to decide which terms were relevant for our purpose. So for each country we used two BoW: one bag of words (BoW_en) which is common to all countries we covered, consists of all common English terms used to refer to aspects of the platform economy that could fit in a single search. We took the most prevalent. The other bag of Words (BoW_cl) was specific to the country of interest in the country's language and was chosen by the experts in each partner team. The BoW were joined in a long disjunction of search terms and we then performed searches of the form:

- BoW site:cc filetype:pdf,
- BoW site:cc filetype:html,
- BoW site:cc filetype:pdf and
- BoW site:cc filetype:pdf,

where cc stands for country code and noting but the respective country's top level domain (e.g. "de" for Germany, "be" for Belgium etc).

The choice of taxonomy was formed with the participants of the social dialogue in mind (government, unions etc) extending it in reasonable ways to include academia, think tanks, blog etc which also play in role in shaping the social dialogue. We revised both the taxonomy as well as the method of assigning a URL to a class in the taxonomy several times consulting with our colleagues at CEPS and the other partners who were responsible for forming their own country language bag of words BoW_cl. The taxonomy we thus found to work best consists of the following ten categories.

Figure 11: Notes on the Web Data Exercise

NOTES ON THE WEB DATA EXERCISE

Please remember that the URL is crucial for classification not the content displayed. If you're unsure about which category might be appropriate, see the website's 'Imprint' or 'About us'.

- | | |
|---------------------|---|
| 1. academia: | all URLs related to universities' webpages, academic papers and journals etc. |
| 2. blogs: | all URLs considered informal or emerging media, blogs, online magazines, publishers |
| 3. consulting: | all URLs related to business consulting, legal consulting |
| 4. foundations: | all URLs related to foundations of any kind - political, industrial, private etc. |
| 5. interest groups: | all URLs related to unions, employers' organizations, associations, lobbying etc. |
| 6. media: | all URLs related to formal media, newspapers, public broadcasters etc. |
| 7. platforms: | all URLs related to platforms |
| 8. policy: | all URLs related to parliament, government, federal ministries, committees, political organizations |
| 9. think tanks: | all URLs related to research institutes, policy driven think tanks etc. |
| 10. other: | <u>general society</u> i.e. all URLs which cannot be classified by categories 1. - 9. |

It became apparent to us and the other project teams, that we were only able to capture a small fraction of the discussion taking place in our respective countries by using the English terms. It is for this reason that we created a second German BoW by following the exact same strategy and invited each partner institute to follow our lead. For the combination of the national BoW (e.g. the German BoW), each institute's intimate knowledge on the topic was of importance.

It is important to clarify, that in the analysis the focus was placed on the supply of documents available to the user within a certain country. For this reason we invited each partner institute to conduct the 'Googling' for us and hence provided them with a step-by-step manual for the data gathering process. We asked the partner institutes to conduct the Google searches within a certain time slot for reasons of comparability and provide us with the raw results. In second stage, we extracted the URLs and produced the STATA and Excel lists, which were made available to the partner institutes for the classification. In the final step we, reviewed the lists and visualised the results by producing the corresponding graphs.

In our case the concrete searches we ran are as follows:

- *“crowdsourcing” OR “sharing economy” OR “collaborative economy” OR “collaborative consumption” OR “share economy” OR “crowdworking” OR “on demand economy” OR “crowdworker” OR “platform work” OR “crowd work” OR “platform economy” OR “gig work” OR “platform labor” site:de filetype:dt*
- *“digitale Wirtschaft” OR “digitale Gesellschaft” OR “Online-Plattformen” OR “Arbeit4.0” OR “digitale Arbeit” OR “digitale Plattformen” OR “Ökonomie des Teilens” OR “crowdsourcing-Plattformen” OR “Plattformökonomie” OR “Online-Vermittler” OR “Uberisierung” OR “kollaborative Wirtschaft” OR “Klickarbeit” OR “plattformbasierte Arbeit” site:de filetype:dt , where dt stands for document type and was either „html“ or „pdf“.*

