



platform labour in urban spaces

WP 3.

Comparative Analytical Analysis across seven city-specific reports (3.1).

2021-07-13

Authors: Bettina Haidinger, Bernhard Saupe, Philip Schörpf
(FORBA)

Grant Agreement	N. 822638
Project Acronym	PLUS
Project Full Title	Platform LABour in Urban Spaces: Fairness, Welfare, development



Instrument	Research and Innovation Action (RIA)
Topic	TRANSFORMATIONS – 01 - 2018
Call Identifier	H2020-SC6-TRANSFORMATIONS-2018
Work Package N. Title	WP 3 - Platforms' Socio-Economic Larger Impact on Urban Economies
Work Package Leader	FORBA
Deliverable N. Title	3.1 Comparative Analytical Analysis across seven city-specific reports
Period	From month x to month y (yyyy-mm-dd to yyyy-mm-dd)
Date of Delivery	2021-07-14

Version Control:

Version N.	Date	Responsible	Comments
V1.0	2021-06-16	FORBA	Part I
V2.0	2021-06-24	FORBA	Part II
V3.0	2021-07-07	FORBA	Comments by BIN, TU, CES, LUL, UH
V4.0	2021-07-14	FORBA	Final version
V5.0	2021-12-23	FORBA	Executive Summary included



TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	10
2. INTRODUCTION.....	14
3. PART I SURVEY	16
3.1 Methodology	16
3.1.1 Survey design	16
3.1.2 Survey implementation	17
3.2 Data analysis	20
3.2.1 Using platforms as a customer	20
3.2.1.1 Uber and similar platforms	21
3.2.1.2 Helping and similar platforms	23
3.2.1.3 Deliveroo and similar platforms.....	25
3.2.1.4 Airbnb and similar platforms	27
3.2.1.5 Exploring regression models	29
3.2.2 Income-earning activity through platforms – platform labour	33
3.2.2.1 Uber and similar platforms	34
3.2.2.2 Helping and similar platforms	35
3.2.2.3 Deliveroo and similar platforms.....	36
3.2.2.4 Airbnb and similar platforms	37
3.2.2.5 Future potential, Covid-induced changes	37
3.2.2.6 Zooming in on platform labour	40
3.2.2.7 Working conditions in platform labour compared to regular jobs ...	43
4. PART II SECTORAL ANALYSIS	47
4.1 Methodology	47
4.1.1 Secondary data collection at municipal level	47
4.1.2 Expert interviews at city and EU level and city reports.....	47
4.1.3 Focus group discussions and city industry reports.....	48
4.2 Conceptual approaches	50
4.2.1 Why a Sectoral Approach?	50
4.2.2 The sectoral platform – a firm and a means governing the fissured workplace	53
4.3 Helping and the cleaning sector	57
4.3.1 Sectoral description and data.....	58
4.3.1.1 Activities of households as employers of domestic personnel	60
4.3.1.2 Cleaning activities	64
4.3.2 Market structure and employment relations in cleaning work: fragmentation	68
and outsourcing.....	68
4.3.3 Working Conditions.....	70
4.3.4 Digitalisation and cleaning	73



4.3.5 Online Platforms: no major threat for incumbent companies and traditional employment forms	74
4.3.5.1 Helpling – major platform player in cleaning.....	74
4.3.5.2 Incumbents and platforms.....	76
4.3.6 Regulation and enforcement.....	77
4.3.6.1 ILO Convention on domestic work.....	77
4.3.6.2 Collective bargaining in cleaning in private homes.....	79
4.3.6.3 The role of subsidisation	83
4.3.7 Conclusions: Helpling and Cleaning.....	84
4.4 Uber and passenger transport.....	87
4.4.1 Sectoral description and market development.....	87
4.4.2 Working Conditions.....	94
4.4.3 Incumbent Company Strategies	99
4.4.3.1 Technology: Digitalisation and green technology.....	100
4.4.3.2 Service quality and alternative customers.....	101
4.4.3.3 Open conflicts	102
4.4.4 Regulation and enforcement.....	103
4.4.4.1 Industry regulation in France and Paris: “liberalization alongside the profession”	105
4.4.4.2 Industry regulation in London: black cabs vs ride-hailing.....	106
4.4.4.3 Industry regulation in Estonia and Tallinn: mostly common rules, rare compliance.....	107
4.4.4.4 Industry regulation in Germany and Berlin: rental car – the intermediary solution	109
4.4.4.5 Industry regulation in Portugal and Lisbon: TVDE – the other intermediary solution	109
4.4.5 City policies: from public service to “mobility of the future”	112
4.4.6 Conclusions: Uber and Private Passenger Transport.....	113
4.5 Deliveroo and delivery services	117
4.5.1 Impact of the pandemic on the delivery industry	118
4.5.2 Sectoral description in the cities	118
4.5.3 Employment conditions in the sector	121
4.5.4 Changing business strategies	122
4.5.5 Organizing delivery riders.....	124
4.5.6 Regulation	125
4.5.7 Conclusions: Deliveroo and Delivery Services	127
4.6 Airbnb and short-term rental	129
4.6.1 Sectoral description and data.....	129
4.6.2 Impact on the hotel sector	131
4.6.2.1 Pressure by online booking platforms	133
4.6.2.2 Outsourcing & Ancillary services.....	133
4.6.3 Working in the industry.....	135



4.6.3.1 Numbers & composition of workforce.....	135
4.6.3.2 Working conditions	137
4.6.4 Impact of the Covid-19 pandemic	141
4.6.5 Impact on housing market	143
4.6.6 Regulation	143
4.6.7 Conclusions: Airbnb and hotel and accommodation sector.....	146
5. SUMMARY AND CONCLUSION	148
6. REFERENCES.....	156
7. ANNEXES.....	165
7.1 Overview interviews city reports and interview guidelines.....	165
7.2 Overview interviews city industry reports and interview guidelines.....	171
7.3 Survey questionnaire	179



TABLES

TABLE 1. SAMPLE SIZES BY CITY	17
TABLE 2. SIGNIFICANT REGRESSION COEFFICIENTS FOR USING UBER AND SIMILAR PLATFORMS (STANDARDISED COEFFICIENTS; SIGNIFICANCE LEVEL 0,05)	31
TABLE 3. SIGNIFICANT REGRESSION COEFFICIENTS FOR USING HELPLING AND SIMILAR PLATFORMS (STANDARDISED COEFFICIENTS; SIGNIFICANCE LEVEL 0,05)	31
TABLE 4. SIGNIFICANT REGRESSION COEFFICIENTS FOR USING DELIVEROO AND SIMILAR PLATFORMS (STANDARDISED COEFFICIENTS; SIGNIFICANCE LEVEL 0,05)	32
TABLE 5. SIGNIFICANT REGRESSION COEFFICIENTS FOR USING AIRBNB AND SIMILAR PLATFORMS (STANDARDISED COEFFICIENTS; SIGNIFICANCE LEVEL 0,05)	32
TABLE 6. SIGNIFICANT REGRESSION COEFFICIENTS FOR ACTIVITY THROUGH ALL FOUR PLATFORM TYPES BY CITY (STANDARDISED COEFFICIENTS; SIGNIFICANCE LEVEL 0,05)...	43
TABLE 7. ITEMS INCLUDED IN THE WORKING CLIMATE INDEX.....	45
TABLE 8. OVERVIEW FOCUS GROUP DISCUSSIONS IN FOUR INDUSTRIES AND SEVEN CITIES	48
TABLE 9. NACE CATEGORISATION FOR CLEANING ACTIVITIES.....	59
<i>TABLE 11. NACE CATEGORISATION OF TAXI SERVICE OPERATION</i>	<i>88</i>
<i>TABLE 12. OVERVIEW OF REGULATIONS IN PLACE FOR PRIVATE PASSENGER TRANSPORT SERVICES</i>	<i>111</i>
<i>TABLE 13. NACE CATEGORIZATION FOR ACCOMMODATION</i>	<i>129</i>
<i>TABLE 14. AIRBNB IN EUROPE. MAJOR CITIES COMPARED (SOURCE: (COLLIERS & THE HOTEL SCHOOL OF THE HAGUE, 2018); CITY REPORTS)</i>	<i>131</i>
TABLE 15. LIST OF INTERVIEWEES FOR CITY REPORTS (TASK 3.1.3)	168
TABLE 16. LIST OF INTERVIEWEES FOR CITY INDUSTRY REPORTS (TASK 3.1.4)	174



FIGURES

FIGURE 1. USE OF UBER AND SIMILAR PLATFORMS BY CITY.	21
FIGURE 2. USE OF REGULAR TAXIS COMPARED TO UBER AND SIMILAR PLATFORMS BY CITY.	22
FIGURE 3. USE OF UBER AND SIMILAR PLATFORMS BEFORE AND AFTER THE FIRST COVID LOCKDOWN BY CITY.	23
FIGURE 4. USE OF HELPLING AND SIMILAR PLATFORMS BY CITY.	23
FIGURE 5. USE OF DOMESTIC SERVICES THROUGH REGULAR CHANNELS COMPARED TO HELPLING AND SIMILAR PLATFORMS BY CITY.	24
FIGURE 6. USE OF HELPLING AND SIMILAR PLATFORMS BEFORE AND AFTER THE FIRST COVID LOCKDOWN BY CITY. * NUMBER OF CASES VERY LOW (TALLINN)	24
FIGURE 7. USE OF DELIVEROO AND SIMILAR PLATFORMS BY CITY.	25
FIGURE 8. USE OF MEAL DELIVERY WITHOUT A PLATFORM COMPARED TO DELIVEROO AND SIMILAR PLATFORMS BY CITY.	26
FIGURE 9. USE OF DELIVEROO AND SIMILAR PLATFORMS BEFORE AND AFTER THE FIRST COVID LOCKDOWN BY CITY.	27
FIGURE 10. USE OF AIRBNB AND SIMILAR PLATFORMS BY CITY.	27
FIGURE 11. BOOKING THROUGH AIRBNB AND SIMILAR PLATFORMS COMPARED TO BOOKING WITHOUT A PLATFORM BY CITY.	28
FIGURE 12. USE OF AIRBNB AND SIMILAR PLATFORMS BEFORE AND AFTER THE FIRST COVID LOCKDOWN BY CITY.	29
FIGURE 13. ACTIVITY THROUGH UBER AND SIMILAR PLATFORMS BY CITY.	34
FIGURE 14. ACTIVITY THROUGH HELPLING AND SIMILAR PLATFORMS BY CITY.	35
FIGURE 15. ACTIVITY THROUGH DELIVEROO AND SIMILAR PLATFORMS BY CITY.	36
FIGURE 16. ACTIVITY THROUGH AIRBNB AND SIMILAR PLATFORMS BY CITY.	37
FIGURE 17. PERCENTAGE OF RESPONDENTS CURRENTLY ACTIVE THROUGH A PLATFORM WHO BELIEVE THEY WILL BE MORE ACTIVE IN THE FUTURE, BY PLATFORM TYPE.	38
FIGURE 18. PERCENTAGE OF RESPONDENTS CURRENTLY NOT ACTIVE THROUGH A PLATFORM WHO BELIEVE THEY WILL LIKELY BECOME ACTIVE IN THE FUTURE, BY CITY.	39
FIGURE 19. ACTIVITY BEFORE AND AFTER THE FIRST COVID LOCKDOWN BY PLATFORM TYPE.	39
FIGURE 20. HOURS USUALLY SPENT PER WEEK FOR ACTIVITY THROUGH PLATFORMS BY TYPE. ONLY RESPONDENTS WITH WEEKLY ACTIVITY THROUGH THE RESPECTIVE PLATFORM TYPE. * NUMBER OF CASES VERY LOW.	41
FIGURE 21. TYPICAL TIMING OF ACTIVITY THROUGH PLATFORMS BY PLATFORM TYPE. HELPLING AND SIMILAR PLATFORMS NOT INCLUDED DUE TO INSUFFICIENT NUMBER OF CASES.	41
FIGURE 22. INDIVIDUAL EMPLOYMENT SITUATION BY PLATFORM TYPE (PERCENTAGES).	42



FIGURE 23. ITEMS SELF-DETERMINATION AT WORK, BY KIND OF OCCUPATIONAL ACTIVITY (PERCENTAGES)..... 44

FIGURE 24. INDEX WORKING CONDITIONS (VALUE RANGE 0 TO 1) FOR MAIN JOBS AND PLATFORM LABOUR BY CITY..... 44

FIGURE 25. EMPLOYMENT (OVER 15 YEARS) IN "ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS OF DOMESTIC PERSONNEL" (T.97), 2008-2020, IN 1,000, IN SELECTED COUNTRIES (SOURCE: EUROSTAT [LFSA_EGAN22D]) 61

FIGURE 26. EMPLOYMENT (OVER 15 YEARS) IN "ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS OF DOMESTIC PERSONNEL" (T.97) IN TOTAL EMPLOYMENT, 2008-2019, IN %, IN SELECTED COUNTRIES (SOURCE: EUROSTAT [LFSA_EGAN22D]) 62

FIGURE 27. EMPLOYMENT IN "ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS OF DOMESTIC PERSONNEL" (T.97), IN 1,000 IN SELECTED CITIES (SOURCE: CITY DATA BASED ON LFS).. 63

FIGURE 28. EMPLOYED AND SELF-EMPLOYED IN "ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS OF DOMESTIC PERSONNEL" (T.97), LONDON, 2009-2018 (SOURCE: CITY DATA BASED ON LFS) 63

FIGURE 29. EMPLOYMENT IN "SERVICES TO BUILDINGS AND LANDSCAPE ACTIVITIES" (N.81), 2008-2020, IN 1,000 (SOURCE: EUROSTAT, [LFSA_EGAN22D]) 64

FIGURE 30. EMPLOYMENT IN GENERAL CLEANING OF BUILDINGS (N.81.2) IN SELECTED CITIES (SOURCE: CITY DATA BASED ON LFS) 65

FIGURE 31. PAYMENTS FOR AGENCY WORKERS IN GENERAL CLEANING OF BUILDINGS - MILLION EUR (SOURCE: EUROSTAT [SBS_NA_1A_SE_R2]) 66

FIGURE 32. EMPLOYMENT IN ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS OF DOMESTIC PERSONNEL AND SERVICES TO BUILDINGS AND LANDSCAPE ACTIVITIES, 2008, 2013, 2018, SELECTED COUNTRIES, IN 1,000 (SOURCE: EUROSTAT, [LFSA_EGAN22D]) 67

FIGURE 33. EMPLOYMENT IN ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS OF DOMESTIC PERSONNEL AND SERVICES TO BUILDINGS AND LANDSCAPE ACTIVITIES, 2008, 2013, 2018, SELECTED COUNTRIES, % IN TOTAL EMPLOYMENT (SOURCE: EUROSTAT, [LFSA_EGAN22D]) 67

FIGURE 34. EMPLOYED AND SELF-EMPLOYED IN "GENERAL CLEANING OF BUILDINGS" (TN.81.21), LONDON, 2009-2018 (SOURCE: CITY DATA BASED ON LFS)..... 70

FIGURE 35. ACTIVE ENTERPRISES IN TAXI OPERATION SERVICES, SELECTED COUNTRIES, 2009-2018 (SOURCE: EUROSTAT STRUCTURAL BUSINESS SURVEY [SBS_NA_1A_SE_R2]) 89

FIGURE 36. EMPLOYEES IN TAXI OPERATION SERVICES, SELECTED COUNTRIES, 2009-2018 (SOURCE: EUROSTAT STRUCTURAL BUSINESS SURVEY [SBS_NA_1A_SE_R2]) 89

FIGURE 37. CONDUCTEUR DE TAXI (TAXI DRIVERS), CONDUCTEUR DE VOITURE PARTAGÉE (CAR-SHARING DRIVERS), CONDUCTEURS, LIVREURS, COURSIERS (COURIERS), 2009-2015, IN FULL-TIME-EQUIVALENTS, PARIS (SOURCE: PLUS CITY DATA)..... 90

FIGURE 38 EMPLOYMENT IN TAXI OPERATION SERVICES, LONDON AND UK, 2013, 2016 AND 2018 (SOURCE: LABOUR FORCE SURVEY, PLUS CITY DATA) 91



FIGURE 39. ACTIVE ENTERPRISES IN TAXI OPERATION, UK AND LONDON, 2009-2018 AND PAYMENT FOR AGENCY WORKERS IN UK, IN MIO EUR (SOURCE: EUROSTAT STRUCTURAL BUSINESS SURVEY [SBS_NA_1A_SE_R2], PLUS CITY DATA) 91

FIGURE 40. PERCENTAGE OF INDIVIDUALS SATISFIED WITH PUBLIC TRANSPORT (SOURCE: EUROSTAT PERCEPTION SURVEY) 112

FIGURE 41. NUMBER OF WORKERS IN H.53 (SOURCE: LABOUR FORCE SURVEY, PLUS CITY DATA) 119

FIGURE 42. NIGHTS SPENT AT HOLIDAY AND OTHER SHORT-STAY ACCOMMODATION NACE I55.2 (SOURCE: EUROSTAT) 130

FIGURE 43. NIGHTS SPENT AT HOTELS AND SIMILAR ACCOMMODATION. NACE I55.2 (SOURCE: EUROSTAT)..... 131

FIGURE 44. PERSONS EMPLOYED IN THE POPULATION OF ACTIVE ENTERPRISES IN ACCOMMODATION AND FOOD SERVICE ACTIVITIES BY NACE_R2 AND NUTS-3 REGIONS (SOURCE: EUROSTAT AND PLUS CITY DATA) 136

FIGURE 45. PERSONS EMPLOYED IN NACE I.55 AND NUTS-2 REGIONS. (SOURCE: EUROSTAT) 136

FIGURE 46. SHARE OF PERSONS EMPLOYED BY GENDER, 2017 (%) IN ACCOMMODATION (NACE I.55) (SOURCE: EUROSTAT) 137

FIGURE 47. HOTELS AND SIMILAR ACCOMMODATION. PAYMENTS FOR AGENCY WORKERS – IN MILLION EURO. (SOURCE: EUROSTAT STRUCTURAL BUSINESS SURVEY [SBS_NA_1A_SE_R2]) 139

FIGURE 48 HOLIDAY AND OTHER SHORT-STAY ACCOMMODATION, PAYMENTS FOR AGENCY WORKERS IN MILLION EUR (SOURCE: EUROSTAT [SBS_NA_1A_SE_R2]) 139



1. EXECUTIVE SUMMARY

First, this report gives an **overview over the quantitative dimension of platform labour**, both in terms of demand for platform-mediated services (food delivery, cleaning, short-term rental, passenger transport) at city level before and during the Covid-19 pandemic and in terms of labour supply and working conditions. Findings are based on the analysis of a quantitative online survey in seven cities covering all in all more than 8,000 respondents.

- Platforms have become **important alternatives to established suppliers in some industries**: Platforms for private passenger transport such and food delivery stand out as particularly popular; in some cities platforms are already equally or more widespread than conventional service providers. On the other side of the spectrum, platforms for household-related services are still behind conventional offers.
- The most important factors influencing the use of the platforms studied in the customer role are **digital literacy and age**. There is also evidence for judgements about service quality being relevant for deciding between platforms and conventional service provision; social background is only relevant for platform use in some of the cities.
- **Gainful employment activities via platforms mostly take place discontinuously, complementarily, and part-time.**
 - Numbers for **weekly (=regular) activity are predominantly low across cities and platform types**; the comparatively highest ones occur in food delivery platforms. Infrequent activity, i.e. less than weekly activity, is markedly higher. **Average weekly number of hours spent on platform activities are low.** The typical timing of these activities is situated at weekends and off-peak times.
 - Implications of these findings could be that platform workers earn too little in their main activity and have an economic necessity for a second job, or that in sectoral platform work casual service provision and the strategy of platforms to contract a large number of workers is the norm to dampen prices.
- In terms of **working conditions** (support at work, consultation at work, job satisfaction, sufficient breaks, bringing in own ideas, expectations at work), the **differences among respondents in the seven cities surveyed between activities platforms and other employment show little variation.** As regards **surveillance by superiors and being rated by customers**, agreement to these items is clearly higher for activity through platforms than for main jobs, except for the possibility to object to unjustified ratings, agreement to which is equally low for both categories.

Second, the report describes **key aspects of how platforms are embedded in the respective sectors and contrasts it with the overall industry's development.** Findings are based on the analysis of Eurostat data and municipal data, exploratory expert interviews in seven cities and focus group discussions with sectoral key stakeholders.



- **Sectoral platforms**, that is platforms offering digitally mediated services, **operate in, need to adjust to and can disturb or even disrupt industries and the service markets they are entering**. These service markets, i.e. passenger and goods transport, cleaning, touristic accommodation do have their specific legacies of liberalization, technological advancement, de- or reregulation. Sectoral platforms confront incumbents, bring about new technologies to attract customers and to make services and work organization more efficient but they also need to comply with or react to existing sectoral regulations or lobby for their amendment.
- Overall, incumbents and platforms **adopt new business strategies and are adapting constantly**: we can identify a diversification of activities (e.g., food delivery platforms entering food production) or a specialisation in certain activities (e.g., taxis offering rides to specific customers), and, importantly, a **pronounced technological upgrade of incumbents**.
- The **impact of platforms operations differs from industry to industry**: Therefore, a detailed look into the sector merits:
 - We can identify **high competition in passenger transport between traditional providers and UBER or similar platforms**. Platforms are entering a market that has little perspective of expansion. That means, platforms compete in a surrounding where demand is limited, and traditional taxis are crowded out. The traditional taxi industry reacts with monopolising specific services and retaining specific privileges (e.g., hailing on the street).
 - Platforms brokering **cleaning services enter a far from saturated market**, as the demand of private households for domestic services is rapidly surging due to socio-demographic and socio-economic trends, notably the rise of female labour market participation and higher life expectancy in combination with the need for care and domestic services. It is a market characterised by informal labour relations. Formalisation is a big issue, platforms claim for themselves to open up formal job opportunities and to formalise previously informally provided service work. However, **“formalisation” alone is not enough as a step to guarantee decent work**. Hence, for the improvement of working conditions in general that go beyond mere formalisation platforms hardly contribute. Industrial cleaning has expanded as well due to the outsourcing of this business function to external service providers. Up until now, platforms have hardly tapped on the industrial cleaning market.
 - **Airbnb expanded particularly in cities that experienced a general boost in tourism**. Hence Airbnb could absorb a high overall demand for overnight stays in cities that could not be met by traditional accommodation providers such as hotels. Looking at EUROSTAT numbers, we see tourism and overnight stays



increased in all PLUS cities over the past years, but a remarkable surge is apparent in short-stays.

- Finally, **delivery services (parcel delivery, home delivery including food delivery) expand continuously with bike delivery** – due to logistic, traffic and ecological reasons - **a particularly interesting option**. Up until now platform-mediated delivery by bike was particularly widespread in food delivery, with restaurants, households, and platforms the triangle of service provision. What we observe here are two trends: on the one **hand platform-based bike delivery orients towards the delivery of other goods**, especially groceries, to households. On the other hand, **food delivery platforms aim to take over the producers of what is delivered**. Deliveroo, e.g., establishes so-called ghost kitchens under franchise labels.
- **The institutional context of a city, region or state and the sectoral context matter for understanding and regulating platform work**. Trade regulations, collective agreements as well as the organization of production and product markets and employment relations are rather comparable across cities and within sectors than across sectoral platforms.
- Nevertheless, we do find significant similarities across the **sectoral platforms**, in terms of app-based monitoring of the labour process, but also **across the sectors** they operate in. One common feature is that the four sectoral PLUS platforms entered industries or started to operate in related markets that have offered precarious working conditions already before platforms have appeared. **What is labelled as the “fissured workplace” (David Weil) is taken to its extremes when platforms deploy labour**: outsourcing, subcontracting, licensing or franchising is nothing new to optimize production processes and to shed employer responsibility away from the lead firm. Sectoral platforms exacerbate the organization of the fissured workplace.
- We identified **noteworthy regulations at industry level that impact highly either on labour standards and working conditions**, e.g., through collective agreements, **or on market access and industry standards**, e.g., through trade regulations. They also aimed at establishing a level playing field among incumbents and platforms in the respective industry. This means that sectoral policies have an effect on the quality of services and the quality of work in the industry, **including the platform-mediated service provision**.
 - For **domestic work, we would like to hint to two aspects of regulation**: first, the conclusion of a company agreement in Denmark for domestic workers working for the company HILFR is **innovative in many** aspects but especially two stand out: after the completion of certain working hours, freelancers are **automatically treated** as employees covered by the CBA, unless **they actively opt out of this** status. Moreover, the CBA explicitly tackles the issue of data



privacy and data protection, including the right to remove inappropriate comments from the platform. Second, it is not proven that platforms **reduce informal domestic work**, and it is highly contested that platforms contribute to an improvement of working conditions. What is confirmed is that **informal domestic work declines if tax breaks or other subsidies such as service cheques** (such as in France or Belgium) **are implemented to incentivise the formal employment of a domestic worker**. Hence, the subsidization can help to improve working conditions if it is linked to negotiated minimum labour standards.

- For **touristic and short-term accommodation**, the city level plays an important role to regulate the market. **City taxes, mandatory registration, or a quota of tenements** to be rented out per city or borough stand out as effective policies.
- For **all platform transport workers**, be it ride hailing or food delivery, **case law confirms their employment status**. Legal action has also been taken for domestic works but did not succeed.
- In **private passenger transport**, regulatory policies are oscillating between the willingness to protect the taxi industry as a worthwhile part of public transport and an approach towards deregulation and liberalisation of the trade. Moreover, **recent court rulings throughout Europe demonstrate that the provision of taxi services through Uber may entail an even higher degree of subordination and control over working conditions than if mediated through a traditional taxi company**. Due to such court decisions as well as national and municipal sectoral regulation, Uber increasingly hires sub-companies employing drivers with formal labour contracts. While this strategy was intended to prevent precarious work, it often reproduces the precarity of the freelancing model. In contrast to the “bogus self-employment” which Uber has established in most of the countries it operates, this phenomenon instead rather resembles a “**bogus employment**”, meaning a de-facto precarity of a freelancer under the legal umbrella of formal employment.



2. INTRODUCTION¹

The PLUS project explores the labour process, working conditions and social protection of platform workers as well as the sectoral and urban impact of four platform types – Deliveroo, Helping, Airbnb, Uber and similar platforms. All four types are examples for a kind of platform that is termed *lean platform* (Srnicsek, 2016, 2017) or *sectoral platform* (Dijck et al., 2018). For PLUS, we define *platforms in general* as an emerging business model based on the use of digital technologies. Platforms entail both the structure of horizontal marketplaces and the hierarchies of conventional companies. Central to *lean platforms* is that their business model is based on the outsourcing of core operational activities or assets, including labour, fixed capital, maintenance costs or training. As *sectoral platforms*, they offer digitally mediated and operated services for a specific industry. Such digital platforms also instigate debates because they tend to evade current economic regulations. Furthermore, such platforms impact on the urban contexts in which they usually operate – and contribute to effects such as gentrification and touristization (Altenried et al., 2021). Although platforms only constitute a fraction of the overall economy² their operations have gained overwhelming attention for several reasons: first, they challenge traditional forms of employment in a way that is often labelled disruptive; second, they introduce digital means of production, tightly detailing and monitoring the labour process; third, we observe sectoral impacts, especially at urban level; fourth, they display an innovative business model that is evasive in the sense of dodging existing business regulations, while systematically searching for regulatory loopholes.

The four platforms studied for the PLUS project encompass various types of service: transport, including passenger and goods transport (Uber and Deliveroo), cleaning and household services (Helping and Airbnb) as well as tourism-related services (Airbnb). The PLUS project so far has emphasised the effects such platforms have at urban level, including on working conditions, labour struggles and labour market integration (Altenried et al., 2021), on the urban regulatory framework, urban participatory sphere and urban technological agency (Secchi et al., 2021), and on redistribution mechanisms at urban level (Fumagalli et al., 2021), as cities and tourism regions are the focal areas where sectoral platforms gain a foothold and impact on the urban fabric.

This report aims at examining the PLUS platforms through a sectoral lens, relating findings already established in the PLUS project with developments at industry level and in related occupations. These ‘incumbent’ industries and occupations are potentially heavily affected by the emergence of platforms while not or only to a limited extent relying on platform-mediated service provision themselves. As we intend to put the provision of the platform-mediated services analysed in PLUS into a broader economic perspective, it is essential to take into

¹ NOTE: all links and websites referred to in this report were checked for availability by July 13, 2021

² According to (Technopolis et al., 2018) the overall size of collaborative economy was estimated generating EUR 26,5 billion for the EU GDP in 2016 (majority in finance: 9.7; accommodation: 7.3; online skills: 5.6; transport: 4). It amounted to 0.17% of total EU GDP, and generated 394,000 jobs (=0.15% of total EU employment (transport: 124,800; accommodation: 113,300).



account economic and regulatory developments for the related industry. Our approach should be seen as complementary to already established and upcoming research conducted in the PLUS project either focused on the technological and organisational innovativeness of platforms and their (disruptive) impact on labour processes, skills, and the social protection of platform workers (Altenried et al., 2021) or applying an urban governance approach to explore effects of sectoral platforms on policymaking, democracy and technological agency of municipalities (Secchi et al., 2021). For the latter analytical approach, 'sector' as a concept has a broader meaning and refers to the urban aspect of platform activities: Uber impacts not only on passenger transport but on urban mobility, Deliveroo and Helping impact on the provision of personal services, Airbnb impacts on city tourism and the rental and property markets. For this report, 'sector' is understood in a narrower sense in order to compare company strategies, working conditions and employment patterns between the established and the new platform-mediated service providers, as well as the impact of regulatory reforms on both.

The report is structured into two parts: the first part is based on the results of a quantitative online-survey examining first the use of the four platforms from a customer's point of view and second the relevance of the four platforms for income-earning activities, including key data on platform activities in terms of working hours and working conditions. Both dimensions of the platforms are contrasted with their brick-and-mortar equivalents.

The second part explores the four platforms' sectoral embeddedness: How has the corresponding industry developed? What was the industry structure and employment situation like that platform companies encountered when they began to operate? Can we identify incumbents jeopardized by platform's market entry? If yes, how did they react? If no, what relevant broader economic and regulatory impact did the entrance of platforms have in the respective cities? Each of the industries is analysed separately followed by specific sectoral conclusions.

Finally, the report provides an overall summary, integrating the findings from the quantitative survey and the qualitative sectoral analysis and presents some cross-sectoral conclusions.



3. PART I SURVEY

3.1 Methodology

While the bulk of the empirical work carried out within the PLUS project can be deemed closer to the qualitative paradigms of social research than to the quantitative-nomological ones, it was considered important to complement this qualitative focus with quantitative data on the pervasiveness, quality, and impact of the four platform types analysed in PLUS in the seven focal cities.

As already anticipated when conceptualising the project (and later reinforced when collecting data for WP2), the availability of relevant secondary data is quite sketchy for the city level. This holds true both for background data from standard datasets and for data specifically collected to study the platform economy or crowd work – in the end, it often comes down to the number of cases not being sufficient to allow for a city-level analysis, and this necessitated the collection of specific quantitative data within the PLUS project.

3.1.1 Survey design

Given the central aims to complement the qualitative work within the PLUS project and to allow for comparisons both between platform types and cities, it seemed reasonable to open up the survey's focus to enable a broad comparative perspective on the relevant quantifiable dimensions of the four platform types and their urban impact. This implied e.g., covering the use of platforms both as a customer and as a worker; it also meant that the attention given to aspects of working conditions and working culture within the PLUS project was to be integrated into the questionnaire. In order to facilitate comparisons between the survey data and other datasets, some questions were adopted (or slightly adapted) from prior surveys, most notably the European Working Conditions Survey³ and the international survey on crowd work carried out by the University of Hertfordshire (see Huws et al., 2018).

An unforeseen factor requiring reasonable adaptations was the Covid-19 pandemic. As the data collection took place between the first and second lockdown in the seven cities (or, in Lisbon and London, right at the beginning of the second one), the decision was made to include additional questions aimed at enabling a basic before-after comparison regarding the use of platforms and potential impacts of the pandemic. Of course, the timing of the data collection after the onset of the Coronavirus crisis is likely to impact the quality of the collected data in ways not fully accounted for (some of which will be addressed throughout the following subchapters), but in this way, we attempted to explicitly address the effects the pandemic at its onset had on the platforms in the seven cities within the survey.

³ For the questionnaire of the EWCS's 2015 edition, see <https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys/sixth-european-working-conditions-survey-2015/ewcs-2015-questionnaire>



The questionnaire was designed in cooperation with the city partners. An important input by the partners consisted in naming the best-known city-specific platforms for each type. Unlike in the qualitative research step within PLUS, the questionnaire included questions about all four platform types in all cities. To examine the full questionnaire, please see the Annex (7.3).

The main field phase was preceded by a pre-test (see below); it encompassed approximately five percent of the total sample size per city and examined whether all questions were understandable, if there were problems in answering, if answer categories were missing etc. The interview duration was also checked. The pre-test resulted in a few modifications of the questionnaire, but generally confirmed it as a practicable and understandable instrument.

Translations into the relevant languages (including an additional translation into Russian for Tallinn) were done by the network partners of the polling agency and checked for quality and understandability by the PLUS city partners.

3.1.2 Survey implementation

The survey was carried out online by the Austrian polling agency *Das Österreichische Gallup Institut*. City-specific samples were randomly drawn from regional online panels provided by network partners of the polling agency with two stratifying variables being monitored (see below). To ensure that the online panels cover groups of participants that may be hard to reach online and to avoid source-induced biases, the providers employ a multi-channel approach to recruiting panellists that includes face-to-face and telephone recruitment. The sociodemographic structure of each panel is matched to the general population using appropriate data sources like census data.

The relevant city-specific populations consisted of working-age city inhabitants, i.e., people aged between 18 and 64 (Paris) and 16 and 64 (all other cities). The specific age bracket for Paris is due to 18 being the age of legal majority in France and 16 in the six other relevant countries; the participation of minors would have required the consent of parents or legal guardians which would have complicated the data collection process.

	Regular sample	Oversampling age 18 to 34
Barcelona	1500	547
Berlin	1000	96
Bologna	499	0
Lisbon	1250	82
London	1900	755
Paris	1500	165
Tallinn	500	396

Table 1. Sample sizes by city



Table 1 shows the sample size for each city (left column); differences between cities are due to the potential of the respective online panel to maximise the number of respondents. Also shown in the table are the numbers for an additional oversampling of respondents aged 18 to 34; here, the differences between cities are even more marked, and again they are accounted for by differences between the online panels. The oversampling was aimed at maximising the number of respondents earning money through one or more of the four platform types analysed in PLUS, based on the assumption that younger respondents are more likely to engage in this kind of activity.

To ensure a sufficient correspondence between each city-sample and the respective population with regard to the distribution of age and gender, these two characteristics were used as stratifying variables during the data collection, i.e., distributional targets based on recent population figures were defined and regularly monitored during fieldwork. Educational degree was closely monitored, but could not be used as a stratifying variable consistently across all cities due to the variation in coverage in the access panels.

In addition to these stratifying procedures, the poll agency provided two weights as an option to account for persisting differences between samples and populations regarding key variables. The first weight includes age and gender (although the achieved approximation of the city-samples to the respective populations regarding these two variables was already very close); the second weight additionally includes educational degree (for which, being no stratifying variable, the approximation in some cities was not as close). For Paris, the weight including educational degree could not be provided due to a lack of available population data for the relevant age group. In the figures included on the following pages, city-specific data will be based on the second weight for all cities but Paris, for which the first weight was used.

The two weights were calculated using RIM weighting (random iterative method). RIM Weighting is an iterative process which ensures that the weighting variable takes into account all relevant characteristics simultaneously. The weighting algorithm proceeds in such a way that a first weighting value is calculated for the first characteristic. Based on this first value, the algorithm takes into account the second characteristic and calculates a new weighting value. This is repeated iteratively for each characteristic until a weighting variable is arrived at that ensures that the distribution corresponds to the representative distribution for all characteristics.

After the completion of the fieldwork phase, comprehensive quality controls were applied to the data by Gallup. Apart from a number of interviews that had to be discarded due to evidence of “clicking-through”, an issue discovered during this process was that some respondents had indicated to earn money through all platforms included in the questionnaire, possibly out of a misunderstanding of the respective question, with the highest numbers of such respondents occurring in London and Paris. To examine this in more detail, recontacts with a simplified mini-questionnaire were made to a few of these respondents in the two cities. The recontacting confirmed that the respondents had not understood the question correctly; apart from the questionnaire potentially being too complex or too long in this regard (some improvements were made after the pre-test), this is likely connected to platform labour



still being a new and emerging social phenomenon for which less intuitive pre-knowledge can be expected than for other, more established subject matters. A way of accounting for this non-familiarity would have been to ask for platform labour in a very cautious, elaborate, multi-stage kind of way based on cognitive pretesting; this however would in turn have precluded the chosen approach of covering as many relevant aspects of online platforms and their impact in urban contexts as possible in the quantitative survey.

Based on the results of the recontacting with the simplified mini-questionnaire, the answers of the respondents indicating earnings through all platforms were corrected. A further option for checking the data for plausibility consisted in cross-checking whether a respondent indicating use of a platform type either as a customer or for earning money also indicated to be familiar with one or more of the exemplary city-specific platforms named in the questionnaire.



3.2 Data analysis

3.2.1 Using platforms as a customer

In the following chapter, we present evidence from the survey data regarding the use of the four platform types as a customer. For each platform type, there will be a figure depicting current and potential future use which will be structured along the following three categories:

- Frequent use: The respective platform type is used at least once or twice a week
- Occasional use: The respective platform type is used once or twice a month or less often
- Potential future use: The respective platform type is currently not used, but the respondent has indicated a high likelihood of future use (i.e., has picked one of the two top categories of the provided likelihood scale).

In this way, both the current size of the market in each city and the potential of future increase can be viewed in one graph.

In addition, there will be figures comparing the use of the respective platform type to the conventional means of providing the respective service. A further set of figures will show the change in platform use between before and after the first Covid lockdown. In a separate subchapter, results from explorative linear regression modelling will be briefly presented and discussed.

Please note that while the text will always refer to the four example platforms used in all PLUS documents (Uber, Helping, Deliveroo, Airbnb), survey respondents in each city were presented with city-specific examples for each platform type that may or may not include the four PLUS example platforms. This implies that all results pertain to the four platforms types and not to particular platforms.



3.2.1.1 Uber and similar platforms

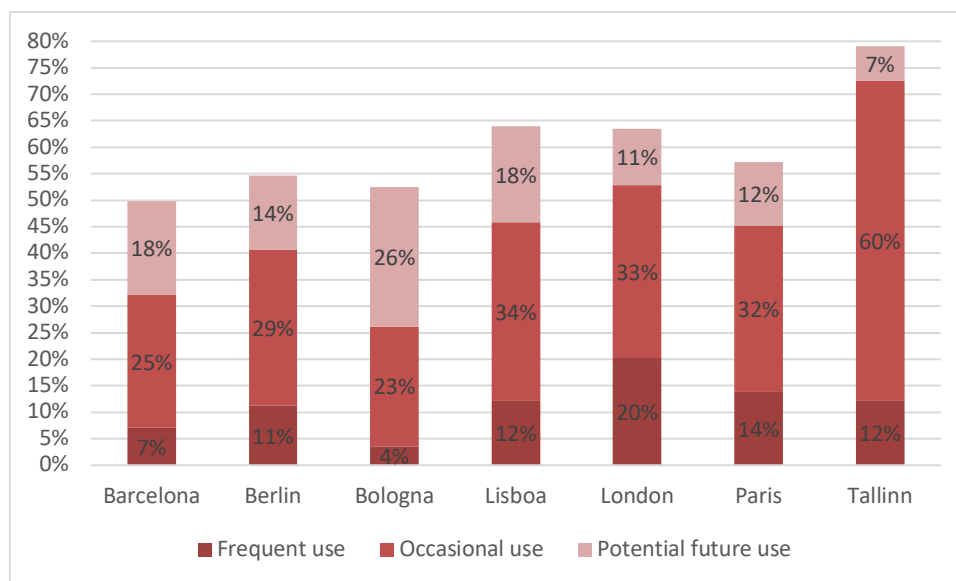


Figure 1. Use of Uber and similar platforms by city.

As Figure 1 shows, the popularity of Uber and similar platforms varies substantially between the seven cities, with the proportion of frequent users ranging from 4% in Bologna to 20% in London. Likewise, the percentage of occasional users varies from 23% to 60%, with the lowest value again occurring in Bologna, whereas the 60% put Tallinn ahead of the other cities by some margin, with the second-highest percentage (34% in Lisbon) just short of half the Tallinn value.

The distribution of the future market potential is somewhat complementary to the level of present use, with the highest percentage of likely future users in Bologna (26%) and the lowest in Tallinn (7%); the other cities all show between 10 and 20%.

All in all, the numbers indicate distinct city-specific profiles of usage for Uber and similar platforms, with the percentage of frequent and occasional users between 30 and about 45% in four of the seven cities (Barcelona, Berlin, Lisbon, Paris).

An important context for the city-specific use data can be seen in the corresponding data for regular taxis. The survey data allow for a comparison between the use of Uber and similar platforms on the one hand and regular taxis on the other. As Figure 2 shows, the seven cities can be divided into three subgroups according to this comparison: In Barcelona, Berlin and Bologna, the user percentage for regular taxis is clearly ahead of Uber and similar platforms (frequent and occasional use added up for both categories); in London and Paris, regular taxis also have more users than platforms, but only by a small margin (3 and 4 percentage points respectively); in Lisbon and Tallinn, more respondents use Uber and similar platforms than regular taxis, with the difference rather narrow in Lisbon (6 percentage points) and substantial in Tallinn (31 percentage points).



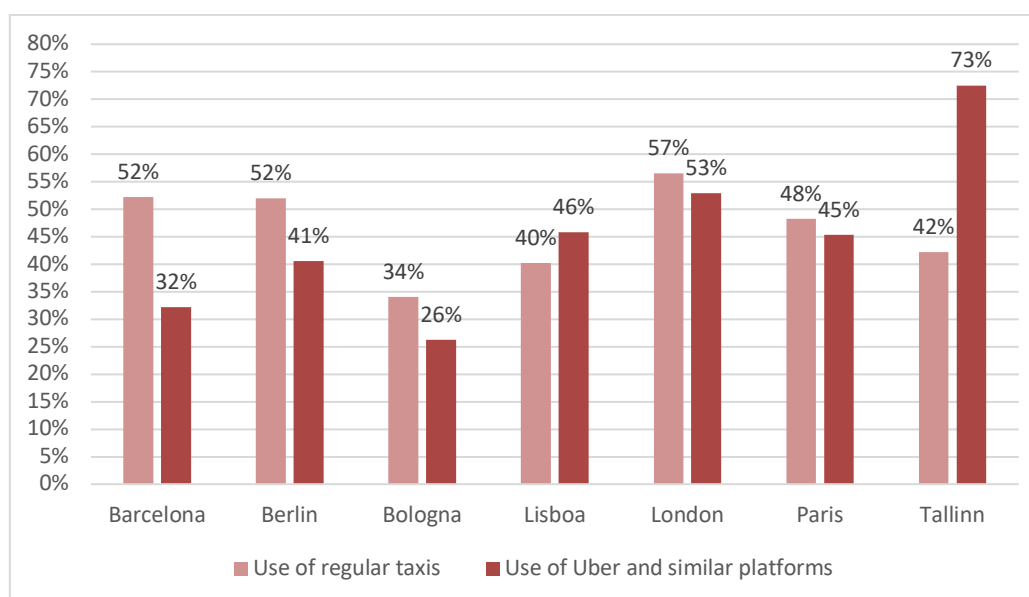


Figure 2. Use of regular taxis compared to Uber and similar platforms by city.

Figure 3 makes transparent how the onset of the Covid pandemic impacted the usage of Uber and similar platforms. The graph applies the standard colours of traffic lights to illustrate the percentages of increase, consistency or decrease of use between before and after the first Corona lockdown (respondents who indicated no use before and after the lockdown are not included in the data depicted in Figure 3). With the exception of Tallinn, the percentage of respondents whose use of Uber and similar platforms has decreased since before the first Corona lockdown clearly exceeds the percentage whose use has increased, with the difference ranging from 13 percentage points in Paris to 24 percentage points in Lisbon and London).

Given that the first lockdown led to a sharp decline in urban mobility while boosting the amount of working, shopping, socialising etc. being done online (an effect which likely did not entirely disappear with the loosening of the first lockdown), the overall decrease in use of Uber and similar platforms does not come as a surprise. At the same time, the substantial gain in time spent online just mentioned is likely to also have brought new users to Uber, or to have increased the use of formerly occasional users, which would account for the percentage of respondents whose use of Uber and similar platforms has increased since before the first lockdown. Of course, the exact amount of increase and decrease of use indicated in a city is likely influenced by the amount of Covid restrictions still (or again) in place at the time of filling in the questionnaire.



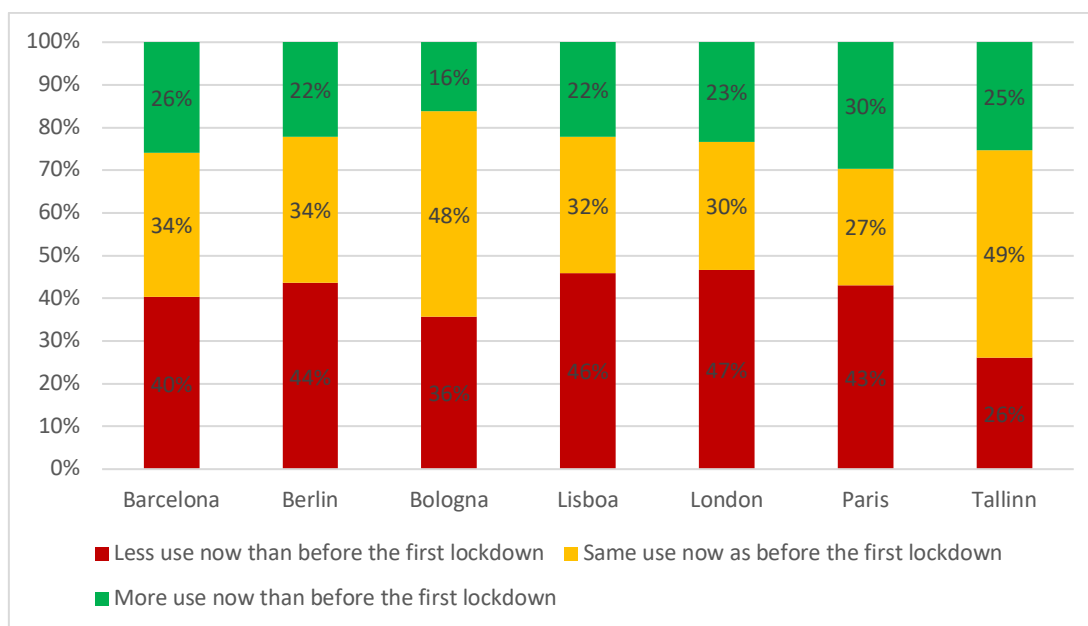


Figure 3. Use of Uber and similar platforms before and after the first Covid lockdown by city.

3.2.1.2 Helping and similar platforms

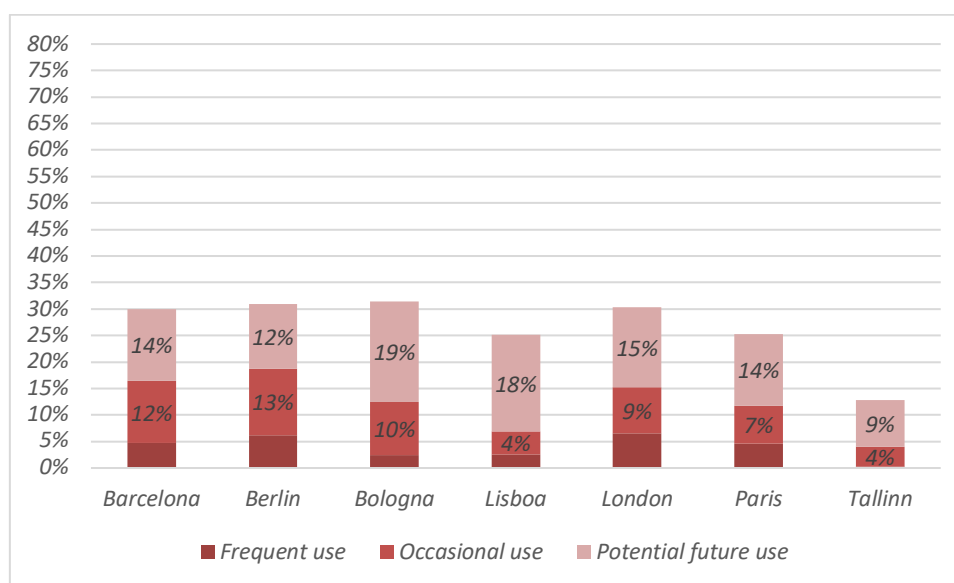


Figure 4. Use of Helping and similar platforms by city

Compared to Uber (and, as we shall shortly see, Deliveroo), the use of Helping and similar platforms is on a markedly lower level across all cities (and thus encompassing both the cities included in and excluded from the qualitative analysis in PLUS): Frequent users range from none at all in Tallinn to 7% in London, occasional users from 4% in Tallinn to 13% in Berlin and 12% in Barcelona. The amount of potential future users doesn't make up for the low number of actual users, but at least reaches similar levels as for Uber with all cities but Tallinn at between 10 and 20%.

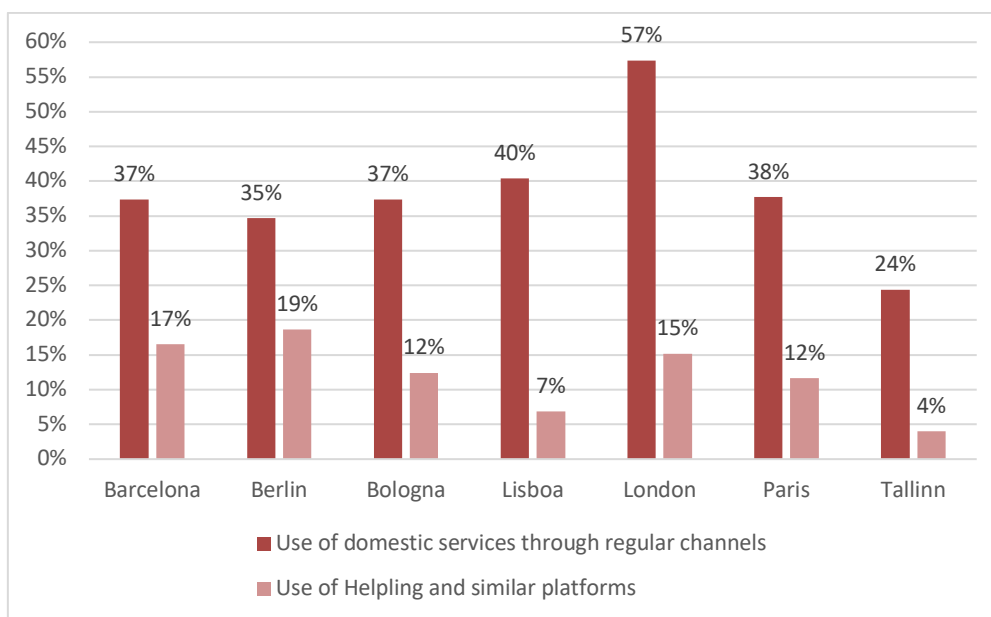


Figure 5. Use of domestic services through regular channels compared to Helping and similar platforms by city.

The comparison between domestic services carried out through platforms like Helping and through regular channels (e.g., regular providers of domestic services, or finding someone through word of mouth or advertisements) is consistent with the low level of platform use depicted in Figure 4: Domestic services carried out without the use of a platform are clearly more prevalent in all seven cities, with the gap ranging between 16 and 42 percentage points (Berlin and London, respectively, see Figure 5).

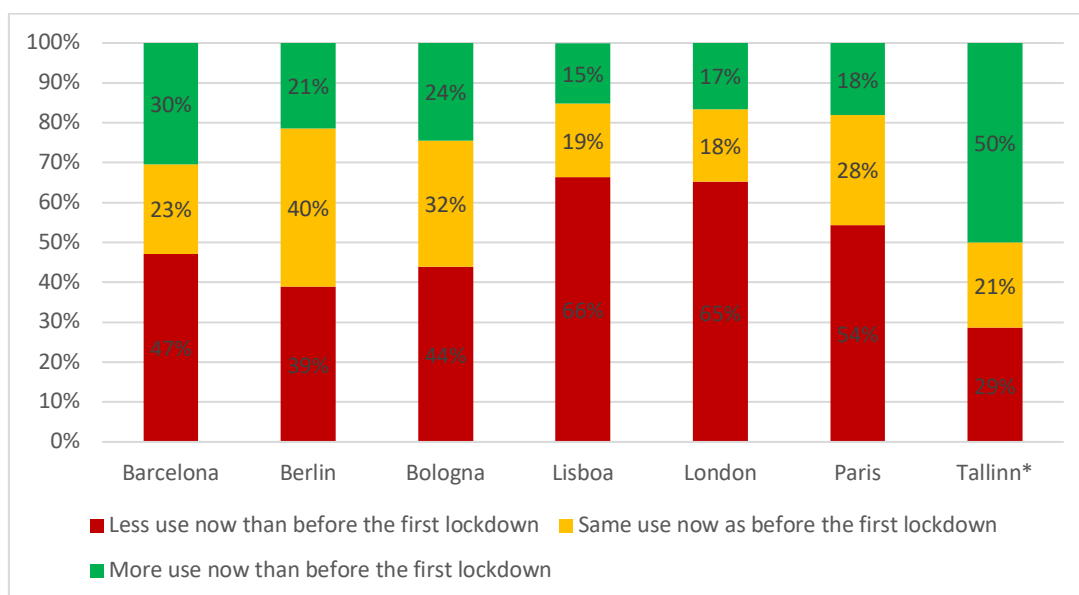


Figure 6. Use of Helping and similar platforms before and after the first Covid lockdown by city. * Number of cases very low (Tallinn)

As Figure 6 shows, the first Covid lockdown has brought about a pronounced decline regarding the use of Helping and similar platforms: In all cities except Tallinn (where the number of underlying cases is very low), the percentage of respondents indicating less use after than before the first lockdown markedly exceeds the percentage with an increase in use in the same timeframe, with the differences ranging from 17 percentage points in Barcelona to as much as 51 in Lisbon.

It's not entirely clear why the pandemic seems to have affected platforms for domestic services so much – possibly, both the lockdown and the overall climate of precaution and social distancing have heightened the threshold for having a service carried out in one's own living space (which may even have been forbidden during the lockdown in some of the cities).

3.2.1.3 Deliveroo and similar platforms

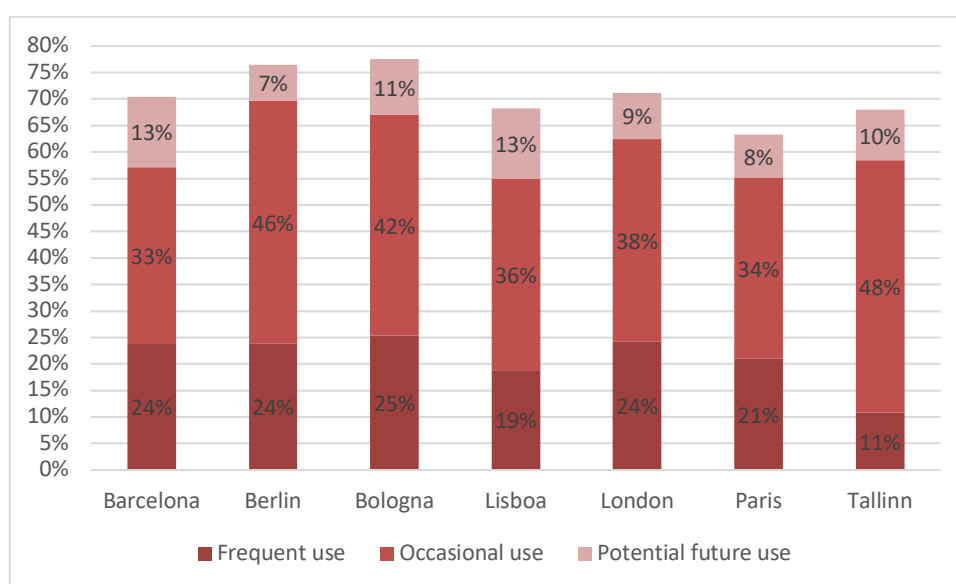


Figure 7. Use of Deliveroo and similar platforms by city.

The use of platforms like Deliveroo for having meals delivered home or to the workplace is consistently widespread across the seven cities, although there are differences in level. Frequent use varies from 11% (Tallinn) to 25% (Bologna); occasional users are most frequent in Tallinn (48%), least in Barcelona (33%). Given the high prevalence of actual use, it is not surprising to find comparatively low percentages for potential future use, ranging from 7% in Berlin to 13% in Barcelona and Lisbon.

As can be seen in Figure 7, the delivery of meals through Deliveroo and similar platforms is equally or slightly more popular as having meals delivered without making use of a platform across the seven cities. The only two cities in which more respondents indicate using meal delivery without platforms are Barcelona (66 vs. 57%) and Paris (55 vs. 53%); the biggest edge of platform delivery is seen in Tallinn (13 percentage points), followed by Berlin (8), in the other cities the difference is very narrow (and thus within the confidence intervals for the respective percentages).



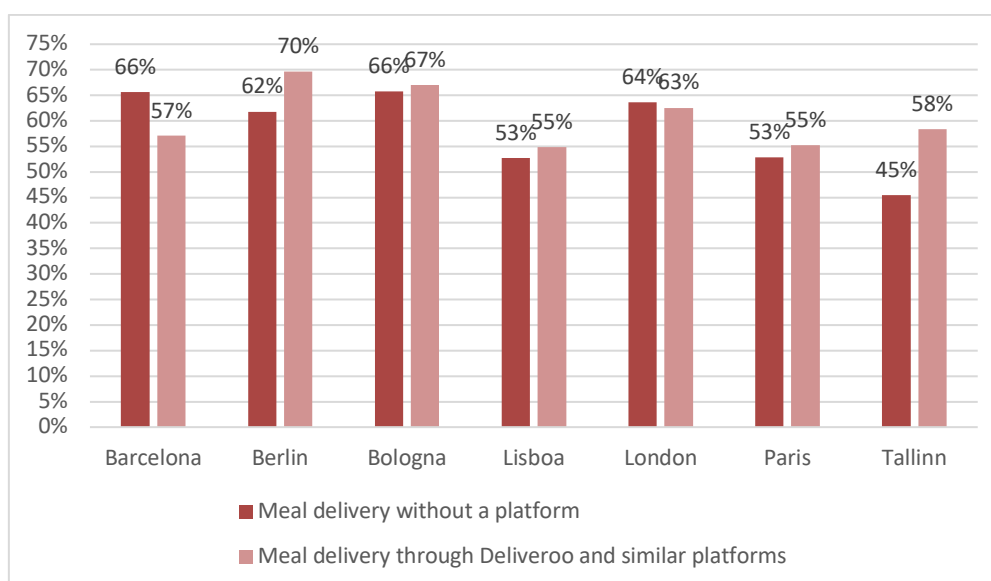


Figure 8. Use of meal delivery without a platform compared to Deliveroo and similar platforms by city.

The use of platforms like Deliveroo for having meals delivered has increased during the first Covid lockdown in all cities but London (Figure 8): The percentage of respondents whose use has increased since before the first lockdown (green bar) exceeds the percentage whose use has decreased (red bar) by between 3 percentage points (Paris) and 37 percentage points (Tallinn). The observed pattern is consistent with restaurants being closed and home office being on the rise leading to an increased significance of meal delivery (that in all likelihood has also encompassed delivery without platform use, although the increase in time being spent online due to the pandemic could have disproportionately benefited platforms like Deliveroo). The considerable number of respondents whose use of platforms for meal delivery has decreased since before the first Covid lockdown (35% in London, where this percentage exceeds the one of increased usage, 31% in Paris) could be due to some people not being able to afford the same amount of restaurant meals because of financial trouble brought about by the pandemic.

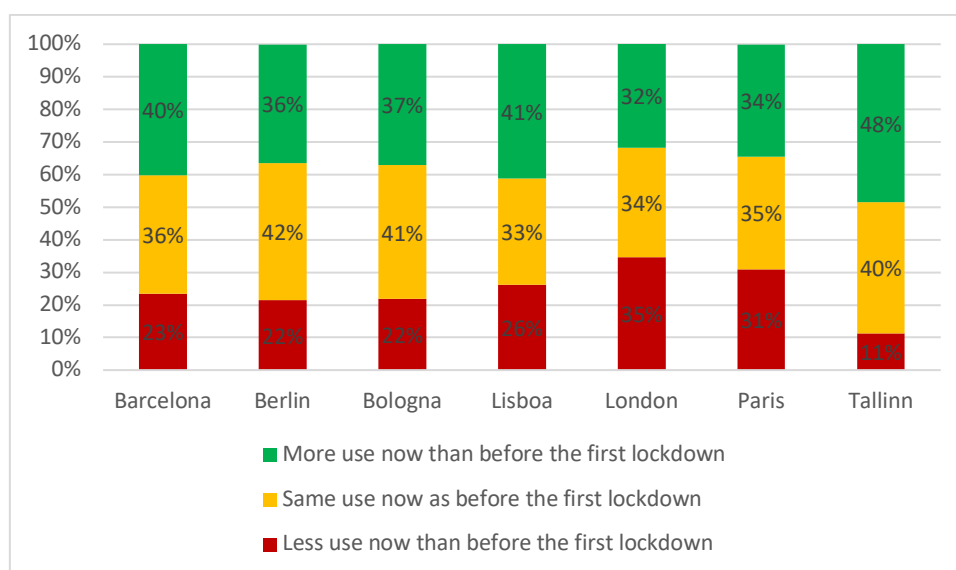


Figure 9. Use of Deliveroo and similar platforms before and after the first Covid lockdown by city.

3.2.1.4 Airbnb and similar platforms

For Airbnb and similar platforms, the following data are potentially misleading, in particular compared to the other platform types due to a different point of reference: Whereas for platforms like Uber, Helping and Deliveroo, the market that the questions about frequency of use refer to is identical to the respondents' city of residence, in the case of Airbnb respondents were asked about their use of a platform that will in all likelihood occur in places different from their city of residence. It is therefore important to not misunderstand the following results to be about the market of Airbnb dwellings in the respective city but about the use inhabitants of this city make of Airbnb and similar platforms when they travel to other places.

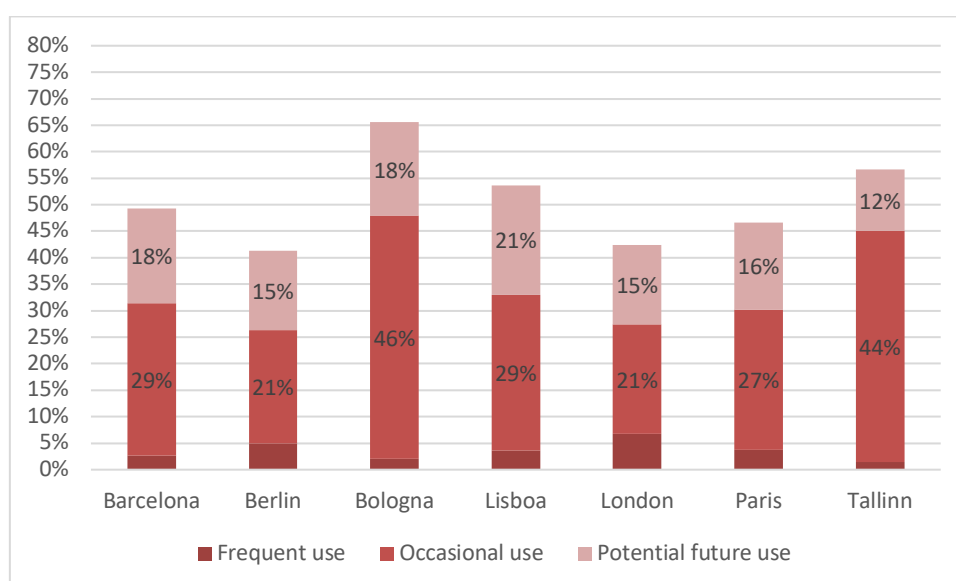


Figure 10. Use of Airbnb and similar platforms by city.

Figure 10 shows a distinct difference in level between the percentages for frequent and occasional use: While for frequent use of platforms like Airbnb, the highest value is 7% in London (lowest 1% in Tallinn), occasional use is as high as 46% or 44% (Bologna and Tallinn), in the other cities, between 21% (Berlin, London) and 29% (Barcelona, Lisbon). The low number of frequent users is hardly surprising given that this category requires weekly traveling and the pandemic has reduced both the necessity and possibility of traveling with such a high frequency. It is rather the high percentage of occasional users that is counterintuitive (and even potentially implausible), one interpretation being that the respondents at least partly referred to their use of platforms like Airbnb before the onset of the pandemic (which is quite plausible especially for very infrequent use given that the least frequent category is “less than once in three months”).

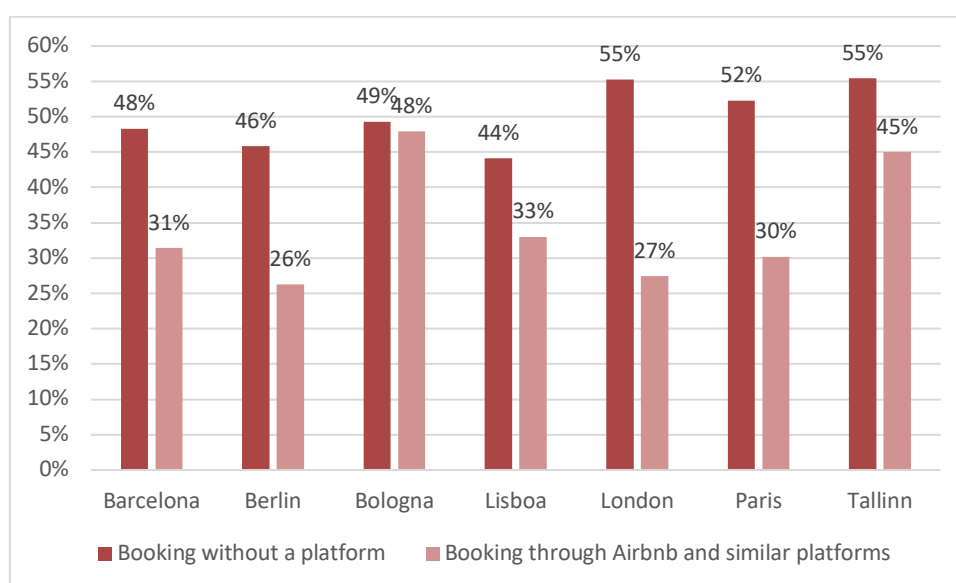


Figure 11. Booking through Airbnb and similar platforms compared to booking without a platform by city.

The comparison of booking through Airbnb and similar platforms and booking without making use of platforms (Figure 11) shows the latter to be more frequent in all cities. However, the gap between the two ways varies substantially between only 1 percentage point in Bologna and 28 percentage points in London.

The restrictions to traveling due to the pandemic clearly show in the results regarding use of Airbnb before and after the first Covid lockdown, despite the data having been collected after the lockdown and thus in a period when at least some traveling should have been temporarily possible: The amount of respondents whose use has decreased exceeds the amount of respondents with an increase in use in all cities, with the difference between the two subgroups between 10 percentage points (Tallinn) and 42 percentage points (Barcelona). Again, the amount of decrease may at least partly be due to the exact amount of restrictions still or once again in place in each city at the time of asking.

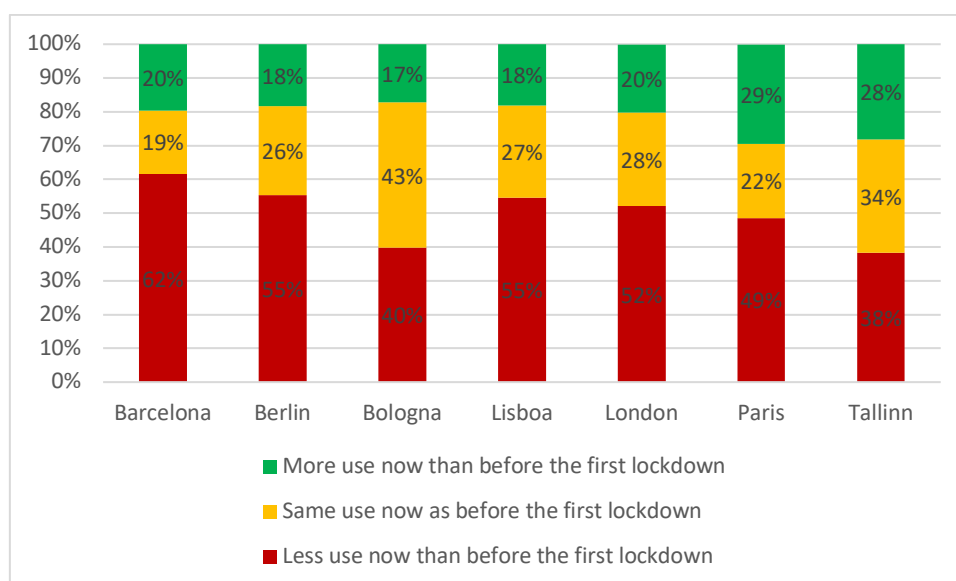


Figure 12. Use of Airbnb and similar platforms before and after the first Covid lockdown by city.

3.2.1.5 Exploring regression models

As stated above, the quantitative survey was designed with the main objective of providing a database to complement the qualitative work within the PLUS project. This implied a broad scope to cover several aspects of the focal platform types and their impact in different urban contexts, as opposed to specifically tailoring the survey to the requirements of addressing specific research hypotheses with specific multivariate methods. Moreover, the project structure centred around comparisons between four platform types across seven European cities also implies a broadness of perspective that runs somewhat counter to the logic of narrowed-down model optimisation that is a characteristic of most quantitative research papers.

With this background (and the limitations it implies) in mind, it was still deemed desirable to explore relations between the use of the four platform types in the seven cities and potential factors of influence in a multivariate way. To avoid doing this in a completely non-theoretical way, the following threefold framework was developed:

- The decision to have a service carried out through a platform instead of a “regular” service provider can be understood as an example of economic optimisation in the sense of a rational-choice, homo oeconomicus kind of approach. This suggests taking a look at factors of relevance for the kind of rational decision-making this framework is centred on, i.e., prices, availability, scope and quality of service provision, etc.
- Complementary to this approach, an equally longstanding perspective assumes that consumer decisions cannot be properly understood within a homo oeconomicus framework alone, but prominently involve one or more non-universalist elements, i.e., value judgements, preferences shaped by social, educational or personal background, implicit assumptions regarding the quality of available options, or similar concepts



along these lines. This implies exploring potential effects of variables that either mirror respondents' subjective stance towards a platform type or serve as proxies for socially shaped preference patterns.

- A third category of potentially relevant factors could be described with Amartya Sen's capability approach,⁴ i.e., in order to act in accordance with one's judgements and/or values, one has to have the technical and practical capability to do so. In the context of the platform economy, this perspective has a straightforward technical dimension which is often discussed under the heading of digital literacy: To make a decision to use (or not to use) a platform for having a service carried out presupposes the knowledge that this platform type is available (which is more likely the more time is spent online) and the capability to access and use the platform on the internet.

The survey data include relevant variables for all three categories just introduced: Respondents were asked for their agreement with a list of statements regarding the urban impact of each platform type, some of which refer to factors relevant for the rational choice framework, while others can be seen as indicators of a critical stance towards the respective platform type. Socially shaped preference patterns can be explored through the variables educational degree, age and gender. As a measure of digital literacy, a simple additive index was calculated based on items measuring online activity including time spent on social media, working online and shopping for groceries as well as non-grocery products.

As the social distribution of digital literacy is generally believed to include a generational component, age may also be conceived as a proxy variable for digital literacy. However, as the index just mentioned directly measures the level of individual online activity, a separate effect of the age variable in the regression model would more likely indicate a difference in preferences between age groups, e.g., that elderly consumers are more reluctant to try out new products or services (even if they would be technically capable of doing so).

A similar remark can be made for the variable educational degree: A higher educational degree likely increases the time spent online (overall and especially at work) and thus the likelihood of being both exposed to online platforms and technically competent to use them. But, as the level of online activity is measured by the index, a separate effect of educational degree would rather be indicative of differing preferences between educational levels, which may in turn reflect the social structure within which people with differing educational levels hold different positions.

The multivariate method chosen for exploring between was standard linear regression.⁵ In the following, a brief overview of the regression modelling for each platform type by city is

⁴ See <https://www.cmiuniversal.com/en/amartya-sens-capability-theory-approach/> for a short accessible introduction.

⁵ See <http://www.stat.yale.edu/Courses/1997-98/101/linreg.htm> for a brief accessible introduction, or Olive, 2017 for a current textbook option.



presented in the form of a table. All results shown in the tables are based on standard linear regression models calculated in SPSS,⁶ with the frequency of using the respective platform type as the dependent variable and the potential factors discussed above as independent variables (with the exception of gender, all independent variables are continuous). The tables consist of standardised coefficients for the independent variables; only significant coefficients (level 0,05) are included in the table, otherwise the respective cell is left blank. To provide an intuitive overview of the coefficients' relative magnitude, the traffic lights logic is used once more: The larger a coefficient's positive value, the redder its cell appears in the table, negative coefficients turn greener with magnitude; smaller coefficients are light-red/light-green turning into orange.

	Barcelona	Berlin	Bologna	Lisbon	London	Paris	Tallinn
Age		-0,068		-0,163	-0,239	-0,141	-0,108
Highest attained education	0,190			0,133	0,117	0,062	
Gender		0,110		0,100	0,138		
Intensity of Online Activity	0,337	0,373	0,183	0,290	0,303	0,287	0,309
"Uber and similar apps are making it difficult for taxi drivers and companies to attract enough customers"							
"Uber and similar apps are cheaper than regular taxis"	0,067	0,082					0,141
"Uber and similar apps are offering a better service than regular taxis"	0,068	0,169		0,143	0,262	0,203	0,270

Table 2. Significant regression coefficients for using Uber and similar platforms (standardised coefficients; significance level 0,05)

	Barcelona	Berlin	Bologna	Lisbon	London	Paris	Tallinn
Age					-0,132	-0,130	
Highest attained education	0,097						
Gender	0,064	0,115			0,077	0,087	0,167
Intensity of Online Activity	0,197	0,317	0,273	0,273	0,140	0,170	0,059
"Helping and similar apps make it easier to get a domestic service carried out short-term"	0,072				0,103	0,090	
"Helping and similar apps are cheaper than other providers"			0,170	0,170			0,295
"Helping and similar apps are making it difficult for other service providers to attract enough customers"	0,107				0,102		

Table 3. Significant regression coefficients for using Helping and similar platforms (standardised coefficients; significance level 0,05)

⁶ Missings were excluded pairwise, the method was enter.



	Barcelona	Berlin	Bologna	Lisbon	London	Paris	Tallinn
Age	-0,117	-0,161	-0,150	-0,114	-0,171	-0,237	-0,293
Highest attained education	0,133			0,213	0,057	0,085	
Gender	-0,068				-0,047		
Intensity of Online Activity	0,320	0,348	0,280	0,393	0,240	0,261	0,279
"Deliveroo and similar apps make it easier to have a meal delivered home or to work"	0,132	0,185		0,140	0,109	0,132	0,153
"Deliveroo and similar apps are faster than regular food delivery"	0,167	0,120	0,295	0,110	0,163	0,192	
"Deliveroo and similar apps increase waiting times when eating at a restaurant"		-0,068	-0,098	-0,051	0,023	-0,048	

Table 4. Significant regression coefficients for using Deliveroo and similar platforms (standardised coefficients; significance level 0,05)

	Barcelona	Berlin	Bologna	Lisbon	London	Paris	Tallinn
Age		-0,068		-0,184	-0,164	-0,123	
Highest attained education	0,131			0,162	0,064	0,102	
Gender		0,134			0,050	0,076	
Intensity of Online Activity	0,300	0,328	0,236	0,183	0,233	0,268	0,135
"Because of Airbnb and similar apps, residential areas become more and more touristic"		0,103					
"Airbnb and similar apps are making it difficult for the existing hotels and BnBs to attract guests"	0,065				0,132		
"Airbnb and similar apps lead to higher rents for the inhabitants"							
"Airbnb and similar apps offer inhabitants an opportunity to earn extra money through renting out living space"	0,088	0,068	0,184	0,154	0,115	0,080	

Table 5. Significant regression coefficients for using Airbnb and similar platforms (standardised coefficients; significance level 0,05)

As can be seen in the tables, the intensity of online activity shows the greatest consistency in the regression models across platform types and cities – it yields the highest coefficient in all models but one (Helping in Tallinn). This can be taken as evidence for platforms indeed depending on the digital literacy of potential customers to have a chance of winning them over. It also hints at platforms likely benefitting from the increase in online activity brought about through the pandemic.

Another reason to see a general chance of expansion for platforms in the seven cities is the effect of age on platform use, which was not as universally observed (and mostly lower) as the coefficient for online activity but, with the exception of Helping (where the coefficients are generally lower than in the models for the other three platform types), does play a role in most cities. If interpreted as a reluctance of elder respondents to try out new ways of service



provision, this effect is likely to diminish with the percentage of digital natives continuously on the rise in the demographic with the passing of time.

The models also show that reasons to see platforms as the better option compared to conventional service provision do play a role for the use of platforms, in particular for platforms like Uber and Deliveroo. On the other hand, evidence for a connection between taking a critical stance towards a platform type and a reluctance to use it is scarce, with the only example a few low coefficients in the Deliveroo models.

Gender differences, if significant, are of a low magnitude. Effects of educational degree, which as sketched above can be understood as an indicator of sociostructural differences, vary substantially between cities: In Tallinn, Berlin and Bologna, no significant coefficients for education were observed; on the other end, Barcelona and Lisbon show the highest coefficients for educational degree across all platforms except the rather atypical models for Helping; London and Paris are somewhat in between with significant coefficients for education in the Uber, Deliveroo and Airbnb models, however of a lower magnitude than Barcelona and Lisbon.

3.2.2 Income-earning activity through platforms – platform labour

Complementarily to the preceding subchapter, this chapter is dedicated to people becoming active and earning income through the four platform types analysed in PLUS, i.e., what is often termed platform labour. If in this chapter, the concept of activity through platforms is used more frequently than platform labour, this is due to referring to the four platform types simultaneously including renting out one's own living space through platforms like Airbnb (for which the concept of "labour" appears somewhat less fitting than for the other three types).

The structure of the chapter is analogous to the previous one as far as the data allow; where they do not, e.g., due to a differing construction of the questionnaire or to insufficient numbers, this is explained and the alternative is introduced. Towards the end, the chapter includes additional information on activity through platforms and on aspects of working conditions and working climate in platform activity compared to more regular work.

In the figures on the following pages, the data regarding activity through the four platform types will be presented within the following two categories:

- Weekly activity: Indicates the percentage of respondents who are active through the respective platform type at least once or twice a week. This can be regarded as the core category of what is generally understood as platform labour in the sense of it being done regularly (if not at full-time hours).
- Infrequent activity: Indicates the percentage of respondents who are active through the respective platform type from once or twice a month to less than once in three months. Labelling this category infrequent is intended to highlight the categories of very low frequency this category includes.



At this point, it is reasonable to point out that while differences between city-specific percentages of activity through platforms will be reported and discussed on the following pages, it should be kept in mind that many of these differences are within the margins of the respective confidence intervals, i.e., a different sample based on the same population may yield a different order of city-specific percentages than the one presented here (which also holds true for some of the results regarding the customer role presented in the previous chapter, as already pointed out above).

To demonstrate this through an example: For the percentages of weekly activity through platforms like Uber as shown in Figure 13 just below, the confidence intervals allow for all cities but London and Barcelona to be ranked from 1 to 7 in (hypothetical) alternative samples according to the magnitude of weekly activity percentages; London could only be ranked 1 to 6, Barcelona 2 to 7. This closeness (and hypothetical reversibility) of small percentages like the ones arrived at in most data on platform labour is also a valid reason to try going beyond these percentages, both within the PLUS project and in further research. It is also the reason for refraining from a detailed comparison between the survey results and the percentages of platform workers obtained in prior research. For a detailed overview of prior results in this regard, including a compilation and review of questions used to ask for platform see OECD (2019).

3.2.2.1 Uber and similar platforms

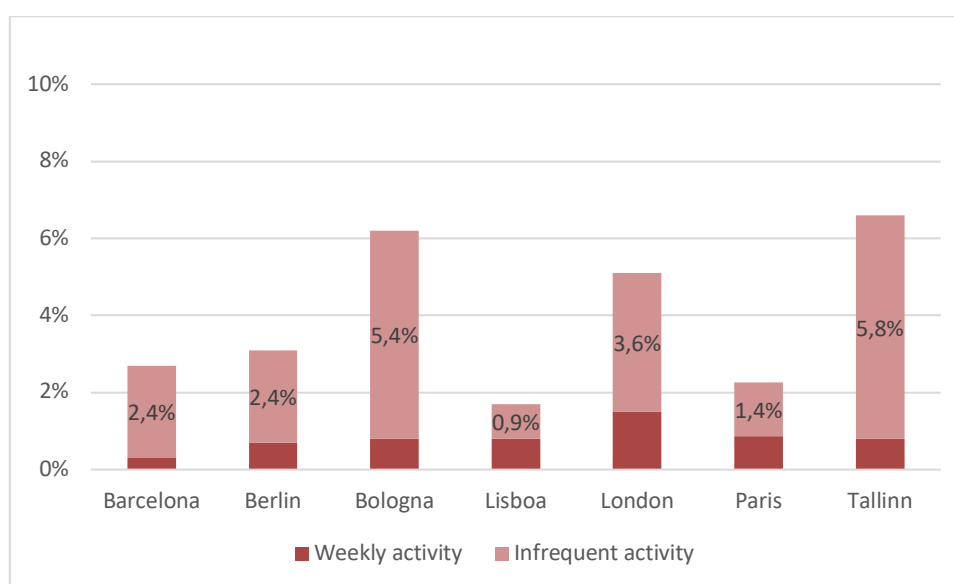


Figure 13. Activity through Uber and similar platforms by city.

The percentage of respondents who indicate weekly activity through platforms like Uber ranges from 0,3% in Barcelona to 1,5% in London, with the other cities close to 1%. For occasional activity through Uber and similar platforms, the percentages are more spread out, from 0,9% in Lisbon to 5,8% in Tallinn. In absolute numbers, respondents indicating weekly activity through Uber and similar platforms amount to between four respondents (Bologna,

Tallinn) and 29 respondents (London); infrequent activity is reported by 11 (Lisbon) to 69 respondents (London).

Given that the lowest category offered in the questions for frequency of activity through platforms is “less than once in three months”, and given the impact of the pandemic and the resulting lockdowns, the percentages of infrequent activity for Uber as well as the other platform types allow for (at least) three interpretations (which aren’t mutually exclusive): First, there really may be a pool of people who are active as Uber drivers, but very infrequently. Data to be discussed below indicate that many respondents declare their activity through all four platform types as an occasional extra alongside their main job, which can be seen as support for this interpretation. Second, the percentages may also include respondents who were active as Uber drivers on a more regular basis before the onset of the pandemic but cut down their activity due to a decline in demand or because they had more important things to take care of during the lockdowns. Third and somewhat complementarily, there may be respondents who have given driving for Uber a try (possibly induced by increased online time during the lockdown, and/or a need to earn extra cash due to pandemic-related economic trouble) but have not or not yet established a more frequent pattern of activity. This plurality of possible trajectories of activity behind the results for infrequent activity should also be kept in mind regarding the other platform types.

3.2.2.2 Helping and similar platforms

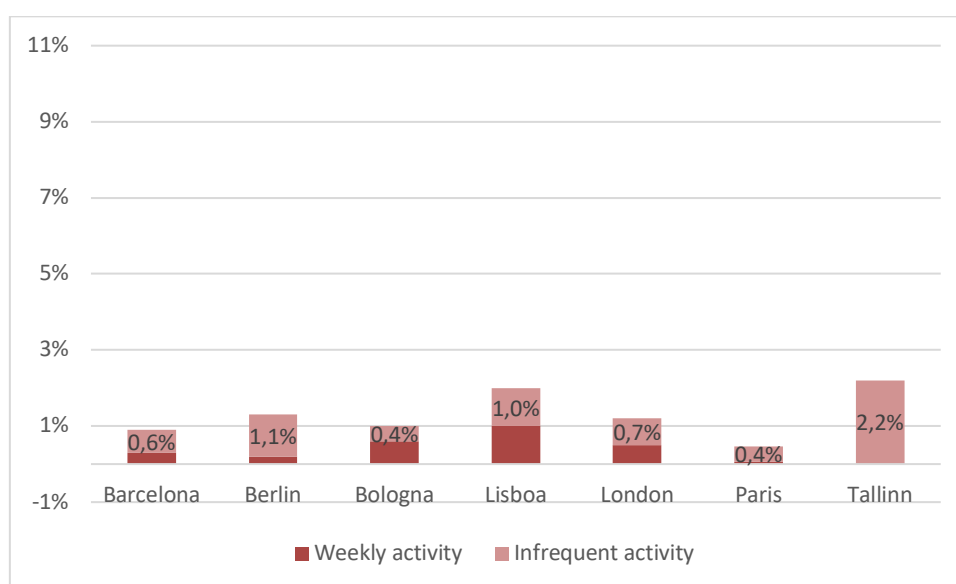


Figure 14. Activity through Helping and similar platforms by city.

As already observed for the customer role, the levels of activity are lower for Helping and similar platforms than for the other platform types covered by the PLUS project. Weekly activity through platforms like Helping was indicated by no respondents in Tallinn, 0,1% in Paris, 0,2% in Berlin and 0,3% in Barcelona. In London, Bologna and Lisbon, weekly activity is a bit more frequent (0,5%, 0,6% and 1%, respectively). In most cities, the percentage for being

infrequently active through Helping or similar platforms is not or only marginally higher than the one for weekly activity, the only exception being Tallinn with 2,2% infrequently active.

3.2.2.3 Deliveroo and similar platforms

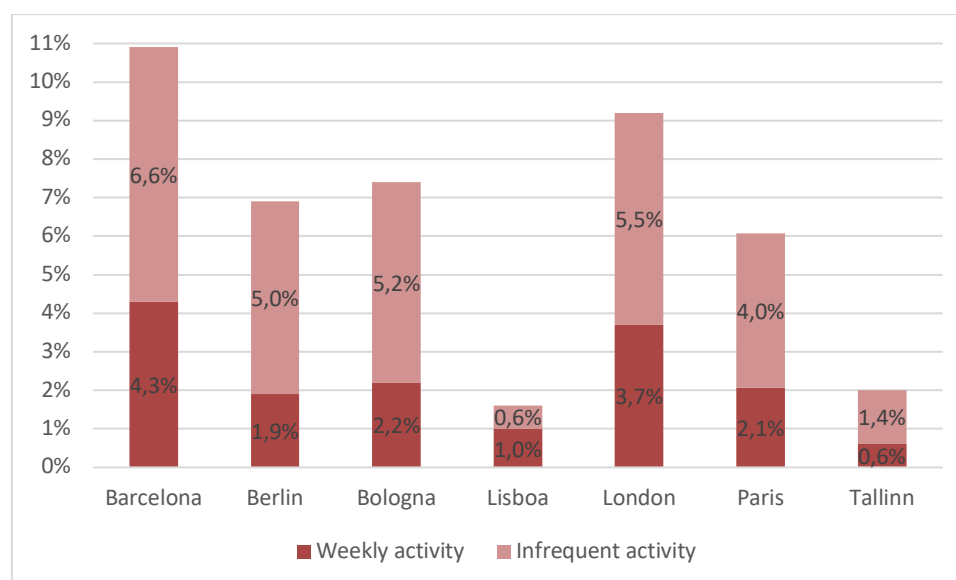


Figure 15. Activity through Deliveroo and similar platforms by city.

With the exception of Tallinn and Lisbon (which were the only two cities not selected for the qualitative analysis of this platform type in PLUS), levels of activity through Deliveroo and similar platforms appear quite substantial, in particular in Barcelona and London with the number of respondents indicating weekly activity as high as 4,3% (Barcelona) and 3,7% (London), while infrequent activity is reported by more than 5% in four cities (Barcelona, Berlin, Bologna, London).

These high levels may (among other interpretations, see above) reflect the dynamics brought about by the pandemic: for one thing, there was a substantial gain in popularity for meal delivery platforms during the first Covid lockdown as shown in Figure 9 above; at the same time, employment in many fields, prominently including restaurants and other eateries, has come under considerable pressure due to the pandemic. This could have resulted in people seeing working for platforms like Deliveroo as a feasible option to earn (extra) money in a difficult period. Of course, a closer look at Figure 9 shows that this explanation is not equally convincing for all cities – e.g., Tallinn shows the biggest gain in meal delivery through platforms like Deliveroo between before and after the first lockdown while displaying the lowest activity percentages of all cities but Lisbon.

In principle, there is also the possibility that some respondents had difficulties distinguishing between being active through Deliveroo and similar platforms and being a customer (although there is no specific evidence for this apart from the activity percentages being high), or that the plausibility check of the data had limited impact on this platform type as it is the most notorious one in all cities but Lisbon and Tallinn and thus a high percentage of respondents

was familiar with the example platforms. As it is, the data show the highest activity rates for platforms like Deliveroo in all cities but Tallinn (where platforms like Uber attract most activity).

3.2.2.4 Airbnb and similar platforms

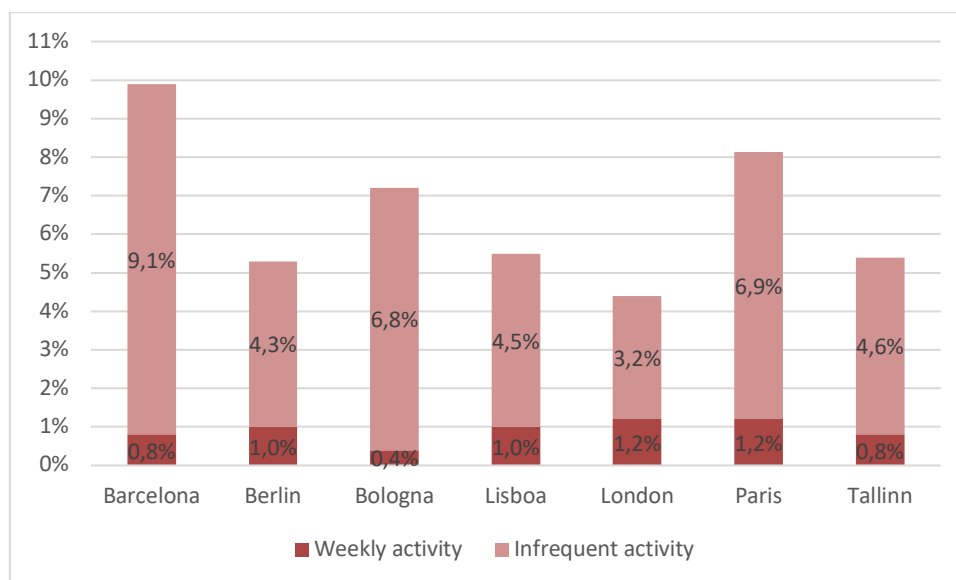


Figure 16. Activity through Airbnb and similar platforms by city.

After clarifying in the previous chapter that the data on platforms like Airbnb presented there did not refer to respondents' cities of residence as a market, but to their making use of these platforms when traveling elsewhere, it is important to stress that the data on activity through Airbnb and similar platforms do pertain to the city they were collected in. Figure 16 shows a contrasting picture for weekly and infrequent activity: While the former is very low, ranging from 0,4% in Bologna to 1,2% in London and Paris, the latter is as high as 9,1% in Barcelona, and 6,9% in Paris and 6,8% in Bologna.

The low percentage of weekly activity is plausible against the background of (still, or again, or partly) restricted traveling due to Covid. The higher percentages for infrequent activity could, as discussed in the Uber subchapter above, include (a) respondents whose pattern of activity through platforms like Airbnb is genuinely characterised by infrequency (e.g. by renting out their living space only while they go on holiday themselves), (b) respondents whose level of activity through Airbnb decreased due to the pandemic and the aforementioned travel restrictions, and/or (c) respondents who experimented with renting out their living space through Airbnb or similar platforms but did not stick to it long-term.

3.2.2.5 Future potential, Covid-induced changes

The survey data do not allow for reporting the percentage of respondents likely to become active through a platform type in the future (while currently not) in the same way as for the customer role. Instead, Figure 17 shows the percentage of respondents who are already active

through a platform type and deem it likely that this activity will increase in the future (due to an unreliable number of cases in some cells, it is not possible to show a breakdown by cities). If the indicated likelihoods materialise, the gap in activity levels between Helping and the other platform types would become even wider as respondents active through domestic services platforms show the lowest percentage of likely increase in activity at 27%, while for those active through Uber and Deliveroo, this likelihood reaches 38%.

Generally, the percentages shown in Figure 17 indicate a potential of increasing the volume of platform labour through intensifying the workload of those already active through one of the four platform types, but it has its limits as there is a majority of over 60% currently active across all four types who have a neutral or negative stance towards becoming more active. This is in line with other survey results indicating a low amount of weekly hours even among those who are weekly active on one of the four platform types, as well as a majority of respondents seeing their activity through platforms as a means of earning extra money (see below).

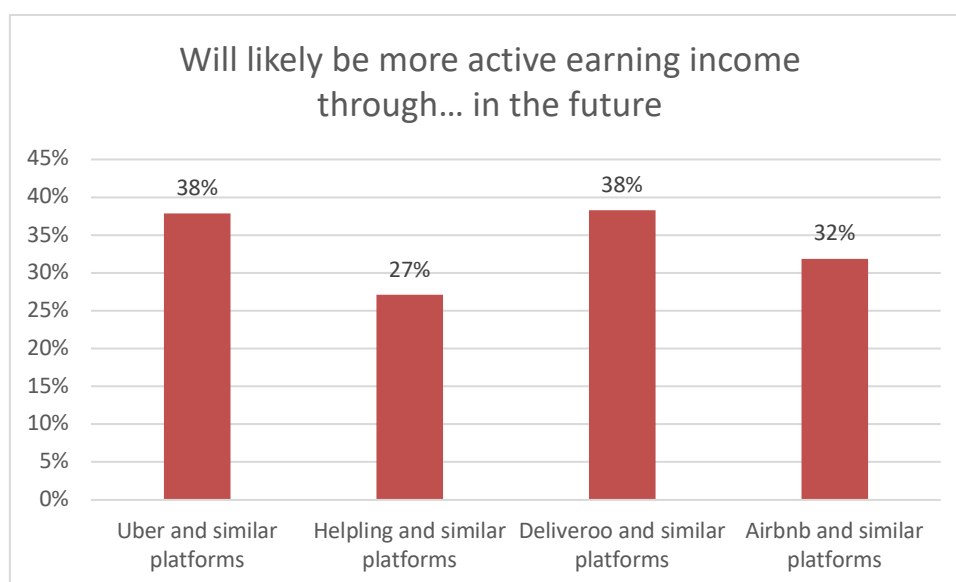


Figure 17. Percentage of respondents currently active through a platform who believe they will be more active in the future, by platform type.

Another perspective on potential future developments is offered by Figure 18 which shows the percentage of respondents who are currently not active through any of the platform types analysed in PLUS but attribute a high likelihood to becoming active through a platform in the future. In Barcelona, London, Paris and Tallinn this percentage is at or a little below 10%, in Berlin markedly lower (4%), in Bologna and Lisbon higher (13% and 17%).

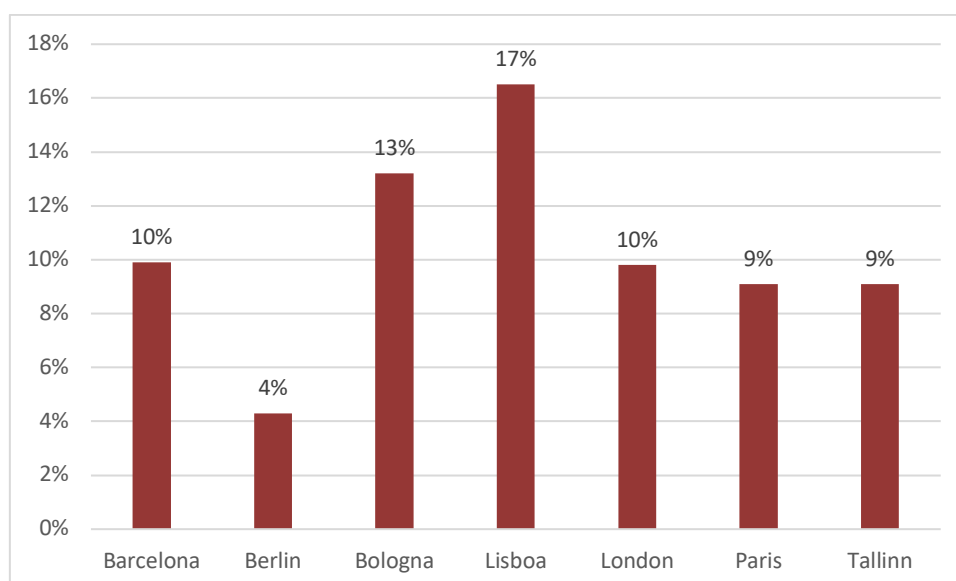


Figure 18. Percentage of respondents currently not active through a platform who believe they will likely become active in the future, by city.



Figure 19. Activity before and after the first Covid lockdown by platform type.

Differences in activity through the four platform types between before and after the first Covid lockdown cannot be displayed both city- and platform-specific as for the customer role due to insufficient numbers of cases. Instead, Figure 19 shows these differences using the familiar traffic-light-logic for all cities together (a special weight was calculated to ensure equal representation of the seven cities in the overall sample); like in the previous subchapter, the data do not include respondents who were active through the respective platform type neither before nor after the first lockdown.

The dynamic brought about through the onset of the pandemic differs between the platform types, with Uber etc. characterised by an almost equal polarisation between reduced and

increased activity (43 and 41%, respectively), Helping showing a clear decline of activity (58% decrease against 31% increase), and both Deliveroo and Airbnb and similar platforms displaying identical numbers with increase exceeding decrease by 8 percentage points (43% to 35%).

The high percentages of increased activity for all platform types but Helping invite the hypothesis that the pandemic has, at least in its initial phase, made activity through platforms rather more attractive than harder to carry out. A look at the percentage of respondents who were not active before the first lockdown is consistent with this – between 6% (platforms like Helping) and 20% (platforms like Deliveroo) of respondents whose activity has increased have started their activity during or after the first lockdown. Two potential explanations have already been mentioned throughout the previous chapters (also regarding the customer role), namely (a) that the general increase in time spent online during the lockdown could have led people to discover platforms as a means of earning extra money, and (b) that actual or feared economic difficulties due to the pandemic may have made means of earning extra money more important to some people.

Regarding the timing of increasing activities through platforms (either during or after the first lockdown), the dynamic behind the overall numbers is likely to differ between the platform types: While respondents likely have increased their activity through Uber and Airbnb after the lockdown (given the decrease in use during the lockdown), activity through Deliveroo and similar platforms might already have been increased during the lockdown given the relevance gain for meal delivery in that period).

3.2.2.6 Zooming in on platform labour

In order to get a clearer picture about the patterns and parameters of activity through the four platform types, the survey included more specific questions for respondents who indicated to be weekly active through (at least) one platform type, in particular regarding working time and income. Due to the small percentage of weekly activity through all platform types, it is not possible to display city-specific results; for income, even the overall number of respondents who were willing to share this information is too small to be analysed.

Figure 20 shows the average hours usually spent on activity through the respective platform. The data suggest that even for the respondents who indicate to be weekly active through one of the four platforms, this activity has the status of a part-time pursuit: Respondents weekly active through platforms like Uber and Helping (for the latter of which the number of cases is particularly low) indicate an average of a little over 10 hours for their activity; for respondents with weekly activity through Deliveroo, Airbnb and similar platforms, this average is a little above 8 hours. As these averages are based only on the information by respondents with weekly activity and as there are more respondents who indicate less than weekly activity for most platform types in most cities, it can be assumed that an average of weekly activity for all respondents active through a platform type would be markedly lower than the values just mentioned.



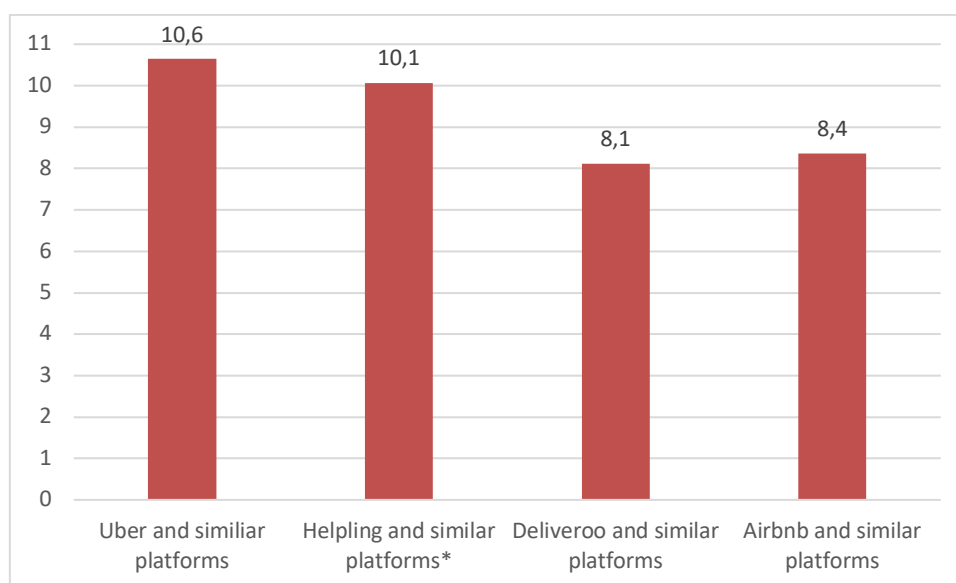


Figure 20. Hours usually spent per week for activity through platforms by type. Only respondents with weekly activity through the respective platform type. * Number of cases very low.

Respondents with weekly activity through one of the four platform types were also asked for the typical timing of their activity. Their specifications are consistent with the assumption of activity through platforms mostly being supplementary to other activities, as Figure 21 shows: The highest percentages are observed for weekends and off-peak times for all three platform types included in the graph (Helping being excluded due to the number of cases being too low).

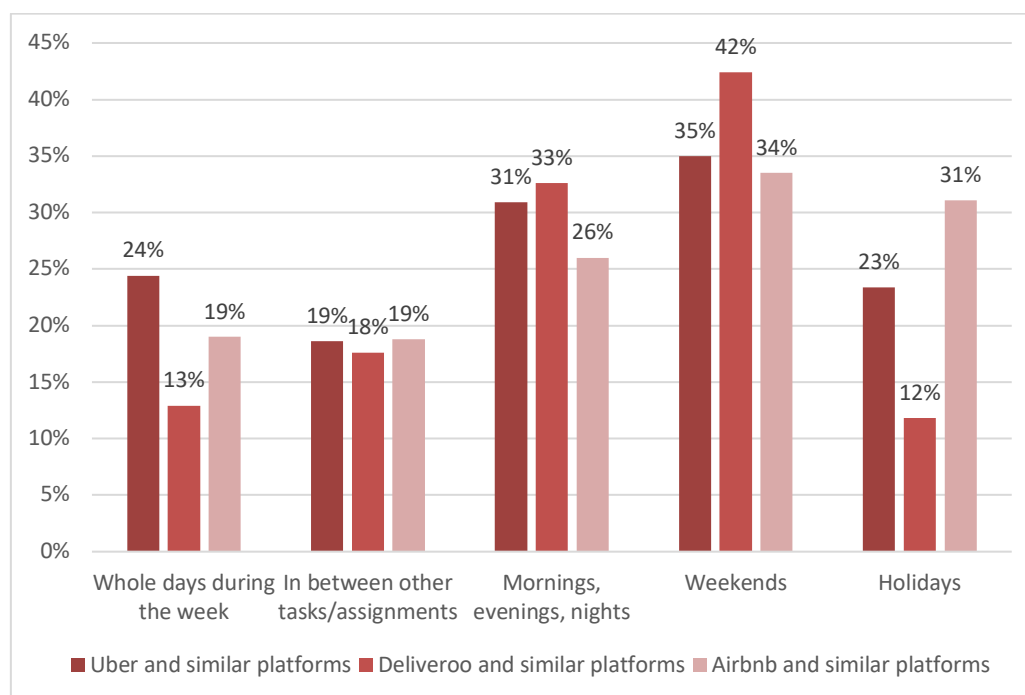


Figure 21. Typical timing of activity through platforms by platform type. Helping and similar platforms not included due to insufficient number of cases.

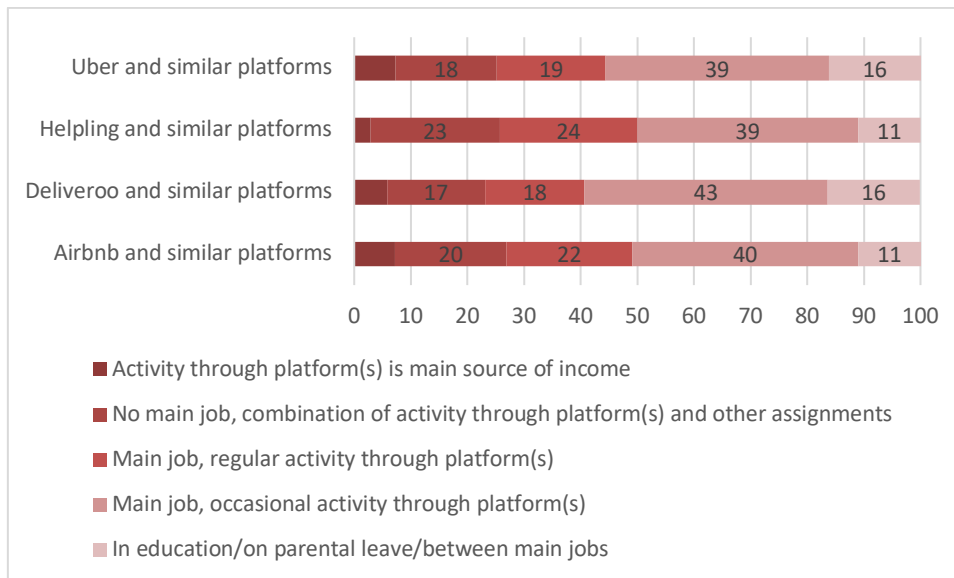


Figure 22. Individual employment situation by platform type (percentages).

All survey respondents who indicated activity through at least one platform type were asked to assign themselves to one of five employment situations for which short descriptions were provided. Figure 22 shows the distribution of the five situations for respondents indicating activity (both weekly and infrequent) through the four platform types analysed in the PLUS project. The results reinforce the impression from Fehler! Verweisquelle konnte nicht gefunden werden. of activity through the four platform types being predominantly carried out as an extra in addition to a main job or other assignments: Respondents indicating a main job and either regular or occasional activity through one or more platform(s) amount to between 58% (Uber) and 63% (Helping) of all respondents active through the respective platform type, whereas only between 3% (Helping) and 7% (Uber, Airbnb) indicate that their activity through platform(s) is their main source of income.

Like for the use of the four platform types as a customer (see above), linear regression models were also explored for activity through Uber, Helping, Deliveroo, Airbnb and similar platforms. Given that the decision for or against a professional (or at least money-earning) activity is not identical to a consumer's decision as in the case of using a platform as a customer, and that the statements on the platforms' urban impact were less fitting for modelling the decision to become active through a platform, the conceptual framework was adapted. This led to the inclusion of the regional unemployment and youth unemployment rates as city-specific indicators of the relevant labour market context. As these indicators could only be used for the whole sample, the weight to balance out the differences in sample size between cities was used again.

However, while some coefficients did turn out significant, both general model fit and coefficients were markedly below the magnitude observed in the models pertaining to the customer role, leaving more important factors undetected and thus not vindicating more detailed reporting on platform type level.



	Barcelona	Berlin	Bologna	Lisbon	London	Paris	Tallinn	All cities
Age				-0,111	-0,080	-0,100		-0,082
Highest attained education	0,122							
Gender				0,120				
Intensity of Online Activity	0,151	0,106		0,203		0,082		0,090
Regional youth unemployment								
Regional unemployment								0,041

Table 6. Significant regression coefficients for activity through all four platform types by city (standardised coefficients; significance level 0,05).

To potentially increase the number of significant coefficients as well their magnitude, activity through all of the four platform types was compiled into one variable. As shown in Table 6, both the number and magnitude of coefficients are still considerably lower than in the models for the customer role, with online activity and age the most frequent factors and no significant coefficients at all in Bologna and Tallinn. A potential explanation for this lower level of model fit and coefficients' magnitude is that if and to which degree a respondent becomes active through one or more of the platform types analysed in PLUS is likely influenced by the individual employment trajectory (both the present situation and the path leading to it), as well as a respondent's financial background (which may have undergone significant changes due to the pandemic) and that these and similar factors are not sufficiently measured by employment rates on city level (although the general unemployment rate on city level does yield a significant coefficient, albeit of low magnitude). Of course, the generally low number of respondents indicating activity through platforms is also likely to play a role.

3.2.2.7 Working conditions in platform labour compared to regular jobs

As the PLUS project is prominently concerned with the working conditions and culture of (platform) labour, a list of items was included in the survey aimed at capturing aspects of working conditions and working climate both in activity through platforms and more conventional or regular work. Most of these items have been part of the European Working Conditions Survey's regular questionnaire and were adopted in a more or less identical way. Respondents were asked for their agreement with the items both for their main job (if they had one) and for their activity through platforms (all in one go, not separately for each platform type due to the necessity to avoid an overlong questionnaire).

To get started with this kind of topic, respondents were asked (also in analogy to the EWCS) whether they can choose or change the order of their tasks, the methods of their work and the speed or rate of their work. As Figure 23 shows, all three questions were answered in the affirmative by a clear majority of respondents both for main jobs and platform activities, but the percentage for main jobs is consistently higher, with the gap ranging from 14 percentage points for the speed or rate item to 18 percentage points regarding the possibility to change the methods of work.



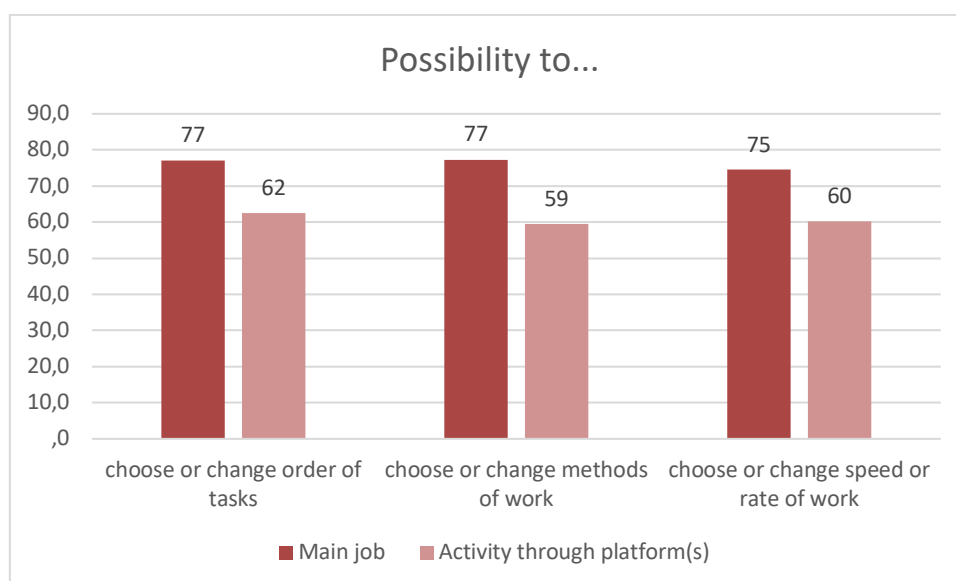


Figure 23. Items self-determination at work, by kind of occupational activity (percentages).



Figure 24. Index working conditions (value range 0 to 1) for main jobs and platform labour by city.

To condense the information from the other items measuring working conditions, it was deemed desirable to develop an index (or more than one if necessary). An exploratory factor analysis⁷ suggested to include nine items in an additive index (see Table 7 for the items included). The index's values were standardised to encompass the range between 0 and 1, with higher values indicating better working conditions. Figure 24 shows the values for main jobs and activity through platforms by city. As can be seen, the index values for the main jobs

⁷ See <http://mchp-appserv.cpe.umanitoba.ca/viewConcept.php?printer=Y&conceptID=1485> for a brief accessible introduction to factor analysis

are higher than for platform activity in all cities, but the margin is not big with the highest difference occurring in Tallinn (0,58 against 0,40), the smallest in Lisbon (0,51 against 0,47).

On the level of the individual items, the biggest difference between main jobs and activity through platforms is observed for the item pertaining to clear expectations at work, followed by support by colleagues; on the other end, the least difference occurs for being consulted before objectives are set, followed by involvement in improving the work organisation – for both items, agreement is rather low for both main jobs and platform activities.

Items
My colleagues help and support me
My superior helps and supports me
I am consulted before objectives are set for my work
I am involved in improving the work organisation or work processes of my department or organisation
I can take a break when I wish
My job/activity gives me the feeling of work well done
I am able to apply my own ideas in my work
I have the feeling of doing useful work
I know what is expected of me at work

Table 7. Items included in the working climate index.

What is also worth noting is that for activities through platforms, the percentage of respondents who indicate that an item is not applicable to their work is markedly higher than for main jobs across most items; the highest percentages occur for the first four items listed in Table 7 (between 18% and 21%) which all pertain to issues of organisational support and cooperation that is obviously viewed as non-existent (or beyond their realm) by many respondents active through platforms. The difference between main jobs and platform activity in the rate of perceived non-applicability is particularly high for having the feeling of doing useful work and, again, clear expectations at work.

The only item for which the comparison between main jobs and activity through platforms yields a counterintuitive result is an item about experiencing stress at work (not included in the index discussed above). Here, the average agreement is slightly higher for the former (i.e., main jobs) than for the latter (work through platforms). An interesting context is that in the explorative factor analysis, the stress item was grouped together with an item asking for a clear boundary between work and free time; as these two items are scaled in opposite directions, this indicates an inverse correlation between them. Without overinterpreting this rather small detail, it fits into the context of platform activity in most cases being carried out in addition to a main job or other assignments with a low amount of weekly hours, thus being less likely perceived as stressful while at the same time reducing the boundary between work and free time (maybe even blurring the respective definitions).



Also, not part of the index (and not taken from the EWCS) were four items on surveillance by superiors and being rated by customers. As expected, agreement to these items is clearly higher for activity through platforms than for main jobs, with the exception of the possibility to object to unjustified ratings, agreement to which is equally low for both categories.



4. PART II SECTORAL ANALYSIS

4.1 Methodology

4.1.1 Secondary data collection at municipal level

In order to establish a database for comparing relevant industries between cities, FORBA compiled standardized data available in the Eurostat database. For this purpose, FORBA considered relevant sectoral data according to the NACE classification (I.55 Accommodation, H.53 Postal and courier activities, H.49 Land transport and transport via pipelines, N.81 Services to buildings and landscape activities, T.97 Activities of households as employers of domestic personnel) while also going down to more fine-grained 3-digit-codes in the Labour Force Survey and Regional Business Demography (Structural Business Statistics) data if available. The city level was approximated through NUTS categories (NUTS-2 or NUTS-3 level). Thus, the main challenge was to compile data as fine-grained as possible regarding both NACE- and NUTS-level, a task that could not be equally completed for all cities and sectors. Where regional (city) data were not available, we referred to standardized data at national level. The data has been downloaded and is stored in Excel format.

To receive more fine-grained information at sub-sectoral level and regional level, all city partners (LUL, UNIBO, UP13, UOC, TU, UH, CES) were also asked to search for additional data from city and/or national sources. Hence, partners sent a) NUTS-3 and NUTS-2 level information, b) sub-industry data according to the NACE classification, and c) other relevant data.

The data collection followed two instruction templates provided by FORBA, one Excel template where relevant data was documented, and one explanatory note that laid down the rationale of data collection and gave some examples.

Besides the collection of Eurostat and municipal data, FORBA carried out a literature review covering relevant quantitative reports about sectoral developments on the one hand (accommodation, transport, cleaning) and platform developments on the other hand to contextualize the data gathered.

Although the availability of internationally standardized data at city level and sub-sectoral level (LFS, business data) varies, and the complementary city-specific data is of differing origin and quality, the available data allow to observe trends in employment and economic activity at sectoral level and city level ($\pm 2009-2018$), in particular when taking into account other quantitative reports on the development of sectors and the platform economy in general. The analysis of data also includes data broken down by gender at sectoral level.

4.1.2 Expert interviews at city and EU level and city reports

Already in March 2019, FORBA and LUL prepared a guideline for expert interviews that were carried out at city level and with stakeholders at EU-level. The guideline included questions



covering general information on platform activities; economic impact; labour skills and process; social income, social protection, welfare, labour market policies; urban impact; local governance, regulation and policy. The guidelines were adapted according to the expertise of the interviewee.

Findings from the expert interviews at city level were fed into a city report (April 2019). For this deliverable, the city report gave an overview over main issues at stake at city and industry level concerning platform work and platform activities. It summarizes how online platforms affect the respective economic sectors, the employment situation, industry standards and several facets of urban space. Answers also aim to identify policies and discover (new) forms of regulation at municipal level. All in all, 58 face-to-face expert interviews in 7 cities (industry experts, local administrators, trade unions, politicians or citizens committees) were conducted by LUL, UNIBO, UP13, UOC, TU, UH, CES. At EU-level FORBA and FGB conducted 8 expert interviews (four men, four women to account for gender balance) with employer organizations and European umbrella unions (Uni Europa, ETUI, ETUC, ETF, HOTREC, labour lawyer, EFCI, EFFAT). The EU level interviews were conducted face to face and via telephone. They were summarized according to interview synopsis templates (see Annex, 7.1, for a list of interviewees per city).

4.1.3 Focus group discussions and city industry reports

Through focus group discussions the impact of platform labour on the economic and regulatory development and working conditions in specific industries should have been explored. Due to the pandemic, this method could not be put into practice in all cities due to Covid-19 constraints. Where focus group discussions could not be conducted, individual interviews replaced the focus group discussion. Focus group discussions were carried out in Berlin, Tallinn, Barcelona, individual interviews took place in Bologna, Paris, London and Lisbon. A list of interviewees is provided in the Annex (7.2). Table 8 gives an overview over platforms, industries and cities covered.

	Bar- celona	Berlin	Bologna	Lisbon	London	Paris	Tallinn	Total
Airbnb/short-term rental	X	X	X	X	X	X		6
Deliveroo/courier services	X		X		X	X		4
Helping/cleaning		X	X		X			3
Uber/passenger transport, taxi		X		X	X	X	X	5
Total	2	3	3	2	4	3	1	

Table 8. Overview Focus Group Discussions in four industries and seven cities

- Barcelona: Airbnb, Deliveroo
- Berlin: Helping, Uber, Airbnb,
- Bologna: Deliveroo, Helping, Airbnb



- Lisbon: Airbnb, Uber
- London: Deliveroo, Helpling, Airbnb, Uber
- Paris: Uber, Airbnb, Deliveroo
- Tallinn: Uber

The aim of this task was to explore the **sectoral development and the strategies of incumbent companies**. Platform companies typically enter markets where incumbent companies already established their operations, including the markets' socially and politically evolved and contested employment relations. Each of these platforms performs activities related to a specific sector – Airbnb in accommodation/hotels/short-term rentals; Helpling in cleaning; Uber in urban passenger transport; Deliveroo in courier/delivery services. City partners were asked to investigate if and how established working conditions and industry regulations, but also market access and the scope of the sector have changed for the industry incumbents since platform companies have entered these sectors. Focus group discussions and interviews followed a common guideline provided by FORBA, were recorded, and transcribed and summarized (see Annex, 7.2, for the interview guidelines and specific instructions for each industry). All focus group discussions and individual interviews were conducted online. Empirical findings were documented in seven city industry reports and interpreted for each industry structured along the three key topics: *(1) employment situation and working conditions of workers in incumbent industries; (2) changing strategies of incumbent companies; (3) new aspects of industry regulation.*

Before zooming into the four platforms and their embeddedness into the respective industries (Helpling and the cleaning sector; Uber and urban passenger transport; Deliveroo and delivery services; Airbnb and touristic accommodation), we explain our conceptual approach.

First, we elaborate on the sectoral approach to analyse relations between platforms and incumbent players in the respective industry as well as the impact of industry regulation on sectoral platforms and the other way round the impact of sectoral platforms' business strategies on industry regulations. Second, we postulate a legacy of the 'fissured' workplace in the industries where the four sectoral platforms are active. Outsourcing and subcontracting to dependent contractors, the recurrence to self-employed personnel or independent contractors, the replacement of employment relations with contractual relations and of wage determination with price determination and a downward pressure on workers' remuneration, the key role of technology and standardisation to convey and control outsourced tasks are features of the fissured workplace that also constitute key characteristics of sectoral platforms.

In the following chapters, we describe for each industry, how employment and industry strategies have developed in the last decade and what role sectoral platforms play for this development. For each industry, most important regulations that determine employment relations and working conditions in the industry are captured, some directly related to the sectoral platforms' activities.



4.2 Conceptual approaches

4.2.1 Why a Sectoral Approach?

Our conceptual approach is to look at the PLUS platforms through a sectoral lens, that means to embed platforms' operations and their modes of service provision into the employment and industry structure they find and to explore how they adapt or have to adapt – as firms – to industry-specific regulations.

The platforms' use of digital technology (means of production), labour demographics (labour supply) or new patterns of consumption (demand for new services) impact on the service quality, on incumbents' orientation and strategies in terms of how they provide services, and of course how they lobby for established employment and industry regulations. In particular, platforms' ability to 'make markets' and reduce transaction costs and information asymmetries between clients and firms significantly by using highly efficient digital tools (Aloisi, 2020; Baronian, 2020), challenged incumbents' strategies to approach customers and to provide services.

We understand 'sectoral' lens in a narrow definition, taking into account employment development, incumbent company strategies and regulatory and policy reforms in specific industries, such as passenger and urban transport, delivery services, cleaning services, including domestic work, and touristic accommodation. Changes in product markets, in the provision of services and in trade regulation over the last 30 years were considerable in the four industries and subindustries. They comprise the deregulation of trades, such as in transport, both passenger transport and delivery, and in cleaning as well as the liberalization of sectoral infrastructure (such as postal services, urban public transport, having also an impact on the emergence of a 'cleaning industry') including the opening up of these sectors to new business models based on outsourcing, subcontracting and franchising (Hermann & Flecker, 2012). These changes impacted on employment relations and labour standards in specific industries, as deregulation often entails re-regulation or protective measures for existing trades, and has tended to erode the broader inclusiveness of the national labour relations system or sectoral labour market institutions such as sectoral collective agreements (Appelbaum et al., 2010; Doellgast et al., 2018). Of course, besides economic politically induced reforms, technological transformations, such as those deployed by platforms, can lead to job creation, job destruction and job transformation and hence have an impact on the number and quality of available jobs, again with some sectors more affected by these developments than others (Eurofound, 2020). They also lead to intensified competition, in some cases increasing globalization, however the impact of such transformations is filtered through institutional structures, often at sectoral level, and these effects can be observed in the strategic decisions made by firms and in the quality of jobs held by workers (Appelbaum et al., 2010).

From the perspective of labour, we can anticipate that the four sectoral platforms, we focus on in the PLUS research, entered industries or started to operate in related markets, that have offered precarious working conditions already before platforms have appeared. What is



labelled as the 'fissured workplace' (Weil, 2014), is said to be taken to its extremes when platforms deploy labour: outsourcing, subcontracting, licensing or franchising is nothing new to optimize production processes and to shed employer responsibility away from the lead firm. The fissured workplace entails lower wages, greater occupational health and safety hazards, instable and unpredictable employment and less social protection. Sectoral platform companies tend to be in industries where contests over employment status have a legacy. These include delivery services, transportation and commercial and domestic cleaning. Moreover, much of the core work in these industries has changed little over the decades. We still clean floors with water, brooms and vacuum cleaners and deliver whatever shall be delivered by a vehicle with 2 to 4 wheels.

Weil (2014, 2019) explains the emergence of the fissured workplace as a general trend having its roots in the shift of companies' revenues from profits from the actual production of goods or provision of services to the most profitable aspects of firm value and in shedding employment and shifting costs to smaller entities and in creating and enforcing standards through technology. Nonetheless, the institutional context of a particular city, region or nation state and the sectoral context do play a role and it makes sense to extricate specific developments in employment and strategies of platforms both at sectoral level and cross-sectoral (national, regional, city) level.

Keune and Pedaci (2020) remark about their comparative research on precarious work and trade union strategies in three sectors (construction, industrial cleaning, temporary agency work) across seven European countries that *"specific sectors have a profile of precarious work that is remarkably similar across countries, originating from similar employer strategies and work organizations."* Hence, across countries, comparable sectoral developments and strategies can be observed, that relate to similar employment patterns, company strategies but also to the activation of unions power resources. Keune and Pedaci argue for comparative industrial relations to strengthen the sectoral dimension, as unions in the same sectors across countries face very similar challenges and develop very similar strategies to deal with challenges, such as the rise of precarious employment, and follow quite similar paths cross-nationally.

"These within-country sectoral differences and across-country sectoral similarities point to between-sector differences in work organization and job characteristics, following from differences in the levels of technology, international competition and skills, as well as from enterprise size, inter-enterprise relations, vertical and horizontal integration and the productive strategies of the employers." (Keune & Pedaci, 2020, p. 140)

Keune and Pedaci concentrated on the issue of precariousness that is also of importance in platform-mediated service work. Next to precariousness in terms of employment forms, income, stability of employment and working conditions, pay determination and skill formation arrangements, the organization of production and product market as well as trade regulations and collective agreement arrangements stand out to be rather comparable across cities than across sectors, as it is clear that platforms do not enter fallow land but are



confronted with more or less protective, detailed and enforced industry regulation. Moreover, the impact of technological development on working conditions and business strategies and the innovative type of service offered need also be grasped through a sectoral lens, as we observe spill-over effects from the platform to companies operating in the related industry.

For Crouch (2009) as well as Thelen (2012, p. 145) sector specifics and requirements are crucial for institutional or companies' adaptation or deviation from the established (national) governance system. The local or corporate level is developing its own governance mode or is reaching beyond the national context to access resources in the global system either through corporate power and exploiting its technological competitive advantages (e.g., access to venture capital, the development of app-based technology) or through local networking. Both trends can be observed with sectoral platforms active at city level. Companies therefore not only are rule takers from the national institutions, but also rule makers of the local or sectoral system: they act in two different environments. On the one hand the institutional context has an impact on their actions – if they want or not. All sectoral platforms investigated in the PLUS project are manoeuvring in or are forced to adhere to rules and regulations governing the industry. On the other hand, competitions in their sector are continuously questioning the usefulness of this institutional context opening up a search for alternatives (Crouch et al., 2009, p. 674): this is particularly the case with first evading and then finding substitutes for an employment relation for providing the service. Of course, as was impressively shown by (Altenried et al., 2021), app-based monitoring of the labour process, the monopolization of the means of production in terms of technology are similar features revealed in all four platforms.

Another important commonality across the sectoral platforms we explore in the PLUS project is their concentration in cities or tourist regions. Hence, not only the sectoral setting but also the spatial embeddedness of platforms' operations are key determinants of their economic assertiveness. Cities have a specific spatial and economic structure – open and supportive of new technologies, with higher-than-average economic growth, tourism, high population density and higher than average income inequality – that are ideal prerequisites for the establishment of sectoral platforms.

The national industrial regime determines if sectoral collective agreements apply to all employees active in a given sector (e.g., logistics, transportation, cleaning) or not. In the UK, sectoral collective agreements are not widespread, rather collective agreements are negotiated at company level while most working conditions are regulated by labour law. In Germany, not all collective agreements are generally binding such as in cleaning, including the establishment of a common minimum wage. Additionally, collective agreements might be applied differently in each German province, as is the case in passenger transport. France, Portugal, Italy and Spain have a stronger tradition in concluding sectoral collective



agreements, in Spain mostly at provincial level, while in Estonia sectoral collective agreements are rare.⁸

Where sectoral collective agreements exist, courts have ruled for some industries that these apply to platform workers. In 2019, the Dutch trade union FNV sued Deliveroo, arguing the platform falls within the scope of the collective bargaining agreement for professional goods transport by road. In Spain, the non-profit association Asoriders, supported by the trade union UGT, concluded a collective agreement with Deliveroo setting minimum rates of pay, daily/weekly rest periods, holiday and annual leave (CEPS et al., 2020, p. 118). One key question for platform workers is: are workers in an employment contract or self-employed? Few collective agreements encompass minimum labour standards for freelancers (notable exception the Hilfr collective agreement, negotiated on company level, though see 4.3.6.2). In 2018, in Italy the municipality of Bologna promoted a Charter of Fundamental Rights for Platform Work, which was signed by trade unions, delivery riders' autonomous representatives and some platforms operating in the city of Bologna. This forms a binding statement of principles on platform work that signatories must abide by (Tullini et al., 2021).

4.2.2 The sectoral platform – a firm and a means governing the fissured workplace

The four platforms we have focused on in the PLUS research (Uber, Deliveroo, Helping, Airbnb) are labelled *sectoral platforms* (Dijck et al., 2018), offering digitally mediated services operated for a specific industry. As *lean platforms* (Srnicsek, 2016, 2017), they keep the core but intangible assets (technology and data) in their hands while outsourcing the provision of the actual activity (transport, cleaning, etc.) to a dispersed labour force. And as *digital labour platforms* (Aloisi, 2020; Drahekoupil & Jepsen, 2017), they extract surplus from living labour and valorising non-human assets (Baronian, 2020). As a form of a post-industrial corporation, they maximize profits not (directly) through productive enterprise activities but through high valuation of assets based on the technological edge they have, through regulatory arbitrage and evasion based on tax avoidance (Fumagalli et al., 2021) and through the outsourcing of productive activities to subsidiary and formally independent entities, including the shedding of costly employer responsibility. By collaborating with dependent business partners for the actual provision of the service, lead businesses create highly competitive markets for services and downward pressure on prices. This means the subordinate businesses competing for that work face significant pressures on the wages and conditions they can offer their workforce, particularly in industries where there is an abundant supply of labour, where skill requirements are relatively low and where labour costs represent a significant part of overall costs (Weil, 2014, p. 15). Moreover, inequality between income from labour and income from capital rises, because “*the value [lead companies] created moves away from being shared with the workforce and toward investors. A business will pay considerably more for a person it pays*

⁸ According to the Eurofound representativeness studies in industrial cleaning (Eurofound, 2019), the HORECA sector (Eurofound, 2018), postal and courier activities (Eurofound, 2017), road transport and logistics (Eurofound, 2015)



directly—whether a janitor, security guard, or software coder—than to a person who is paid by a contractor to that business.” (Weil & Goldman, 2016, p. 27) All these industry characteristics can be found in the sectoral platforms of the PLUS project, and in the related industries as a whole. Weil (2014, p. 271) enumerates different *forms* of employment typical for the fissured workplace: temporary agency workers (touristic accommodation, cleaning), day laborers (cleaning, delivery services), independent contractors (cleaning, delivery services, passenger transport), direct-hire temporary workers (e.g. seasonal workers in touristic accommodation), self-employed workers and specific relationships between business entities such as subcontracting and franchising.

For Weil and Goldman, “digitally enabled branded platforms”, i.e., sectoral or lean or digital labour platforms promote the provision of a service that must adhere to certain qualities, has characteristics and benefits and is subject to pre-specified standard references, such as minimum or maximums prices, timing, not least the type of service and the place of provision. The individual decision making of the provider (that is the company or independent contractor or self-employed responsible for carrying out the service) about how, when and where to perform the service and how much he or she can earn from it are absolutely limited by the terms set by the platform and the provider is also cut off from key information and key processing, as the platform monopolises (such as payment mode, list of customers, etc.) this information. The glue that holds together the lead company and the supplier, in both platform and not-platform mediated services, is not the holding of formal property rights over the suppliers’ assets but is an ‘organizational glue’: the lead firm can exert control through the imposition of a specific technology (e.g., software algorithms), stringent and detailed terms of how and to what price to provide the service and it is the bottle neck to access the customer market. Of course, counter-strategies such as multi-homing (the service provider or worker is using multiple apps to have access to an extended customer base) and disintermediation (the service provider or worker establishes direct contact to the customer and omits the intermediation of the platform) emerge that undermine the vast control of platforms over their service providers.

Sectoral platforms companies do not frame themselves as the producer of a service, they are mere ‘enablers’. They gain from the productive activities performed by independent contractors through a rent from every transaction the platforms facilitate. Interestingly, realizing profits through productive activities appears to be insufficient, as such platforms, *“are still unprofitable and survive only on the back of venture capital welfare (...) and by leaping ahead of regulations and workers”* (Srnicek, 2017). Some platforms operators, notably Helpling⁹ – according to their own assessment - managed to become profitable recently. For Deliveroo and other food delivery apps, despite the boom in home delivery of meals, the way

⁹ <https://www.handelsblatt.com/unternehmen/mittelstand/familienunternehmer/putz-vermittler-pro-sieben-sat-1-steigt-bei-helpling-ein/25165640.html?ticket=ST-6135418-YGVXOwQUU9gapPf5e30p-ap6>



to operative success still is bumpy¹⁰. Authors like Srnicek or Zhu and Iansiti (2019) predict that Uber's, Deliveroo's or Helpling's business model is far from sustainable in the long run, due to regulations they increasingly have to adhere to once they are classified as "sectoral" players and not mere digital service providers and because they suffer from multi-homing, the risk of disintermediation and rely on networks that are too local and restricted. Multi-homing undermines the monopoly position they can gain through network effects (the tendency to reach and grasp all potential customers under one platform roof) when service providers use multiple apps, as is the case with Uber and Deliveroo. Disintermediation jeopardises the platforms' position as being the bottleneck for intermediation. When service providers or self-employed platform workers have established contact with potential customers, that will use the service offered more than once (e.g., in cleaning), the platform is not needed anymore. The platform has served the objective of intermediation – why pay them a second or third time? Moreover, equity markets often misjudge the profitability of novel businesses and too high valuations of platforms will burst at some time and dry out fresh capital. In Srnicek's words: *"Most of these firms will go bankrupt, or turn into luxury services for the rich, or transform themselves into a different type of business model altogether"* (Srnicek, 2017, p. 257).

Scholars (Aloisi, 2020; Baronian, 2020) have argued that such platforms display a governance structure that is situated between hierarchies and markets. Platforms mix these two governance structures (hierarchy and market), the hierarchical imposition of rules in a traditional firm (setting goals, surveilling work, providing feedback and imposing sanctions on reluctant workers) with the price-based allocation mechanism of markets (dynamic pricing, outsourcing of the actual service). However, platforms still need to be grasped as *firms* from an organisational and legal point of view as there is *"no significant difference between the nature of the firm and the nature of the platform"* (Aloisi, 2020, p. 26). According to (Aloisi, 2020, p. 26), *"platforms should be understood as non-standard firms that style themselves as networks of market-based contracts, yet use both technological means and pure market power to dictate work rules in great detail, and to organise, control and discipline workers through distributed mechanisms"*. This means – and important court rulings establish this fact – that some of these sectoral, lean or digital labour platforms impose managerial power, possess the distinct and core means of production (the technology and data), have means to interfere in labour processes and are the masterminds of the service provision to a degree that they cannot be labelled as "connectors" or digital service intermediaries anymore (Todolí-Signes, 2020). They need to take on the responsibility of employers.

Sectoral platforms exacerbate the organization of the fissured workplace. According to Weil and Goldman (2016, p. 27), *"many business models in the on-demand sector represent a deepening fissuring of the workplace, as technology and software algorithms enable companies to further outsource significant proportions of the work"*. They can and want to

¹⁰ <https://www.theguardian.com/commentisfree/2021/mar/31/covid-boon-deliveroo-still-hasnt-turned-a-profit>



shed responsibility for employment, i.e., for the costs and duties related to an employment relationship, without losing control over the labour process, the core means of production and the surplus extraction. This is because sectoral platforms have solved one of the main problems to replace the hierarchical organization of production within a firm with market relations: the potentially high transaction costs stemming from information asymmetry between buyer and seller, the problem of codification and standardization of production processes especially in complex transactions, and the insecurity about the suppliers' capability (Gereffi et al., 2005). Digitalisation mitigated this problem: it has become easier to standardize, closely monitor and control production processes and to sanction suppliers. At the same time, from a worker's perspective the platform organizing the provision of services, has pulled the worker closer to operate for its profit through an algorithm-based technology that monopolizes the governance of the customer-worker/supplier-digital service provider relation, while shifting operational costs to the workers or to customers.

Hence, in both modes of production (with and without platforms), fissuring is at stake and leads to low wages, limited benefits and job insecurity and it also creates externalities: costs for accidents at work and for insurance are borne by the supplier, both surging, as will be shown with the Uber case study. Social and income support subsidies become essential for workers, as they cannot make a living from such fissured employment. The PLUS quantitative survey (chapter 3.2.2) showed that many of the platform workers need to top up their income from platform activities with other income or the other way round: they are topping up income from other activities with income from platform labour, as already established by the qualitative research of the PLUS project (Altenried et al., 2021).



4.3 Helping and the cleaning sector

While on-demand transport services have gained most attention in politics and academics, the exploration of household-related services mediated via platforms was hardly on the radar of scholars although its potential for growth is regarded as high against the background that the demand for household-related services in general is on the rise¹¹.

A recent report by ILO (2021, p.48) revealed that globally, the number of digital labour platforms in the sector has risen eightfold in the past decade, from 28 platforms in 2010 to 224 platforms in 2020. Most investment or funding (74%) to these companies was allotted to ten platform companies located in the United States (8) and Europe (2). One big player is Germany-based Helping, active in 10 countries and over 200 cities.

The PLUS quantitative research showed that compared to the use of platform-mediated transport and delivery services such as Uber and Deliveroo, the use of Helping and similar platforms is on a markedly lower level across all PLUS-cities, and the use of domestic services through other than platform-mediated channels is much more widespread, ranging from 24% of respondents in Tallinn to 57% in London than turning to Helping or similar platforms for domestic services, ranging from 4% in Tallinn to 19% in Berlin (see Figure 5. Use of domestic services through regular channels compared to Helping and similar platforms by city.). The highest values can be recorded for Berlin what is not surprising, as Germany-based Helping – the leading online platform for on-demand home services in Europe – was founded in Germany.

The following chapter gives an overview over the quantitative dimension of cleaning in the PLUS countries, and where available in the PLUS cities. Moreover, recent developments in employment and the overall market structure and company strategies in cleaning are explained, and how they interfere or do not interfere with the activities of platform companies offering cleaning services. Finally, we outline most important sectoral regulations or regulations that impact highly on the cleaning sector, such as the ILO convention C-189, sectoral collective agreements and the subsidisation of household cleaning.

The data-descriptive section 4.3.1 takes on an industry-based approach ((International Labour Organization, 2021), in contrast to an occupation or task-based approach) to get an idea about the dimension of employment and active companies in the cleaning sector. Hence, we refer to employment data both from the sectors “activities of households” and “cleaning activities”, including facility services, as it is not possible to disentangle cleaning from other related activities, e.g. care, cooking, provided for households and other facility services provided for businesses in the statistics available.

¹¹ Huws et al. pointed out (Huws et al., 2019, p. 13) that the number of people engaged in household services (maintenance, cleaning), is at least equal or exceeds that of on-demand riders and drivers in many European countries.



In the sections that follow, we will concentrate on the analysis of *cleaning work provided for households* by platform workers, workers employed by companies, including temporary agencies, the self-employed and household employees. Data for section 4.3.1 was gathered from Eurostat labour force survey and structural business survey, municipal statistics, and complemented by desk-top research. The analytical sections are mainly based on the PLUS city reports and the city industry reports from Berlin, Bologna and London, the three cities where working conditions of *Helping's* workers were explored (Altenried et al., 2021), as well as on two interviews with sectoral social partners at EU level (EFSI - European Federation for Services to Individuals; EFFAT – European Federation of Food, Agriculture and Tourism Trade Unions); and an extensive review of reports and studies exploring future trends of the cleaning – both industrial and domestic cleaning. The city reports are based on expert interviews conducted between April and July 2019 in each city (see interview guideline and list of experts in the Annex, 7.1), the city industry reports on cleaning are based on focus group discussions (Berlin, Bologna) and interviews with industry experts (London) where focus group discussion were not possible due to the research conditions during the Covid-19 pandemic (see interview guideline and list of experts in Annex, 7.2).

4.3.1 Sectoral description and data

The cleaning industry can be divided into two main subsectors, industrial cleaning and domestic cleaning in private households. Looking at the NACE categorisation, employment and other economic indicators of cleaning activities performed by workers employed in enterprises are subsumed under “cleaning activities” (N.81.2) and subcategories. These cleaning activities include services for enterprises and private households. Moreover, private households can also act as direct employers, then these activities are denoted as “activities of households as employees of domestic personnel” (T.97) (see Table 9). As we can see in the definition of the NACE categories, it is difficult to extrapolate a “cleaning industry”, as on the one hand clients differ and employers differ, including in both groups private households and companies. In other industries, private households are just clients, in cleaning they can also function as formal employers. On the other hand, the type of tasks performed, comprise different activities and blur into different directions. In industry cleaning, often maintenance and facility services are bundled together with cleaning services; in domestic activities, not only cleaning work but also care work (cooking, childcare, elderly care), is subsumed.¹² Especially in 24-hours live-in elderly care – a kind of service provision that is gaining importance – the whole repertoire of provisioning, cleaning, cooking, physical, emotional and mental caring and shopping are offered one in all (Bauer et al., 2014; European Parliament, 2016; Haidinger, 2016; Sardadvar et al., 2015). Hence, when analysing the importance and

¹² According to the representative body for federations and companies that are involved in the development of personal services in Europe EFSI (European Federation for Services of Individuals, 2018, p. 11), “the personal and household services sector (PHS) brings together activities carried out mainly in users’ home relating to personal assistance services (early childhood, child care, dependence, disability, invalidity, etc.) summarized under the term “care-related services” and to services of daily living (cleaning, ironing, gardening, small DIY, maintenance, remedial classes, etc.) united under the term “household support””.



impact of platform work on cleaning, both categories, industry cleaning and domestic cleaning, should be considered. Platforms such as Helping are highly capitalised corporations that are rather comparable with other corporations providing facility and cleaning services as employers than with private households as employers. At the same time, up until now, platforms have interfered mostly with cleaning activities in private households, but only rarely with cleaning services for companies. If an expansion of platform companies such as Helping into industry cleaning will take place, is highly uncertain. Up until now Helping offers office cleaning only in the UK.

NACE Code	Description of activities	
N.81	Services to buildings and landscape activities (N.81.1 Combined facilities support activities, N.81.2 Cleaning activities, N.81.3 Landscape service activities)	
N.81.2	Cleaning activities	
N.81.21	General cleaning of buildings	81.21.10 General cleaning services of buildings This subcategory includes: <ul style="list-style-type: none"> - services consisting of cleaning and maintaining dwellings or commercial, administrative and industrial buildings: - floor cleaning and waxing - interior wall cleaning - furniture polishing - other janitorial maintenance services, including minor repairs
T.97	Activities of households as employers of domestic personnel	97.00.10 Services of households as employers of domestic personnel This subcategory includes: <ul style="list-style-type: none"> - services provided by private households in their capacity of employing household personnel, such as maids, cooks, nannies and governesses This subcategory excludes: <ul style="list-style-type: none"> - services of independent units (including individuals) providing services to households

Table 9. NACE Categorisation for cleaning activities

Before turning to numbers of the two sub-industries collected via Eurostat, we want to present findings from studies that applied elaborated statistical approaches to estimate the number of persons providing personal and household services for private households. These numbers of course differ from those derived from NACE categorisation T.97 (Activities of households as employers of domestic personnel), as the latter ONLY captures personnel DIRECTLY employed by the household. According to findings from EFSI (European Federation for Services of Individuals, 2018, p. 13), activities in “Personal and Household Services”, encompassing formal employment by companies, solo-entrepreneurs, temporary agencies, private households and platforms and encompassing cleaning *and* care work for *private households*, are estimated to be carried out by around 8 million people in the EU, with a



prospective to create another 5.5 million new jobs (Ramos Martin & Belen Munoz Ruiz, 2020, p. 5). In addition to the 8 million workers working declared in private households, undeclared work is a major issue. Numbers are due to its nature hardly available (European Parliament, 2016; International Labour Office, 2013). A Special Eurobarometer survey about undeclared work in the European Union from 2019 found that the sector most frequently mentioned by those who have carried out undeclared work is personal and household services: around a quarter of those surveyed said that they had supplied undeclared personal services, including childcare, elderly care and cleaning (European Commission, 2020, p. 15). A recent ILO study estimated domestic work worldwide deploying a sophisticated statistical approximation approach. According to this study, informal employment among domestic workers (i.e. only workers directly employed by the private household) in Northern, Southern and Western Europe amounted to 1.519 million (1.367 million women) in 2019, the share of domestic workers in informal employment was at 64.4% in this region (International Labour Organization, 2021, p. 277). This means that the Eurostat data presented below must be regarded as an absolute bottom-line reference.

Undeclared work is one of the key problems in domestic work, and concerns to formalise employment high on the agenda of social partners and state authorities. According to the EFSI representative (EU-EX-3), in countries with no official or public support or tax incentives for the sector, undeclared work accounts for the majority of employment. In countries with more subsidising possibilities undeclared work can be reduced. In section 4.3.6.3, we will present state programmes to subsidise and consequently formalise the provision of personal and household services. How platforms impact on undeclared work, is highly contested: for some, platforms are the solution to undeclared work, for others they are a door opener to more undeclared work. Fudge and Hobden (2018, p. 5) also refer to the potential positive effects for formalisation when domestic workers use cooperatives such as ‘coopify’, an application and online platform that lets the users select the service they need through worker cooperatives, enhancing members’ competitive advantage.

To describe the trends in *cleaning activities performed in private households and in industrial cleaning*, we use harmonised Eurostat data as well as data gathered by the PLUS cities. Where possible, data is disaggregated to NUTS-3 regions to display regional trends.¹³

4.3.1.1 Activities of households as employers of domestic personnel

Using data from the Labour Force Survey aggregated at national level, we see in all PLUS countries (Germany, Spain, France, Portugal and the UK) except Italy a downward trend in the employment of domestic personnel by private households. It is especially steep in France and the UK (see Figure 25). A reason for the decline – while overall demand for household related services increased - could be that employment by the household lost importance in favour of employment of household personnel through agencies or social service providers. Another

¹³ For Estonia only very limited data for the two NACE categories is available. Therefore, we did not consider Estonia in this analysis.



reason could be that data gathered is simply incomplete, as will be shown for Germany below. Moreover, a clear downward trend during the Covid-19 pandemic in all countries can be observed. The percentage of females in “activities of households as employers of domestic personnel” is between 73,90% for the UK (2019), and 99,27% for Portugal, hence a clearly female dominated profession.¹⁴

While Eurostat data indicates a downward trend, according to register data of the German “mini-job centre”, the number of mini-jobs (that is jobs with an earning below EUR 450 or for a limited period) in private households has surged continuously and enormously: In December 2004, 103.000 mini-jobs were held in private households, in March 2021, the number was 324.000.¹⁵ This is 200.000 more than Eurostat displays for “Activities of households as employers of domestic personnel” in 2020. Hence, harmonised EUROSTAT data seems to underestimate official employment in private households. We should consider data gathered through EUROSTAT as a bottom line of employment in private households. This also corresponds more to industry experts’ assessment who point out that the demand for household services, including care services though, is steadily increasing (European Federation for Services of Individuals, 2018).

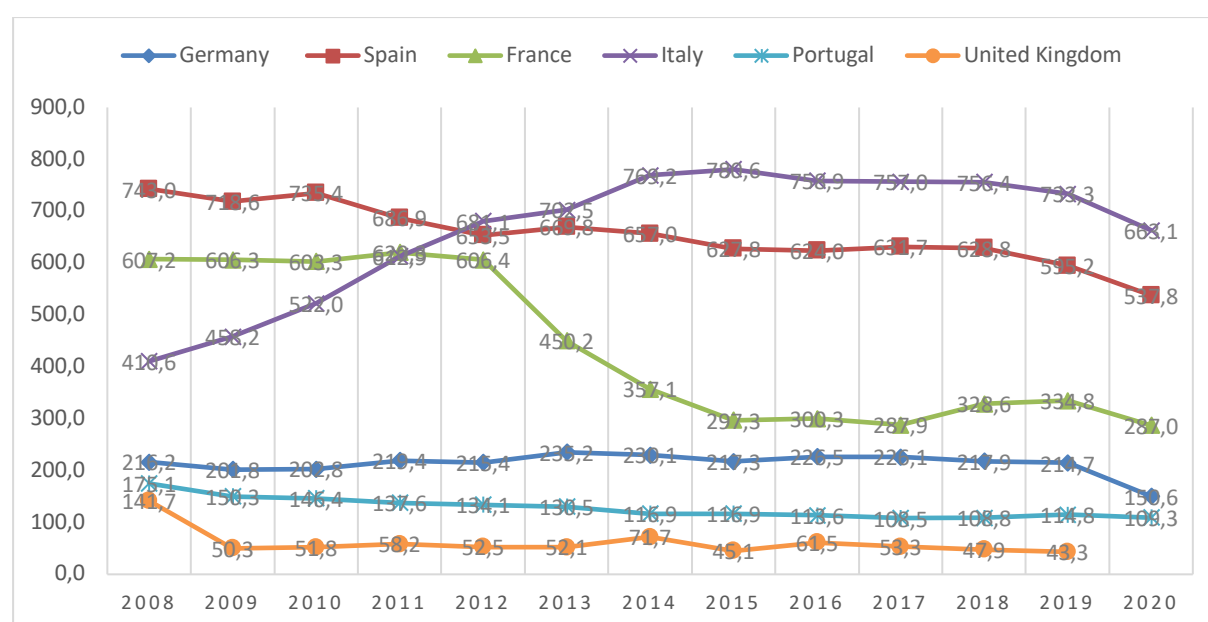


Figure 25. Employment (over 15 years) in "Activities of households as employers of domestic personnel" (T.97), 2008-2020, in 1,000, in selected countries (Source: Eurostat [Ifsa_egan22d])

¹⁴ 2019: Portugal (99.27%), Germany (92.10%); France (88.85%), Italy (87,62%), Spain (87.52%); UK (73.90%)

¹⁵ https://www.minijob-zentrale.de/DE/02_fuer_journalisten/02_berichte_trendreporte/quartalsberichte_archiv/2021/1_2021.pdf?blob=publicationFile&v=2



Comparing the prevalence of household personnel in total employment (Figure 26), the Southern European countries stand out: Italy, Spain, Portugal have the highest shares of domestic personnel in total employment, while the share of household personnel of total employment is lower in the UK and Germany.

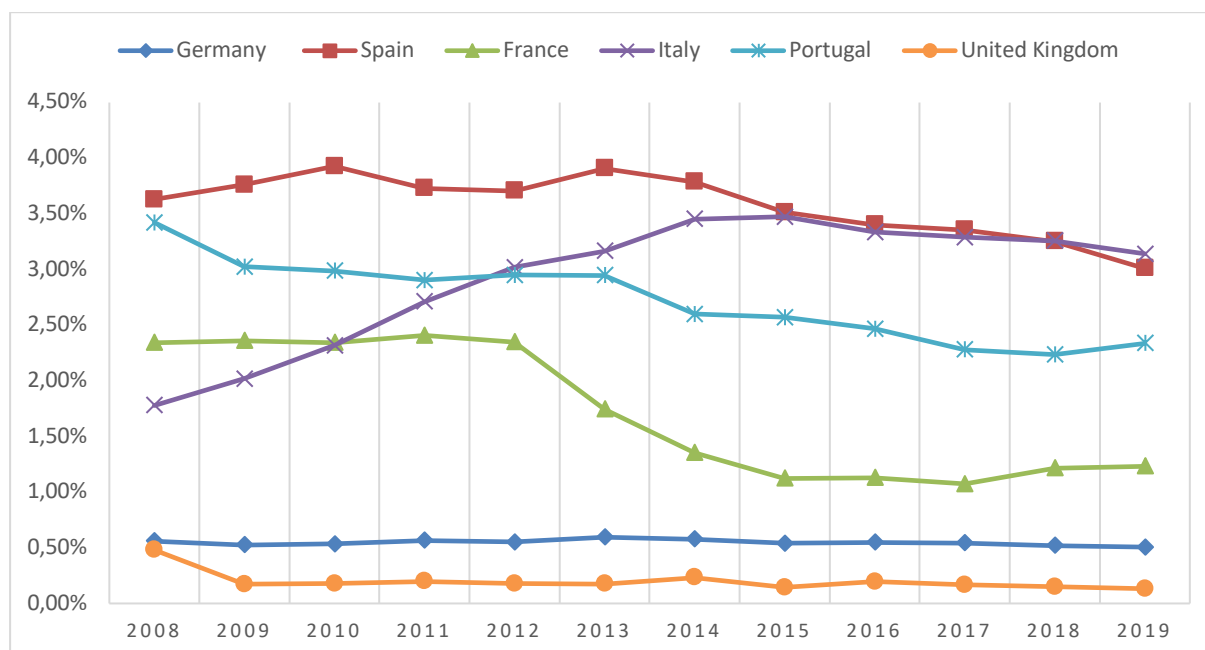


Figure 26. Employment (over 15 years) in "Activities of households as employers of domestic personnel" (T.97) in total employment, 2008-2019, in %, in selected countries (Source: Eurostat [lfsa_egan22d])

In Figure 27, data for cities where regional data was available show a different trend than displayed in national data. While the share of domestic personnel in France is declining, in Paris domestic personnel increased slightly between 2009 and 2017. For London, the volatility of domestic personnel according to EUROSTAT data is quite high between 2013 and 2017, ranging from 9.531 (2015) to 29.288 (2014). The reason for this high volatility is unknown; it might also be due to a break in the series of data collection. Berlin has a slightly increasing trend, while Germany is rather stable, however with a sharp decline between 2019 and 2020. Another interesting aspect is the clear prevalence of household personnel in cities compared to the respective country. Data is available for 2017: In Berlin, we find 4,42% of the economically active German population, while the Berlin household personnel accounts for 11,73% of the economically active population in Germany. Similar trends can be found for UK-London (16,62% versus 24,48%) and France-Paris (7,17% versus 16,35%). This means household personnel is concentrated in cities.



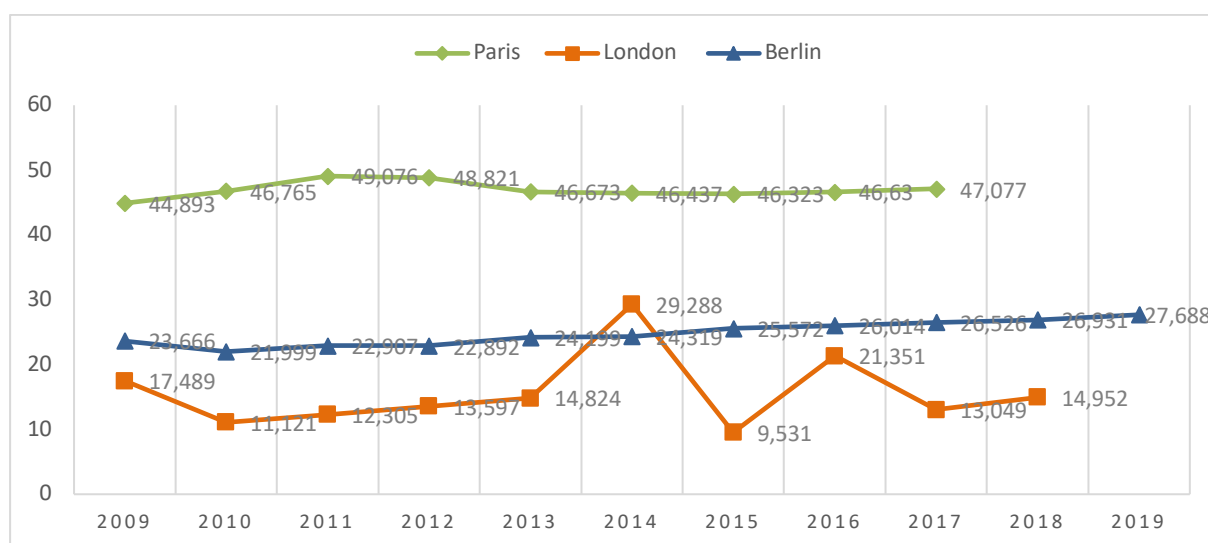


Figure 27. Employment in "Activities of households as employers of domestic personnel" (T.97), in 1,000 in selected cities (Source: City data based on LFS)

Taking London as an example, we see a clear decrease of employed domestic personnel compared to self-employed (Figure 28). In 2009, the number of employed personnel in private households was double the number of self-employed (5,757 self-employed, 11,732 employed persons). In 2018, the number of self-employed exceeded the number of employed domestic personnel (8,620 self-employed, 6,332 employed).

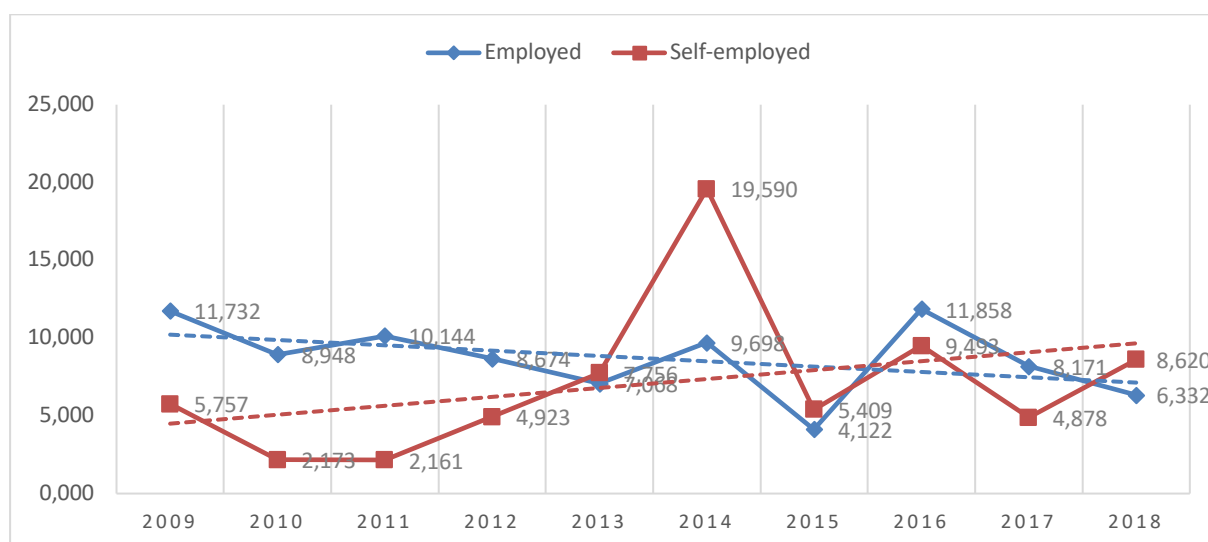


Figure 28. Employed and Self-employed in "Activities of households as employers of domestic personnel" (T.97), London, 2009-2018 (Source: City data based on LFS)



4.3.1.2 Cleaning activities

Next, we describe how employment in the category cleaning activities has developed in the last decade. The main difference to household personnel is that employers are enterprises and not private households. Mostly, cleaning activities are performed for enterprises and not for private households, whereas some cleaning companies also offer household-related services. In terms of gender distribution, between 47,9% (France) and 64,7% (Portugal) of employed persons are female.¹⁶ The percentage of women is lower than in household activities and has diminished in the last decade. Taking a look at the development of employment in the last decade, an upward trend is visible, with Germany and UK standing out in particular. Again, for the Covid-19 period, a steep decline in employment took place in Germany.

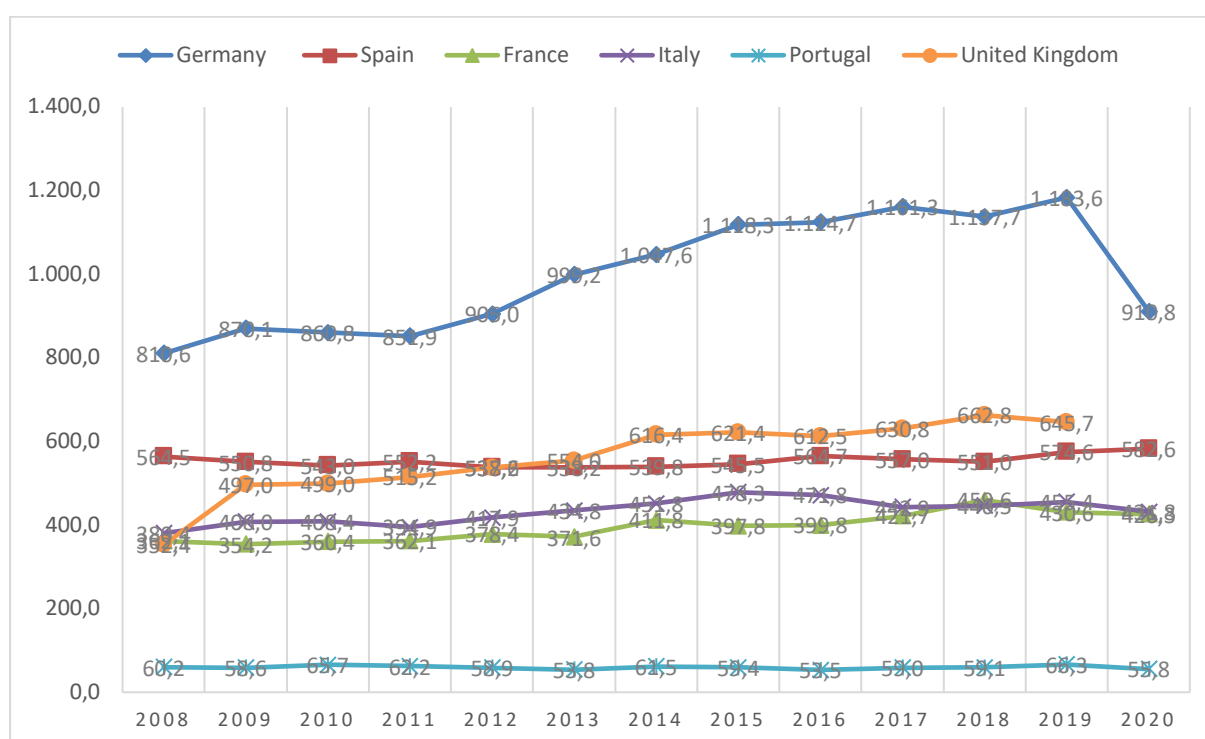


Figure 29. Employment in "Services to buildings and landscape activities"¹⁷ (N.81), 2008-2020, in 1,000 (Source: Eurostat, [lfsa_egan22d])

City data is available for Berlin, Bologna and London. In all three cities, we observe an upward trend. Interestingly, the employment in general cleaning of buildings is in Berlin less

¹⁶ Germany (51,9%), Spain (62,8%), France (47,9%), Italy (56,3%), Portugal (64,7%), UK (51,7%)

¹⁷ Including N.81.1 Combined facilities support activities, **N.81.2 Cleaning activities**, N.81.3 Landscape service activities



pronounced than in Germany. London displays – as in domestic services – a volatile development, but still with an upward trend.

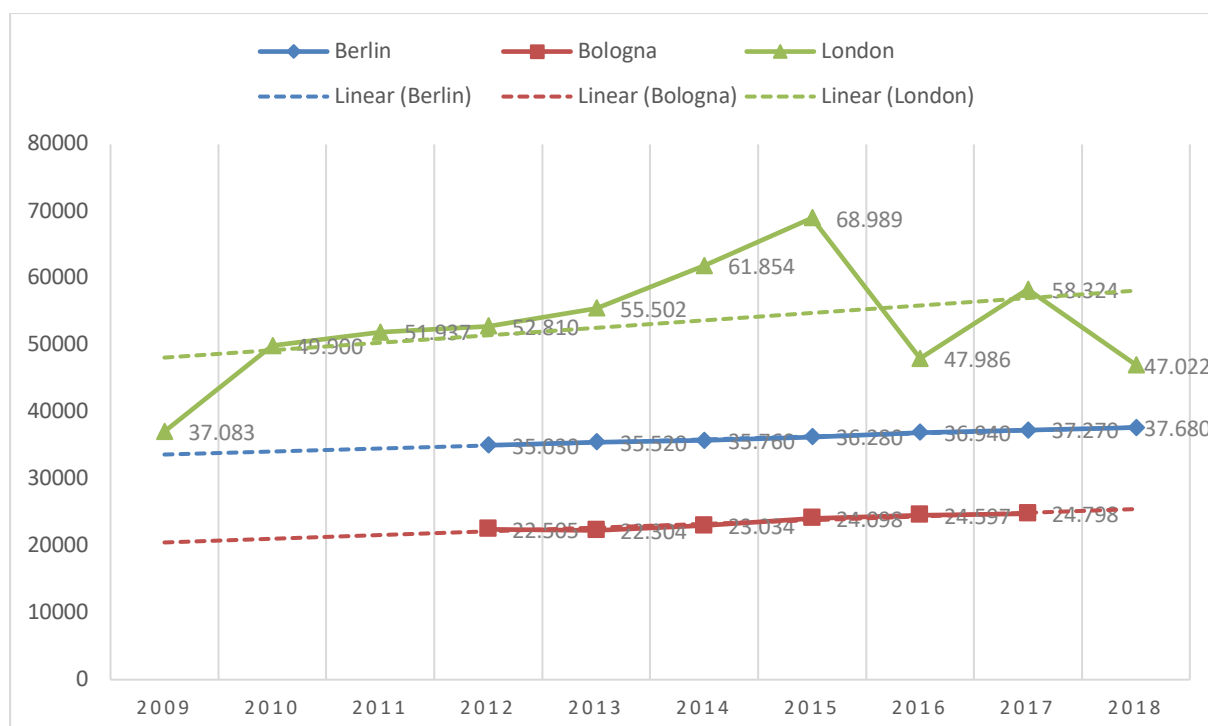


Figure 30. Employment in General Cleaning of buildings (N.81.2) in selected cities (Source: City data based on LFS)

Another interesting aspect is how the payment for agency workers in the industry “General Cleaning of buildings” has developed. We selected those countries where a steep upward trend, with numbers in Italy almost quadrupling, in Germany almost tripling, and doubling in the UK. This corresponds to findings from expert interviews and focus group discussions in Germany and in the UK, indicating an outsourcing trend and fragmented character of employment in the cleaning industry (see section 4.3.2). No numbers at city level are available.

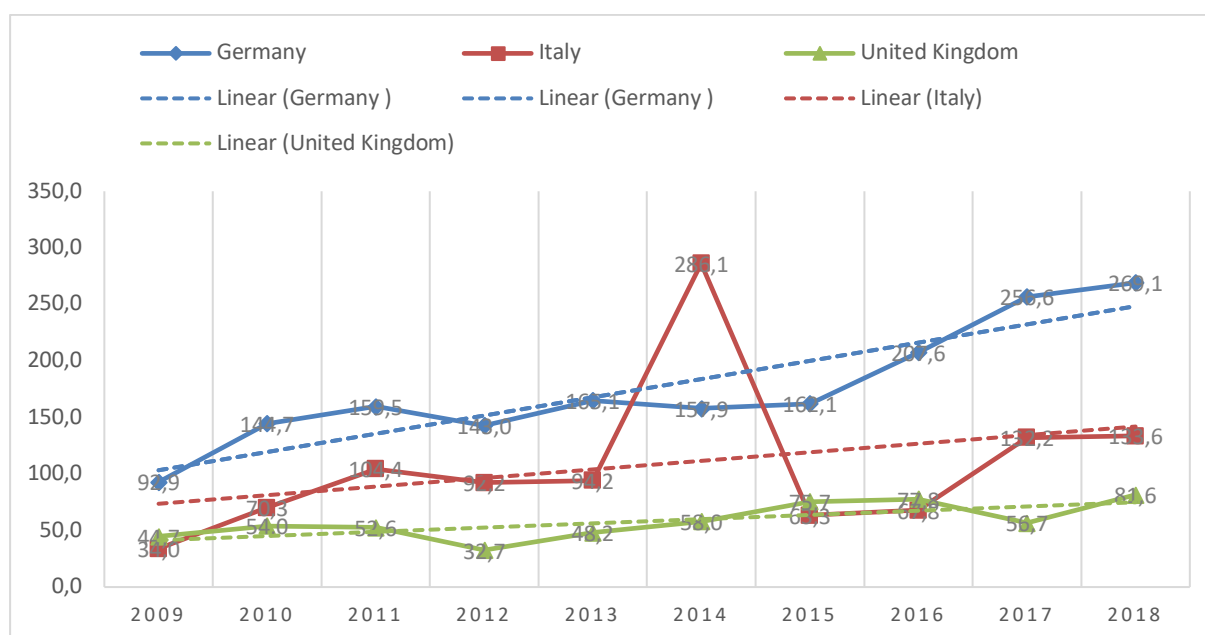


Figure 31. Payments for agency workers in General Cleaning of buildings - million EUR (Source: Eurostat [sbs_na_1a_se_r2])

Comparing employment in domestic and household work and cleaning services, significant differences are visible across countries, with the Southern European countries (Spain, Italy and Portugal) showing more employment in domestic services for private households in absolute terms (Figure 32) and percentage-wise of total employment (Figure 33) than the UK and especially Germany. Moreover, employment in services for buildings (including cleaning services) have experienced a staggering increase in Germany and the UK.

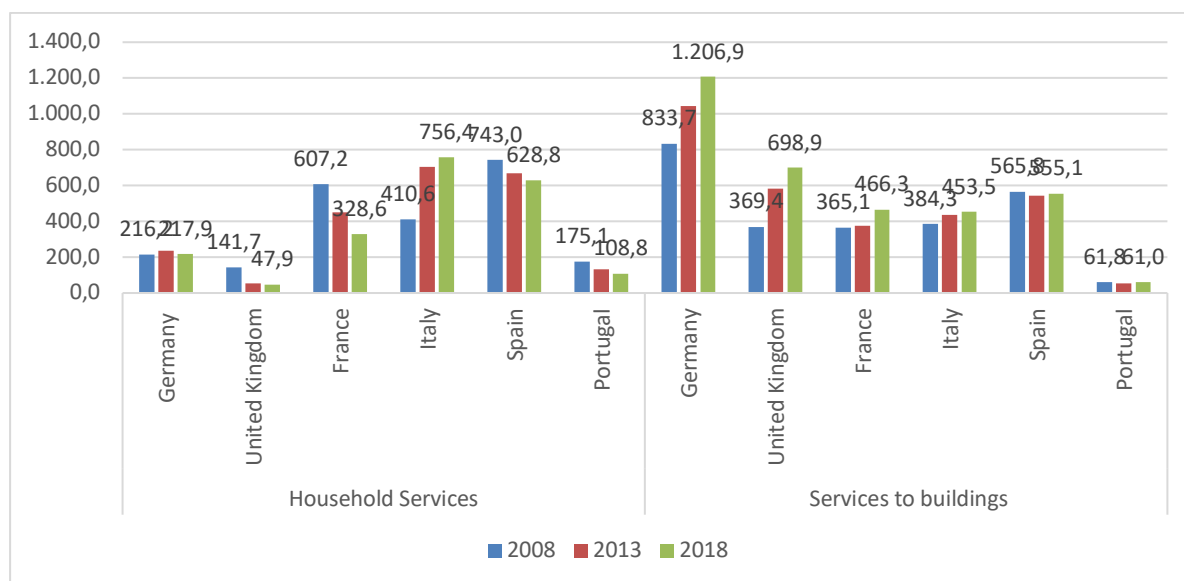


Figure 32. Employment in Activities of households as employers of domestic personnel and Services to buildings and landscape activities, 2008, 2013, 2018, selected countries, in 1,000 (Source: Eurostat, [lfsa_egan22d])

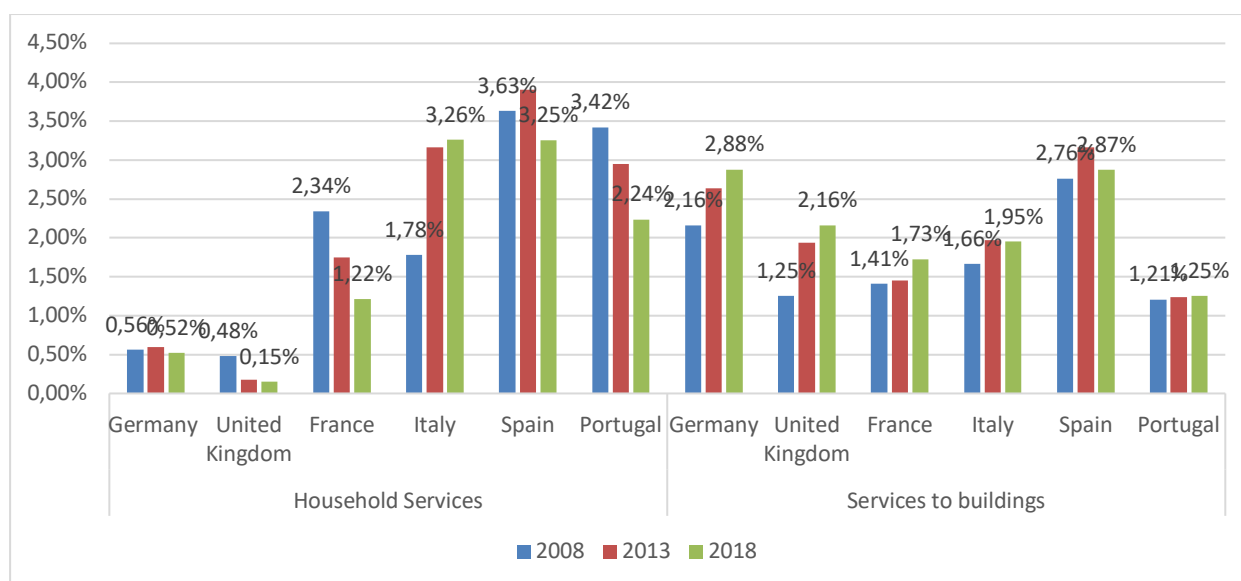


Figure 33. Employment in Activities of households as employers of domestic personnel and Services to buildings and landscape activities, 2008, 2013, 2018, selected countries, % in total employment (Source: Eurostat, [lfsa_egan22d])

4.3.2 Market structure and employment relations in cleaning work: fragmentation and outsourcing

Detailed data stemming from the focus group discussions and individual interviews as well as from desktop research about the market structure and employment relations as well as working conditions in cleaning work are available for Germany and the UK. In both countries the cleaning market is characterised by high fragmentation. While in *Germany* the largest part of formalised cleaning work takes place in the B2B sector, with cleaning personnel in companies and the municipal or state institutions (schools, municipal buildings, administration offices), the market for paid domestic cleaning, where Helpling is mostly active, appears to be dominated by undeclared work and solo-entrepreneurship. Cleaning companies with a turnover below EUR 500.000 represent 80% of the companies, but they only contribute to 15% of the industry's turnover (ArbeitGestalten, 2017a). Most turnover by far is made by five big companies who have up to 40,000 employees. So, the formal market of industrial cleaning with corporate clients is dominated by large companies, the formal market for private household customers appears smaller and facilitated by local companies or companies with a franchise system. In Berlin, the growth of tourism and business travel since around 2010 has led to a growing demand of jobs in the cleaning sector. Furthermore, as is clearly visible in the Eurostat numbers presented in section 4.3.1.2, temporary work through agencies is an ongoing trend since the early 2000s. Platform companies such as Helpling can be seen as the most recent and most radical form of this outsourcing trend, although this trend has not yet affected the B2B market. The outsourcing of cleaning activities was a clear policy-driven development, as the standards of the industry have been deregulated in the last 20 years due to efforts by the federal government to increase competitiveness and lower prices. A German union representative describes this trend:

„Large companies have set up temporary employment agencies all over the country and outsourced their building cleaners to them. It must also be said that this has happened with the good help of public employment agencies and politics. [In my union], in early 2000, we had almost 300 women who lost EUR 4 per hour right away because they were forced into temporary work. They had no chance to escape because the company said: "well, then we'll give you notice, and you'll go to the employment agency and the employment agency will place you in our temporary employment agency and you'll be right back again." (BE-FG-3).

For platforms such as Helpling, cleaners must be registered as self-employed they are not employed as is common in industrial cleaning.

According to the EFSI (European Federation for Services to Individuals, EU-EX-3) representative, overall, there is a growing demand for cleaning services and too few services offered. The industry suffers from a “recruitment problem”, because the sector is not attractive and has a negative image due to its precarious working conditions. Thus, there is a need to find new workers, on the one hand, and to make jobs more attractive on the other hand. Through platforms, more workers can be recruited, longer hours can be worked, and the demand of customers is better met. According to a participant of the Berlin focus group



discussion (BE-FG-4), access to cleaning services in private households – both for workers and customers – has become much easier than it was before, as it is an easy way to enter the market and offer cleaning services through platforms.

In London and the UK, a similar fragmentation of the cleaning and domestic work sector is discernable: temporary agencies, cleaning companies and domestic workers directly recruited by private households are all active in the sector. First, cleaning agencies recruit workers to do either sub-contracted cleaning or domestic work for private households. Moreover, companies outsource cleaning to agencies that provide cleaners, while private households usually make private agreements with domestic workers, whom they find through word of mouth. Platforms like Helpling are similar to agencies that bring together cleaners and domestic workers with private clients online. Second, there are also some cleaners who are employed by companies or institutions directly and provide household services. Third, some domestic workers are employed as live-ins in clients households, i.e. they are working and living in the employer household. Such type of domestic work (live-in) has not been affected by platformisation in the UK, as recruitment for live-ins is done abroad through agencies or intermediaries and is bound to one particular employer. In case live-ins have escaped from abusive labour relations, they find it difficult to use platforms because they require legal documents, language and IT skills to join, as an interviewee in London (Kalayaan) explained. Moreover, domestic workers also develop independent labour relations with private households through informal agreements without the mediation of agencies. Workers often combine these three types of labour, and the limits between formal and informal work are difficult to discern.

In the UK, no sectoral collective agreements are in place, and there are no guarantees to a minimum wage. Although some cleaners, such as those working for large companies and the public sector do have an employee status, relative stability, labour rights and improved working conditions, their numbers have diminished during the last decades with privatisations and the spread of sub-contracting in public and private entities. As for London, Figure 34 shows an upward trend in the number of self-employed in the cleaning of buildings, while the number of employed persons doubled between 2009 and 2015, and halved again between 2015 and 2018.



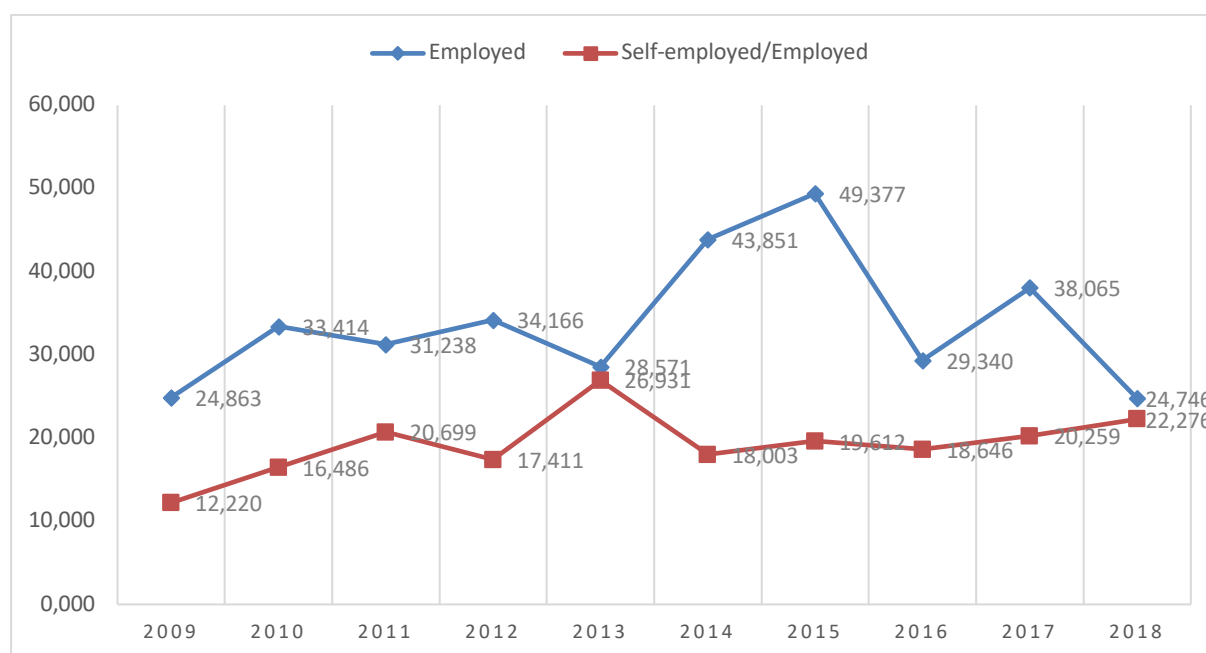


Figure 34. Employed and Self-employed in "General cleaning of buildings" (TN.81.21), London, 2009-2018 (Source: City data based on LFS)

Overall, the working patterns of domestic workers and cleaners are fragmented and temporary, working short shifts and moving from employment or agency based work to informal domestic work, which is a valuable source of income supplementing the domestic workers' main jobs and covering expenses in periods of uncertainty. Subcontracting is a major determinant of labour rights violations and abuses in the sector, and outsourcing makes liability for labour rights violations and gender-based violence difficult to pin down.

4.3.3 Working Conditions

The literature on working conditions of domestic workers in private households is vast and long-standing (Anderson, 2000; Dunaway, 2014; Ehrenreich & Hochschild, 2003; European Parliament, 2016; Huws, 2018; Lutz, 2008). Exploring working conditions and employment trends in industrial cleaning has recently drawn scholarly attention (Sardadvar, 2019; Sardadvar et al., 2015). Working in private households as a domestician is a phenomenon that has (again) gained importance from the mid 1990ies to today, not least due to the ageing population in need of care, the increasing employment rates of women and the retreat of the welfare state and the privatisation of care services. On the supply side, migrant women make up the majority of domestic workers, and of cleaning personnel. The cleaning sector attracts a lot of migrants, including undocumented migrants. They find it easier to work here than in other sectors, including other types of platform work, in which formal qualifications, papers and investment are required.

Most recent studies from London (De la Silva et al., 2019; Focus on Labour Exploitation, 2021), confirm difficult working conditions in private homes, including pay issues, lack of health and



safety provisions, long working hours and social isolation: “61% of research participants experienced issues with pay, such as not being paid for all hours worked (31%), not being paid at all (15%), not being paid on time (14%), not being paid holiday pay (12%), being paid a lower rate than initially promised (10%) and being paid less than the minimum wage (6%)” (Focus on Labour Exploitation, 2021, p. 5). Live-in domestic workers are particularly affected by exploitative working conditions, including human trafficking. The detection of such working conditions and the escape of victims from captivity and exploitation is very difficult, as labour inspections are not permitted to inspect private homes. Moreover, those who manage to escape exploitative and abusive labour conditions are often deprived of the right to work or are even expelled before the court case ends.

In general, according to (Ramos Martin & Belen Munoz Ruiz, 2020), visits by inspectors in a private household are extremely rare. It is considered to be incompatible to the fundamental rights to personal and family privacy of the household. Moreover, the EU and national regulation on occupational health and safety and other working conditions have excluded domestic workers from applicable legislation due to the difficulties to apply the duty of prevention and the specific obligations (risk assessment, providing personal protective equipment, professional training, medical test, etc) to households (Scheiwe, 2021). Health and safety standards in the domestic work sector are established in the ILO convention 189, dating from 2011. So far, only seven EU Member States have ratified the Convention. According to findings from the EU project PHS Quality, “the difficulties of the households to comply with health and safety at work standards could be better resolved if the public administration would develop some tools in order to provide professional training for domestic workers and families.” (Ramos Martin & Belen Munoz Ruiz, 2020) The authors also point out that the COVID-19 pandemic has had a particularly negative impact on domestic workers’ situation. This is also confirmed by findings from the PLUS project (Chicchi et al., 2020): Domestic workers have suffered a higher risk of contagion in private homes where the provision of protective equipment was often in the responsibility of the worker. Moreover, one of the main consequences of COVID-19 has been a reduction of working hours and, in some cases, a loss of jobs, resulting from fear and restricted mobility associated with confinement measures. In industrial cleaning, as offices were closed during lock-downs, cleaners were sacked or put on short work.

In Germany, the cleaning sector is traditionally low-paid, carried out by female workers and often takes place under precarious conditions. The generally binding union wage for cleaners in the sector has risen to EUR 11,11 per hour in 2020, also including temporary agency workers.¹⁸ However, most cleaners in private households continue to earn the federal minimum wage of EUR 9,50 per hour. As in the UK, income from cleaning is often topped up with income support from social benefits or with income from other jobs, including platform jobs.

¹⁸ https://www.lohn-info.de/mindestlohn_gebaudereinigung.html



Jobs in cleaning do have the image and self-conception of working “on the side”. According to an expert in the Berlin focus group discussion, cleaners employed for industry cleaning, are permanently signing new contracts or amendments to contracts. Often, if pay rises are due, working hours are reduced in order not to raise costs for the clients. That means workers need to increase their labour productivity. The *Helping* model perfectly fits to the non-binding and flexible character of cleaning work in general, where employees often hold multiple jobs. In addition, the *Helping* model rests on the recruitment of self-employed workers, hence working conditions are not regulated by an employment contract but by general terms and conditions. Hence, the trend of employment conditions in cleaning is more flexibility, less binding agreements whereas continuity, a fixed workplace and one with the same client are rare. Through platforms, the legal basis of the work has shifted from undeclared work to a sort of semi-formality, as one union representative from Berlin explained:

“The bottom line is that what used to be undeclared work has been half-legalized. But that doesn't make it any better for the employees now. Of course, the incumbent employers see [the platforms] as competition for workers. [...] A good cleaner has about 25 scrubs hanging in her locker because she's been to every company, it feels, but never changed properties. ” (BE-FG-3).

In the same fashion, the trade association for cleaning services (Bundesinnungsverband Gebäudedienstleister) has called cleaning platforms a sort of “legalised undeclared work” (legalisierte Schwarzarbeit), emphasizing the aspect of false-self employment on platforms. Reports also mention that besides the development of platforms, self-employed cleaners have become a more regular phenomenon in the past years. As they are not tied to a minimum wage, they can compete against companies who employ their staff (ArbeitGestalten, 2017a, p. 12).

The endorsed invisibility of cleaning is not only expressed in the informality of the private household but also *when* cleaning is carried out, as not to “disturb” clients. An important negative feature of working conditions in industrial cleaning is the double shift work. That means, workers are urged to work in early mornings, late evening or night times with a long pause in-between. For the cleaning industry generally, conditions have worsened in the last decades through outsourcing. While higher pay and decent work standards could and should be enforced by lawmakers (such as limiting long-term temporary work and enforcing an industry wage that makes workers not dependent on welfare benefits), demands by associations and unions in Germany have also been made towards bigger customers, especially state-owned or municipal institutions such as schools to in-source their cleaning workers again and reverse the trend of outsourcing.

To summarise, the negative impact of platforms on working conditions in cleaning, and specifically in services provided for private households, has not been as intense as in other sectors precisely because of this history of precariousness and informality. The platform business model is not dominant in the cleaning and domestic sector as formal and informal practices of labour exploitation that pre-existed the emergence of platforms are still in place. The fact that the sector is feminised and racialised has contributed to its being undervalued,



invisible, highly flexible, badly paid and considered informal legitimising generalised violations of labour rights that were unthinkable in other sectors.

4.3.4 Digitalisation and cleaning

When digital means come into play, a couple of aspects are of importance: entrance to the labour market, tracking and monitoring performance, and rating. While most domestic workers find jobs through word of mouth, they also use online forums to find clients privately and informally. In the UK, migrant community groups on Facebook, such as those of Brazilians in London are important spaces for recruitment but also for the exchange of working tips, skills acquisition, and the circulation of information about employers. Searching for gigs online mostly through neighbourhood platforms like Next Door or through local social media groups or ethnic community groups, such as Facebook's Brazilians in London has become widespread. Moreover, due to the growth of social media as recruitment spaces, agencies are creating Facebook pages, in which they advertise job offers and bring together domestic workers with clients. These online practices illustrate that although there are not yet many platforms in the sector, it has been digitised.

Working time has always been a contested issue between workers and customers in private households, with the latter often setting unrealistic time frames for the completion of complex and physically demanding jobs for low payment. It is much more difficult to insist on rights and agreements about working hours and tasks in the private sphere of the household and even more when the employment is informal. Platforms could have the potential to make working times more clearly defined, traceable and to set corresponding prices. Although platforms, like Helpling, allow workers to set their hourly rates, however, it is entirely up to clients to decide working time and tasks. Hence, negotiating the terms of work characterised by personal dependency and a hierarchy that is difficult to contest in the private, remains highly imbalanced. It seems that Helpling is not of much help to rebalance the power relations between customers and cleaners. In contrast, as (Flanagan, 2019) notes, digital platforms are instruments of a fundamental shift in the governance of home-based service work. It moves from dyadic to one of structural domination, as intermediaries aggregate data about workers responsiveness and speed enabling market-based disciplinary mechanisms. Another negative aspect of transparency politics was mentioned in the Berlin focus group discussion: tracking of cleaners' contacts with customers was an important issue. To bypass the high commission fees of Helpling (up to 40% according the interviewee), cleaners aim to establish direct contact with their customers. Helpling penalises workers who uphold informal contacts or contacts not mediated via Helpling severely. How Helpling learns from such strategies, is or is close to personal data misuse:

"So from the EUR 20 that was agreed with the customer, Helpling gives only EUR 12.30 to the cleaner. Then people try to arrange something with the customer. This is heavily penalized by Helpling. And that costs EUR 500 if Helpling discovers such arrangements. Sometimes Helpling finds out that through the app. Actually, Helpling has a privacy policy that people sign. But Helpling reads, everything, all the mail



traffic. We've also heard of people who got this fine just because they talked in chat about the possibility to approach clients privately." (BE-FG-4)).

The issue of rating on platforms or simply websites is not a new phenomenon itself in cleaning. Technological tracking is new, however some forms of rating (and their association with the cleanliness of the worker) have been present before and are also done in the industrial cleaning sector. According to (Hunt & Machingura, 2016), on-demand platforms are designed to widen customers' choices, to facilitate trust and service quality assurance. This includes systems to rate and review workers, and the ability to select workers based on demographic characteristics such as age or gender. These systems disproportionately benefit customers (who are not rated) and bureaucratise the unequal power relations in the workplace "household". The rating systems that platforms impose may create even more exploitative relations with clients, as they may be used as a means of putting pressure on workers to abide with clients' demands. Bad ratings and reviews by clients-no matter how unsubstantiated and/or untrue- may have a devastating impact on domestic workers' careers and clientele, as was confirmed in the interviews in London (LO-INT-3, LO-INT-4).

4.3.5 Online Platforms: no major threat for incumbent companies and traditional employment forms

Before, assessing incumbent companies' strategies towards the entrance of platform companies into their industries, we present some facts about the most relevant player in terms of platform activities in cleaning, Helpling.

4.3.5.1 Helpling – major platform player in cleaning

Germany-based Helpling is the leading online platform of on-demand cleaning services outside the United States and active in 10 countries and over 200 cities¹⁹. In recent years, the company has faced several challenges to its expansion plans and business model, which led to the closure of operations in Sweden, Spain, Brazil and Canada. By 2021, Helpling was technically active in four PLUS cities: Berlin, Bologna, London and Paris. Germany is Helpling's biggest market by far, where the company has reached the leading market position after purchasing its main competitors. The market size in Paris and London appears small but unclear and in Bologna the company is hardly existent. In Germany, Helpling is specialised in cleaning, gardening, maintenance works but also transport services for private homes. In the UK, Helpling also offers office cleaning. For Berlin, Helpling recently announced to enter the B2B business.²⁰ Helpling takes care of administration of the client-cleaner relationship including invoicing, IT, communication, etc. using an external payment service provider for invoicing. Most importantly, Helpling does not describe itself as an employer of cleaners, but

¹⁹ <https://www.helpling.de/presse>

²⁰ <https://www.deutsche-startups.de/2021/02/28/philip-huffmann-helpling-currywursttalk/>



as an intermediary²¹ between clients and cleaners or “partners”, i.e., small companies whose employees carry out the actual leaning work; the clients are private households. Criticism against Helping regard the employment statuses of their cleaners. Framing the cleaners as self-employed may have consequences for their social security status and health insurance issues as well as missing employment benefits and raises uncertainties regarding taxes (Altenried et al., 2021, pp. 68–73).

According to an interview with Benedikt Franke from 2017 (one of Helping’s founders, he resigned from his activities in 2020), employment (including training, career development and standardised work processes) in household-related services is not profitable for Helping, as customers are not ready to pay EUR 20 for one hour of cleaning services. He sees „Helping as an alternative to informal work.“ (ArbeitGestalten, 2017b, p. 18). Cleaners are not employed by the platform. However, the platform is not allowed to charge a commission from the self-employed cleaners according to a ruling from 2019, proclaimed in the Netherlands.²² This is also stated in the ILO Convention 189, Art. 15 (e): fees charged by private employment agencies may not be deducted from the remuneration of domestic workers.²³

The legal litigation in the Netherlands was launched by the Dutch trade union FNV and a cleaner who claimed Helping to be an ordinary cleaning firm subject to the collective agreement applicable in the cleaning sector. In the judgement, the Amsterdam District Court did not find evidence about an employment relationship between *Helping* and the cleaners. Helping was neither classified as a cleaning company nor as a staffing agency that has to offer an employment contract. However, the court stated that Helping was more than an online notice board and that it played an active part in the "agency" process. In this court ruling, not Helping but the customer who purchased the cleaning service was classified as an employer (De Stefano et al., 2021, p. 16)

In London/UK, Helping operates in a relatively small and specialised labour market, in which until recently employment patterns have been based on a pairing of mainly upper-class, often non-British, employers who recruit migrant domestic workers. Domestic work seems to be difficult to be grasped by the platform model in London (a) because there is widely available cheaper and easily exploitable undocumented labour in the informal market and (b) newly arrived migrant undocumented workers refrain from using applications like Helping as in many cases their language skills are weak, and they cannot read the contracts or navigate the platforms easily (LO-EX-3).

²¹ <https://www.helping.de/nutzungsbedingungen>

²² <https://www.loyensloeff.com/en/en/news/news-articles/online-platform-helping-is-not-allowed-to-charge-any-commission-to-cleaners-n15655/>

²³ https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C189



In Bologna and Italy, Helpling has very limited presence, all in all 250 women and 50 men are active in Italy, around half of them Italians; they serve 1.200 clients in Italy. In Bologna only 6 people offering their services via the platform, according to the PLUS city report from Bologna. The informal market is perceived as the “main competitor”.

In Germany, Helpling cooperates with around 10.000 self-employed workers, according to the company²⁴. However, these numbers still are very low compared to the 47.000 full-time or part-time employed, 300.000 mini jobbers, not to speak about those who work undeclared in private households²⁵, and compared to around 1 million employees in industry cleaning. Interestingly enough, cleaners listed with Helpling in Berlin, are 50% male, according to the company. This is in stark contrast to the overall sector’s gender distribution, as domestic work is highly female dominated.

4.3.5.2 Incumbents and platforms

According to the European social partner representative from EFSI (European Federation for Services to Individuals, EU-EX-3), *“none of EFSI’s members is or operates an online labour platform, but some of the members provide services through online labour platforms. Some traditional actors did create their own platforms, and some have collaborated with Helpling for instance.”* However, those companies retained their business strategies, as they continue to employ cleaners. Thus, platforms are for these traditional actors rather a new way of contacting and finding customers. For the EFSI representative, one main effect of the entrance of platforms into the personal and household services market is that traditional actors need to go online and take care of a better online presence, including more transparent pricing. Some companies, especially small ones, launched their own marketplaces.

In Berlin/Germany, digital platforms have not established themselves as major players or pressured the existing cleaning industry players significantly. The representative of IG BAU (BE-FG-3) describes the relationship as a “co-existence” and “not a serious threat” to the established players in the industry, as cleaning services in private households are usually not profitable for bigger cleaning companies. The union representative pointed out: *“I believe that it is tolerated as long as platforms do not interfere more with the core business [of established companies]. That is our impression.”*

Helpling in Berlin competes to some extent with professional agencies (Zauberfrau Franchise, Miss Finish, Frau Tüchtig) that offer cleaners tailored to customers’ needs; these services can also be booked online but do not make use of an app. However, the price range appears to be higher as cleaners are usually employed at these agencies. Some larger companies have

²⁴ <https://www.helpling.de/pressemitteilung-helpling-gruender-ueber-gesetzesentwurf-von-hubertus-heil>

²⁵ <https://aias-hsi.uva.nl/binaries/content/assets/subsites/hugo-sinzheimer-institute/phs-quality/country-report-germany..pdf>, p.10, https://www.minijob-zentrale.de/DE/02_fuer_journalisten/02_berichte_trendreporte/quartalsberichte_archiv/2021/1_2021.pdf?blob=publicationFile&v=2



recently made approaches towards online booking of cleaning services (with employed workers), but these offeres are tailored towards larger B2B customers. Although the cleaning industry exhibits high degrees of outsourcing, the development of *Helpling* has not led companies to adopt the model of digital marketplaces with self-employed cleaners. Instead, the form of outsourcing through temporary agencies and the deprofessionalisation of the trade appears to be the model that ensure both profitability and worker's compliance. To increase the value of the profession by re-introducing the master craftsman's obligation is not on the agenda for the 10-20 large companies dominating the employers representative body BIV (Bundesinnungsverband des Gebäudereiniger-Handwerks) in the cleaning industry. The union representative (BE-FG-3) supposes that *"if Helpling started to enter the office real estate market or health services, there would be a huge outcry by the incumbents and active action would be taken against it"* – including the compartmentalisation of the trade through increasing the hurdles for market entrance, e.g. through professionalisation.

While the industrial cleaning sector in Germany does not appear to adopt the platform model so far (and does not appear under pressure to do so), platforms have widely spread for other domestic services such as care work, specifically elderly care and outpatient care in Berlin and Germany. Platforms like "Betreut.de" or "Careship" have become active in the last decade (ArbeitGestalten, 2020). In the same vein, the expert interviews from Bologna revealed that attempts to adopt platform cleaning services by some traditional companies before the Covid-19 pandemic. It is expected that this move towards digital services will regain importance due to the increasing need for home and personal services especially for the elderly population. Public welfare is not sufficient to satisfy such needs, and this opens opportunities for private platforms expansion. Moreover, workers will search for job opportunities too due to the risk of unemployment.

4.3.6 Regulation and enforcement

Finally, we revise existing regulations in terms of labour regulation and sectoral regulation, and how they relate or can relate to cleaning activities mediated by platforms and remuneration and working conditions here within. We refer to the importance of the path-breaking ILO Convention 189 on domestic work from 2011; collective bargaining; and the role of subsidisation of household-related services.

4.3.6.1 ILO Convention on domestic work

The global "decent work standard" for domestic work is the International Labour Organization (ILO) Domestic Workers Convention 189²⁶ which specifies domestic worker rights and protections and outline the measures required of ratifying states to make decent work a reality for domestic workers. The International Domestic Workers Network (IDWN), founded in 2009, successfully lobbied "to mobilize domestic workers' organizations and their allies

²⁶ https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C189



worldwide to win an ILO Convention to protect rights of domestic workers”²⁷. In 2011, the ILO Convention C-189 “Decent Work for Domestic Workers”, significantly influenced by the IDWN, was ratified. It is considered a historic success, a benchmark and the recognition of domestic work as an employment relationship like any other. It addresses main concerns raised by domestic workers’ unions and self-organised initiatives. The Convention stipulates and demands the signatories to promote (among other issues): the freedom of association and the effective recognition of the right to collective bargaining; effective protection against all forms of abuse, harassment and violence; fair terms of employment as well as decent working conditions and, if they reside in the household, decent living conditions that respect their privacy; minimum wage coverage; information of DWs terms and conditions of employment in an appropriate, verifiable and easily understandable manner; equal treatment between domestic workers and workers generally in relation to normal hours of work, overtime compensation, periods of daily and weekly rest and paid annual leave in accordance with national laws, regulations or collective agreements; weekly rest of at least 24 consecutive hours; safe and healthy working environment; conditions that are not less favourable than those applicable to workers generally in respect of social security protection, including with respect to maternity; effective protection of domestic workers recruited or placed by private employment agencies against abusive practices; effective access to courts, tribunals or other dispute resolution mechanisms; complaint mechanisms and means of ensuring compliance with national laws and regulations for the protection of domestic workers. In particular, the article 15 aiming at the rights and duties of temporary agencies placing domestic workers is of key importance when it comes to the role of platforms in mediating cleaning work. As mentioned above, in the Dutch jurisdiction, platforms have been already identified as temporary agencies, and not mere “market places” matching supply and demand for cleaning.

ILO C-189: Article 15

1. To effectively protect domestic workers, including migrant domestic workers, recruited or placed by private employment agencies, against abusive practices, each Member shall:

(a) determine the conditions governing the operation of private employment agencies recruiting or placing domestic workers, in accordance with national laws, regulations and practice;

(b) ensure that adequate machinery and procedures exist for the investigation of complaints, alleged abuses and fraudulent practices concerning the activities of private employment agencies in relation to domestic workers;

(c) adopt all necessary and appropriate measures, within its jurisdiction and, where appropriate, in collaboration with other Members, to provide adequate protection for and prevent abuses of domestic workers recruited or placed in its territory by private employment agencies. These shall include laws or regulations that specify the respective

²⁷ <https://idwfed.org/en/about-us-1>, <https://idwfed.org/en/about-us-1/idwf-constitution-eng.pdf>



obligations of the private employment agency and the household towards the domestic worker and provide for penalties, including prohibition of those private employment agencies that engage in fraudulent practices and abuses;

(d) consider, where domestic workers are recruited in one country for work in another, concluding bilateral, regional or multilateral agreements to prevent abuses and fraudulent practices in recruitment, placement and employment; and

(e) take measures to ensure that fees charged by private employment agencies are not deducted from the remuneration of domestic workers.

2. In giving effect to each of the provisions of this Article, each Member shall consult with the most representative organizations of employers and workers and, where they exist, with organizations representative of domestic workers and those representative of employers of domestic workers.

Up until now, eight EU states, including Germany and Italy have ratified the convention, the UK has not, France neither (Ledoux & Krupka, 2020).

Recently, a review of the progress, detailed and worldwide implementation of the decent work standards put forward by the Convention and future challenges after 10 years of adopting the Convention was published by ILO (2021). Key problems still identified are the high prevalence of undeclared work, too long and unpaid working hours, insufficient coverage of OSH regulations and closing the legal gaps by covering domestic workers through general or specific labour law. The last decade saw in many countries, notably in the global South an improvement of domestic workers' employment situation, not least as a consequence of establishing their own representative organisations and building membership. The report also dedicates a chapter to platform-mediated domestic work and indicated that the number of platform companies offering domestic work has surged considerably in the last decade: in 2020, out of 846 companies intermediating domestic workers, 427 were of the traditional type (classical temporary work agencies), 205 were of a hybrid type (temp agencies with a physical location and also intermediating via a website) and 224 were digital platforms (International Labour Organization, 2021, p. 46).

4.3.6.2 Collective bargaining in cleaning in private homes

Some states that have and have not ratified the convention do have specific legislation or even collective agreements governing labour relations and stipulating minimum standards for working conditions. Major problems remain, however, namely the exemption of domestic workers' working conditions from some parts of labour legislation, including the long working hours for domestic workers residing in private homes and that private homes are not regarded as workplaces to be inspected by the Labour Inspectorate due to privacy concerns. And, in the light of the C-189 ratification, the concern is more at the level of labour legislations' and collective agreements' actual effect on the realities of domestic and care workers, often employed undeclared or registered as self-employed. The latter working as freelancers or self-



employed are not protected by labour law and collective agreements since such rules and regulations only cover cleaners who are considered employees.

In some countries, collective agreements regulating domestic work exist. In the following, we will refer to examples from Italy, France and Germany. In the UK, no collective agreement is in place. On the employers' organization side, in rare cases private employers are organised, more often it is charitable or welfare providers, and sometimes commercial companies. As for the latter, as described in section 4.3.6.2, they are mostly engaged in industry cleaning. On the employees' side, different trade unions are active, on European level, the EFFAT (European Federation of Food, Agriculture and Tourism Trade Unions). The role of platforms is specifically addressed in a sectoral collective agreement put in place in Denmark between the Danish union 3F and the cleaning platform Hilfr.

In France and Italy, collective agreements have been negotiated between the national trade unions and the domestic employers' associations for decades. In Italy, the employer side is mainly comprised of families and private households directly. The first National Collective Agreement on domestic work was introduced in 1974. In 2007 a new Collective Bargaining Agreement was put in place, renegotiated in 2013, covering minimum pay, daily and weekly rest times, on-call and stand-by time, paid holidays, sick pay, and severance pay. A Commission under the Italian Labour Ministry governs the agreement, including deciding on pay increases. There is also a health insurance fund, to which both the employer and worker can pay contributions, which gives the worker free access to some medical services.²⁸ While such collective regulations exist and have been in place for a long time, still undeclared employment accounts for 60% of all employment relationships²⁹.

In France, different generally binding collective agreements exist between domestic workers and employers, depending on the type of employment: domestic workers directly employed by the private household; workers employed by non-profit agencies; and those employed by a private company. (European Federation of Food, Agriculture and Tourism Trade Unions, 2015; Ledoux & Krupka, 2020). Ledoux & Krupka (2020) remark that the collective agreement for employees directly employed in private households has included a set of rights from which these workers were excluded in the Labour Code. However, those aspects related to the definition and regulation of effective work and working hours, remain vague compared to those stipulated in the Labour code because the employers' federation remains committed to preserving what it calls "the specifics" of employment by households. The authors conclude that the formalisation of the employment (from undeclared to declared work) and better social protection due to tax incentives or as a prerequisite of subsidies are easier to adopt in France than equal working conditions as in labour relations outside the private household.

²⁸ <https://ad-phs.eu/ht8ag2/uploads/2021/05/country-report-italy-en.pdf> , (European Federation of Food, Agriculture and Tourism Trade Unions, 2015), <https://domequal.eu/countries/europe/italy/>

²⁹ <https://ad-phs.eu/ht8ag2/uploads/2021/05/country-report-italy-en.pdf>



In Germany, collectively agreed working conditions for household work exist on federal and regional level between different unions and employer associations, stipulating maximum working hours, minimum wages, holiday allowances and holidays (Jaehrling & Weinkopf, 2020, pp. 18–19). The authors stress, that these collective agreements do not even cover the majority of those in formal employment, as they are not general binding, however, they can act as a point of reference for private households and employees. In addition, the collective agreement for the industrial cleaning sector negotiated between the trade union IG BAU and the employer association BIV (Bundesinnungsverband des Gebäudereiniger-Handwerks) is relevant to mention. The lowest hourly wage of this CA is at EUR 11.11 in 2021³⁰ has been declared *generally binding* and thus covers all for profit and non-for-profit companies predominantly providing cleaning services. If the CA is applicable to private homes or not, is not straightforward clear, according to (Jaehrling & Weinkopf, 2020). The President of the Business Association representing professional service companies (BHDU) cited in (Jaehrling & Weinkopf, 2020) calls for an urgent clarification and would very much welcome a court ruling stipulating that the collective agreement for the industrial cleaning industry also applies to domestic work in private households, as this would provide a level-playing field, at least among service companies. Such a decision would affect *Helping* only when it would be considered as a company employing and not mediating cleaners.

With respect to the regulation of platform work, experts in the Berlin Focus Group Discussion have pointed to a regulation proposal of the Federal Ministry of Labour and Social Affairs (BMAS) called “Fair work for own-account platform workers”.³¹ This proposal attempts to require platforms to contribute to retirement contributions financially and aims to include workers in occupational accident insurance funds, even if workers are self-employed. The proposal also aims to oblige platforms to prove that workers are self-employed: “*if the platform worker provides indications that an employment relationship exists with the platform operator, the burden of proving that an employment relationship does not exist rests with the platform operator.*”³² Helping has protested against this proposal in public communication.³³

As mentioned above, the UK has neither a collective agreement applicable for the trade nor has it signed the ILO agreement on the rights of domestic workers C-189 of 2011. In contrast, it has introduced legislation on Domestic Workers’ Visas that violates the human and labour rights of women working as live-ins. According to Ramos Martin & Belen Munoz Ruiz (2020),

³⁰ For the first time, the minimum wage between East and West Germany aligned in 2021:

<https://de.statista.com/statistik/daten/studie/273375/umfrage/tariflohn-in-der-gebaedereinigung-in-deutschland/>, https://www.lohn-info.de/mindestlohn_gebaudereinigung.html

³¹ <https://www.denkfabrik-bmas.de/en/topics/platform-economy/summary-of-the-key-issues-paper-fair-work-for-own-account-platform-workers>

³² <https://www.denkfabrik-bmas.de/en/topics/platform-economy/summary-of-the-key-issues-paper-fair-work-for-own-account-platform-workers>

³³ <https://www.helping.de/pressemitteilung-helping-gruender-ueber-gesetzesentwurf-von-hubertus-heil>



in the case of domestic cleaners working for agencies, the agencies often insist that they are self-employed. However, there is a high incidence of bogus self-employment in those cases. Moreover, legislation on subcontracting of cleaning remains weak and deregulation is dominant in the sector.

In general, Ramos Martin & Belen Munoz Ruiz (2020) conclude that the quality of work in private and household-related services improves, when the private household is not the direct employer, hence an intermediary, a company or a public institution interferes, and the private household is only the customer of the household service. In such cases, employment law and social security regulations may be applied to the domestic workers without exceptions or special regulations, the professionalisation of domestic workers may improve and it would facilitate the monitoring of the working conditions of domestic workers, including by the Labour Inspectorate. Hence, following this argumentation, platforms – in case they would function as employers and not as sole intermediaries – could formalise and improve domestic workers' working conditions. For the time being, however, platforms have not taken up the function of employers.

In the cleaning sector in the EU only in the case of Denmark a collective agreement has been accomplished between the cleaning platform Hilfr and the Danish trade union 3F in 2017 (Ilsøe, 2020).³⁴ This agreement is proof that regulation of platform work and the introduction of minimum labour standards to platform workers are possible and that collective bargaining can also cover platform workers. Moreover, it provides for flexibility as it includes an opt-out clause in case workers do not want to switch from freelance status into an employment relation and for predictability as rules for the cancellation of shifts have been introduced. What can serve as a blueprint for future collective bargaining in other platform-mediated sectors, are new rules concerning data protection. The agreement introduces a new category of worker with employment status, next to the existing freelance arrangements. Freelancers can apply to become employees of the platform and be covered by the collective agreement. After 100 hours of work, workers will be considered to be employees covered by the collective agreement, unless they actively opt out from this status.

The collective agreement provides for significant protection:

- It grants an hourly minimum wage of 141 DKK (EUR 19), payment of benefits in case of sickness, and protection against dismissal, a right to holidays and working time protection, in accordance with Danish law.
- It foresees rules on the cancellation of shifts: if a job is cancelled less than 36 hours before the start, the customer has to pay 50% of the agreed remuneration.
- It introduced tailored data protection rules for platform workers, including the submission of a specific and informed consent to post workers' data on the platform;

³⁴ <https://hilfr.dk/om-hilfr>



the right to have “derogatory, false and offensive comments, pictures or characters” removed from [their] profile. It is clarified that such a request “cannot adversely affect the employee’s conditions of employment”. Such a clause shall ensure that workers are not penalised by negative or biased comments received by customers, something that can be extremely detrimental for workers, particularly when algorithms are applied to decide whether other jobs will be offered.

4.3.6.3 The role of subsidisation

For a long time and still, cleaning in private households has not been regarded as proper work. This translates into the bulk of work still performed unpaid or in informal arrangements. Demand for cleaning and domestic work in general is rising, however, working conditions remain poor. This has also to do with the limited potential profitability of the sector, rationalisation is hardly possible and prices for such services cannot surge according to its demand, as private households face budget constraints and are not willing to pay much for such services. If prices are too high, domestic work is again informalized. This relation was also mentioned by Helpling’s (former manager) Benedikt Franke who stated that customers are not prepared to pay EUR 20 for an hour of cleaning. He concludes that more costly employment (instead of self-employment) is not possible, unless tax incentives to subsidise the purchasing of household-related services are introduced or increased.³⁵ This is of course a highly illuminating statement of the biggest platform’s founder: decent working conditions in domestic cleaning are not affordable, unless the activities are subsidized. Several countries, including the PLUS countries Germany and especially France, have introduced fiscal measures to make the monetization of household activities more attractive to customers and to combat undeclared work in the sector. Tax deductions, of course, are only an option for households who pay income tax. In countries with progressive tax systems, a deduction model that is based on deductions of the tax base, favours households with higher incomes. In the end, they can save more in tax payments than households with low income or households who do not pay any income tax.

In Germany,³⁶ tax deductions are available for any task that would normally be performed by household members in the home. Up to 20 percent of the amount paid for the completion of these tasks may be deducted from the personal income taxes. The tax deductions are only available in case of full-time or part-time employment (with the obligation of social security contribution payments) for more than 20 hours/week; service provision by craftsmen and part-time employees, who work less than 20 hours/week; direct employment of mini-job workers. The last category is the most widespread.

³⁵ <https://www.arbeitgestaltengmbh.de/assets/projekte/Joboption-Berlin/Der-Job-als-Gig-Expertise-Digital-November-2017.pdf>

³⁶ Information retrieved from: https://ad-phs.eu/ht8ag2/uploads/2021/05/ad-phs-country-report-germany_december-2020.pdf



In France,³⁷ there is an official scheme for the employment of domestic workers, called ‘universal service employment cheque’ (chèque emploi service universel, CESU). Private or public employers, as well as welfare and pension institutions can buy these cheques and subsequently obtain a tax deduction if they give these cheques to the domestic workers. Domestic workers need to be employed through a service provider, intermediary or directly by households and are paid with this service cheque. Employers are obliged to give pay slips to the workers showing hours worked, wages, and bonuses/allowances.

Another widely acknowledged Service Voucher Scheme was introduced in 2004 in Belgium. It is a consumer subsidy to create jobs and to promote regular employment in the domestic service sector by encouraging demand for these services through highly subsidised prices. According to (Leduc & Tojerow, 2020) who have assessed the effectiveness of the Belgian Service Voucher Scheme, it is an effective policy tool to reduce unemployment and to increase (formal) labour market participation among low-skilled workers, however only in the subsidised part of the labour market. It also contributed to formalise formerly non-declared work. On the downside, they found out that due to high physical and psychosocial workloads prevalent in this kind of work, (subsidized) workers suffered from severe health problems and had to drop out of the scheme due to health reasons while the worker’s probability of claiming short-term disability insurance benefits one year after entering the scheme tripled.

4.3.7 Conclusions: Helping and Cleaning

Cleaning work encompasses activities that are performed by workers employed by private households, by public institutions or local welfare providers, by temporary agencies or by profit-oriented companies. They can also be performed on a self-employed basis, including the use of platforms or intermediaries. The demarcation of cleaning with regard to certain industries is difficult: it becomes blurred in the provision of domestic services, as often aspects of care work intermingle with pure household work, especially when it comes to the provision of household services for elderly people in need of care. Cleaning activities are part of overall building maintenance activities in professional companies. Our research showed that platform companies such as Helping are predominantly active in domestic cleaning, in the UK, however they also expand into office cleaning. Up until now, it seems such companies do not pose a major competitive threat to incumbents in the sector - that is facility service providers and the “informal sector”.

Looking at the numbers – even those bottom-line numbers gathered through Eurostat – the activities of Helping, as the major player in this field, are minimal compared to official employment numbers, not to talk about the informal sector. In Germany, where Helping is by far most active, it cooperated with around 10.000 self-employed workers. In the same year, more than 300,000 mini-jobs and 47,000 full-time or part-time employed domestic workers were reported in the sector.

³⁷ Information retrieved from: https://ad-phs.eu/ht8ag2/uploads/2021/05/cr_france_.pdf



When it comes to the comparison of working conditions between platform workers and cleaners not working through platforms, we need to point out the sectoral legacies. The sector is characterized through female and migrant – often undocumented – work, low payment, employment relations based on informality and sometimes personal dependency. Moreover, employment in private homes is officially and often not subject to the same labour legislation as salaried work in other sectors. Also, the services provided needed and still need to be acknowledged as “proper work”: “domestic work is work!” is one of the key demands of representative organisations pinned down in the ILO convention. In that sense, from all the PLUS sectors examined, cleaning platforms have the least disruptive impact on the incumbent sector, simply because domestic work and cleaning work has been characterised by poor working conditions ever before.

Demand for cleaning and domestic work is increasing, not least due to demographic, socio-economic and public policy developments. Platforms are said to help formalizing employment in this domain, as workers have to register online and are visible on a website for hiring. However, a central question remains: do platforms contribute to formalizing domestic work and do they improve domestic workers’ social protection and working conditions? Digitalisation may provide new avenues for domestic workers and cleaners to search for employment and become more independent and escape the (poor) working conditions that agencies impose. Platforms could allow for minimum guarantees, such as the monitoring of working time, filtering clients, or setting hourly payments. However, the downside of increased use of digitalisation are tracking and rating systems that seem to be one-sided for the benefits of customers (and platforms). Domestic workers using digital platforms are governed through such instruments not simply by dyadic but by structural domination, (Flanagan, 2019) notes, as intermediaries aggregate data about workers’ responsiveness and speed enabling market-based disciplinary mechanisms. In addition, when it comes to care work, Flanagan criticises the short-termism and exchangeability of workers which is undermining the quality of caring relationships that demand an atmosphere of trust and non-instrumentality.

Moreover, platforms hiring domestic workers as independent contractors could undo progress in the formalization of domestic work. Legal rights and protections already in place and fought for would be questioned again for “the good of flexibility”, as such arrangements open up new opportunities to precarious and unstable employment instead of better valorising this kind of work. Hence, formalisation in terms of the mere declaration of work might take place but only against establishing precarious, unstable, non-committal working arrangements. The Helping model perfectly fits to the non-binding and flexible character of cleaning work in general, where employees often hold multiple jobs. In addition, the Helping model rests on the recruitment of self-employed workers, hence, the trend of employment conditions in cleaning it seems is towards more flexibility, less binding agreements whereas continuity, a fixed workplace and one with the same client are rare.

The demand for decent working conditions and social protection of domestic worker has a long tradition. Only in 2011, a global standard on domestic work, specifying workers’ rights, protections and measures, was proclaimed by the ILO C189, the Domestic Workers’



Convention 2011. It can be taken as a benchmark for minimum labour standards in the sector and also as a benchmark for platforms to provide for decent working conditions. In addition, in several European countries collective bargaining agreements covering domestic workers or cleaners exist that – at least partly – addresses the typical problems of workers in private homes.

One key concern is the legal characterization of the platform: platforms argue, they are merely matching demand and supply of services. Legal experts and scholars frequently argue that platforms structure the work and subordinate the workers through detailing the work, setting the working time, through wages and through control and monitoring systems. In the Netherlands, at least, a platform needed to comply with regulations in place for temporary work agencies, and platforms are not allowed to charge commission from cleaners, however they do not have to be employed by the platform (NL). The problematic role of intermediaries and temporary agencies also is an “old” issue in domestic work that was already addressed in the ILO 189 convention.

A noteworthy way forward to tackle precarious work in platform-mediated domestic work is the conclusion of a collective bargaining agreement offering cleaners the right to employment: In 2018, the Danish union 3F concluded the first collective bargaining agreement (CBA) for cleaners working via platforms. It established a new category of worker: after 100 hours of work, freelancers are automatically treated as employees covered by CBA, unless they *actively* opt out of this status. Protections provided by the CBA are minimum wage, sick pay, rules on cancellation of shifts, and the provision for data protection, including the right to remove inappropriate comments from the platform.

In regulating employment, it is also the state playing a crucial role in initiating rules for cleaning and domestic work in private households. It is proven that informal work declines if tax reductions or other subsidies such as service cheques are implemented to incentivise the formal employment of a domestic worker. Making profit from this kind of service work, i.e. extracting surplus value from it and providing it via capitalist companies, is rather difficult. Still, the bulk of domestic work is either performed unpaid or undeclared. Ursula Huws (Huws, 2019, pp. 129–134) sees “productive” private services on the rise and with it workers working for private service companies, including platform companies. However, even platforms proponents suggest such policy initiatives to stay in business and competitive to the informal sector. At this point, other objections can be posed: why subsidising profit-oriented companies providing household services? Why subsidising those households that could afford domestic workers? Especially where caring and cleaning activities blur, it would also be the task of public policies to provide for decent employment and decent care, and not to shift social responsibilities to the private sector.



4.4 Uber and passenger transport

4.4.1 Sectoral description and market development

Platform-mediated private passenger transport services, its most famous proponent being Uber, are visible and popular with customers, contested by politics and regulators and have comparably gained much scholarly attention. Private passenger transport in cities is one of the industries most affected by the emergence of platforms that provide passenger trips, in terms of numbers and in terms of regulatory impact.

The following chapter gives an overview over the quantitative dimension of ride hailing and taxi operation services as part of passenger transport in the PLUS countries, and where available in the PLUS cities. Moreover, recent developments in employment and the overall market structure and company strategies in taxi services and ride hailing are explained and how they interfere or do not interfere with the activities of platform companies offering ride hailing services. Finally, we outline most important sectoral regulations or regulations that impact highly on the ride hailing sector, such as state and municipal laws regulating the industry and recent verdicts about the employment status of drivers.

The PLUS survey data allowed for a comparison between the use of Uber and similar platforms on the one hand and regular taxis on the other. As was revealed in chapter 3.2.1.1 and Figure 2, the seven PLUS cities can be divided into three subgroups: In Barcelona, Berlin and Bologna, the user percentage (frequent and occasional use) for regular taxis is clearly higher than the use of Uber and similar platforms: in Barcelona, 52% of respondents use traditional taxi services and 32% use Uber and similar platforms; in London and Paris, regular taxis also have more users than platforms (57% vs 53% in London and 48% vs 45% in Paris), but only by a small margin (3 and 4 percentage points respectively); in Lisbon and Tallinn, more respondents use Uber and similar platforms than regular taxis, with the difference rather narrow in Lisbon (6 percentage points) and substantial in Tallinn (31 percentage points) where 46% of respondents in Lisbon and 73% in Tallinn use Uber and similar platforms for private passenger transport services.

The data description section refers to employment and industry data from taxi operation services, where ride hailing activities are subsumed. Data was gathered from EUROSTAT labour force survey and structural business survey, municipal statistics and complemented by desk-top research, focusing on the NACE category “Taxi operation services H.49.32” (see *Table 10*). The analytical sections are mainly based on the PLUS city reports and the city industry reports from Berlin, Tallinn, Paris, Lisbon and London, the five cities where working conditions of Uber’s drivers were explored (Altenried et al., 2021), as well as on interviews with social partners at EU level (ETF, ETUC, ETUI, EFSI, HOTREC, Uni Europa, see Annex, 7.1). The city reports are based on expert interviews conducted between April and July 2019 in each city (see interview guideline and list of experts in Annex, 7.1), the city industry reports on the taxi industry are based on focus group discussion (Berlin, Tallinn) and interviews with industry experts where focus group discussion were not possible in London, Lisbon and Paris due to



the research conditions during the Covid-19 pandemic (see interview guideline and list of experts in Annex, 7.2).

H.49.32	Taxi operation services	<p>49.32.1 Taxi operation services This subcategory includes: - motorised taxi services, including urban, suburban and interurban - non-scheduled airport shuttle services These services are generally rendered on a distance-travelled basis and to a specific destination. This subcategory also includes: - connected reservation services</p> <p>49.32.11 Taxi services This subcategory includes: - chauffeur-driven rental car services, wherever delivered, except taxi services These services are generally supplied on a time basis to a limited number of passengers and frequently involve transportation to more than one destination.</p>
H.4.93	Other passenger land transport	<p>H.49.31 Urban and suburban passenger land transport</p> <p>H.49.32 Taxi operation</p>

Table 10. NACE categorisation of taxi service operation

For the last decade, the city industry reports from Berlin, Tallinn, Paris and Lisbon have clearly indicated an increase in taxi operation services in general, i.e., including the activities of ride hailing services. This is on the one hand a consequence of a general economic boom, in particular city tourism and on the other hand, a consequence of an increased supply of taxi services due to the entrance of platform-mediated rides.

In all PLUS countries, we see in the harmonized EUROSTAT data available a steep or considerable (France, Germany, Estonia, Italy, Portugal) increase and a stable development (UK, Spain) of active enterprises in taxi operation services between 2009 and 2018 (see Figure 35).



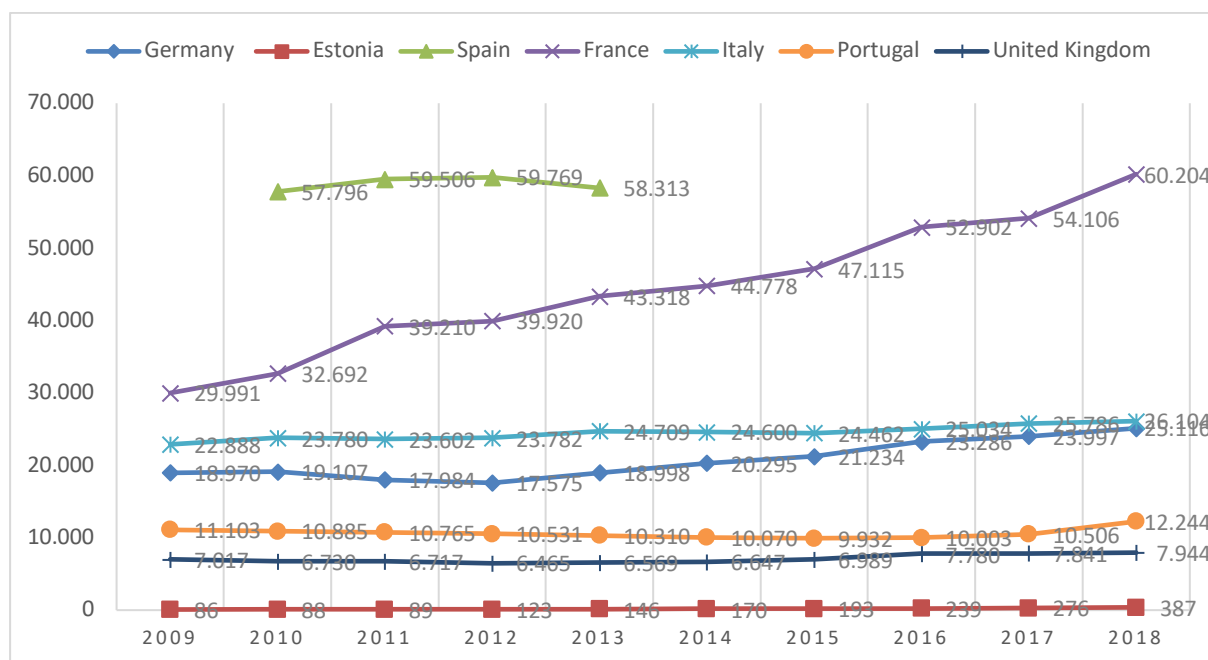


Figure 35. Active Enterprises in taxi operation services, selected countries, 2009-2018 (Source: Eurostat Structural Business Survey [sbs_na_1a_se_r2])

When it comes to employment numbers, three countries have recorded a decline (Estonia, Italy and Spain), Portugal has experienced a relatively stable development, and the UK, France and in particular Germany have recorded increasing numbers of employees in taxi operation companies (see Figure 36).

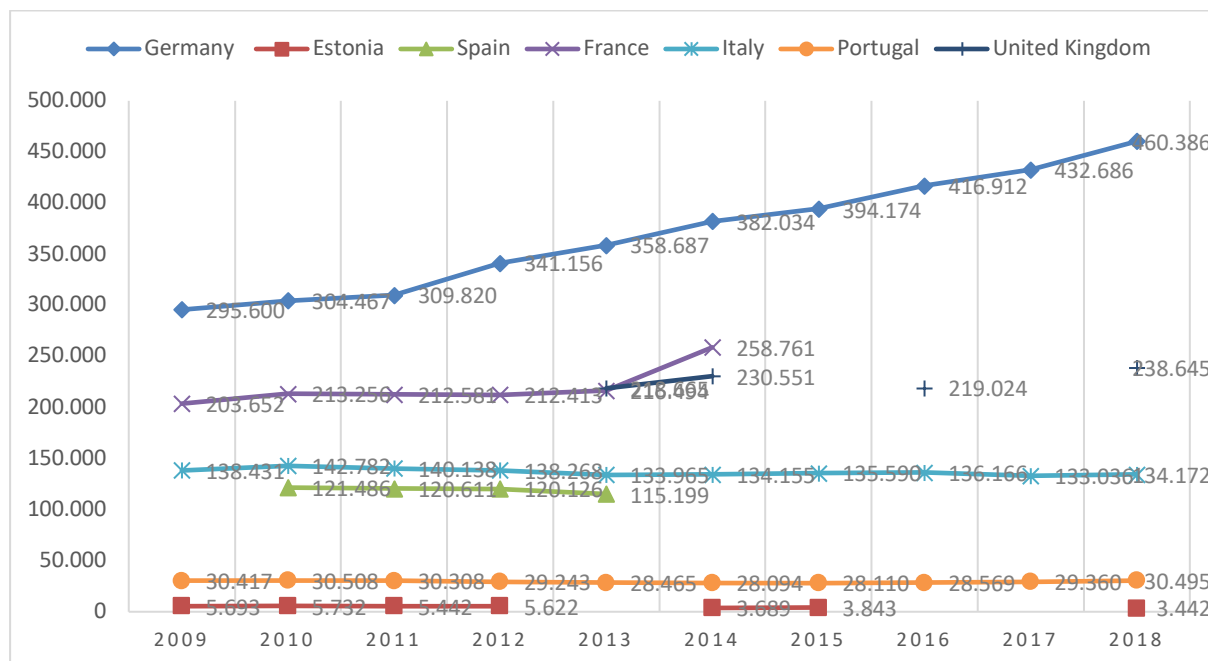


Figure 36. Employees in taxi operation services, selected countries, 2009-2018 (Source: Eurostat Structural Business Survey [sbs_na_1a_se_r2])



Employment data at city level for NACE category 49.32 was available for London. For Paris we can refer to specific municipal data on different drivers' categories on the basis of full-time equivalents.

City-specific data for Paris (Figure 37) show a decline of the taxi drivers' full-time equivalents while those of „conducteurs de voitures partagées“ (car-sharing drivers) has been on the rise in recent years. However, numbers are only available until 2015.

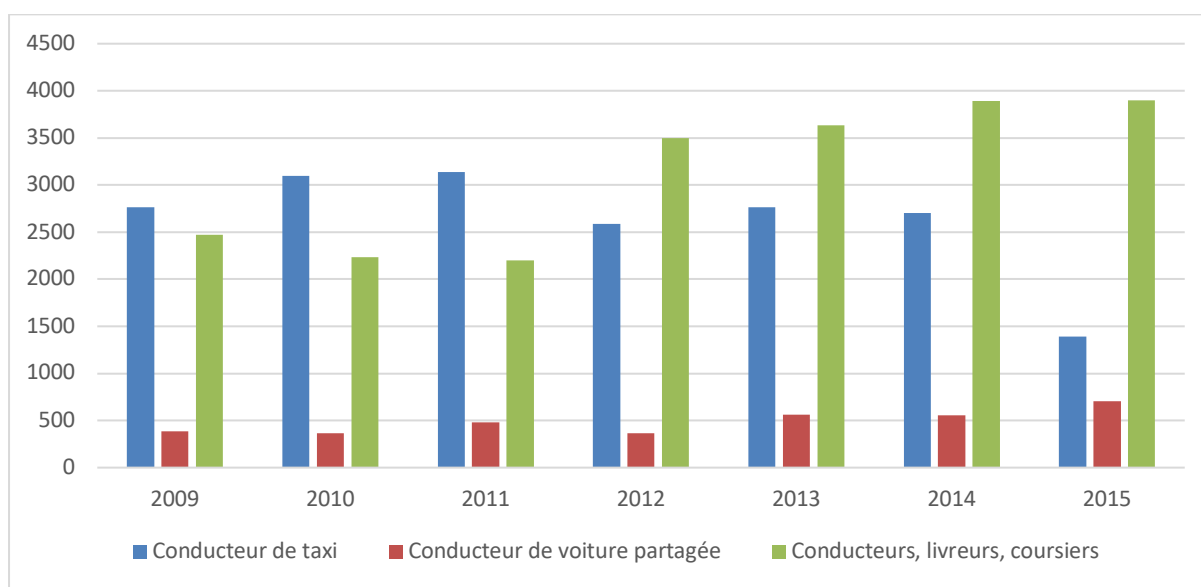


Figure 37. Conducateur de taxi (taxi drivers), Conducateur de voiture partagée (car-sharing drivers), Conducteurs, livreurs, coursiers (couriers), 2009-2015, in Full-time-Equivalents, Paris (Source: PLUS city data)

For London, data on employment is volatile, peaking in 2016 at almost 60.000 employees, in 2018, however, numbers went down again to 41.400 employees (Figure 38). Comparing the expansion of the number of active enterprises in London and the UK between 2010 and 2016, London has experienced a steeper growth than the UK. While average company size in terms of employee numbers in London increased as from 2013 to 2016 (latest data available for London's enterprise numbers) from 28.8 employees per enterprise to 32 per enterprise, the ones for the UK decreased from 27,8 to 20,5 employees per enterprise, indicating a more pronounced concentration process in London. Another important aspect, according to the Labour Force Survey, around 88% of employment in London's taxi industry in 2018 comprised of self-employed workers.³⁸ An interesting development in the UK is how expenditure for temporary agencies for taxi operation services have changed (Figure 39): between 2015 and 2017 it has exploded from EUR 1,6 to 50,7 million. Unfortunately, it was not traceable what was the reason for this staggering increase.

³⁸ Source: PLUS city data, Labour Force Survey

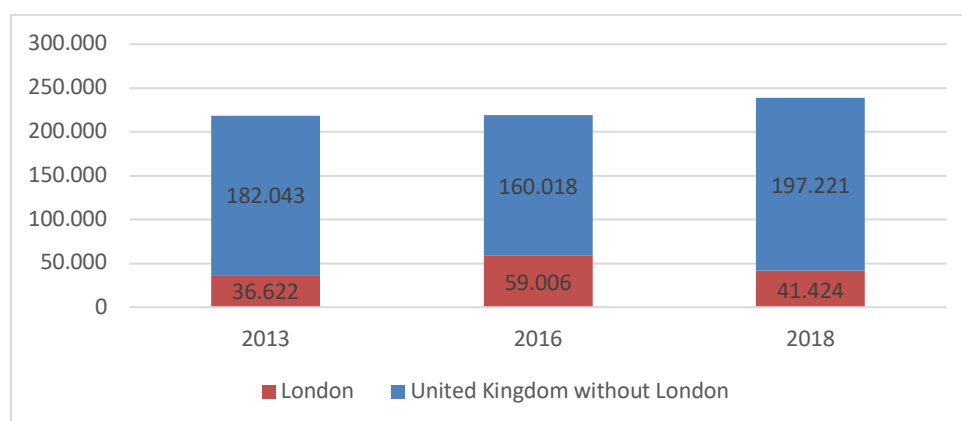


Figure 38 Employment in taxi operation services, London and UK, 2013, 2016 and 2018 (Source: Labour Force Survey, PLUS city data)

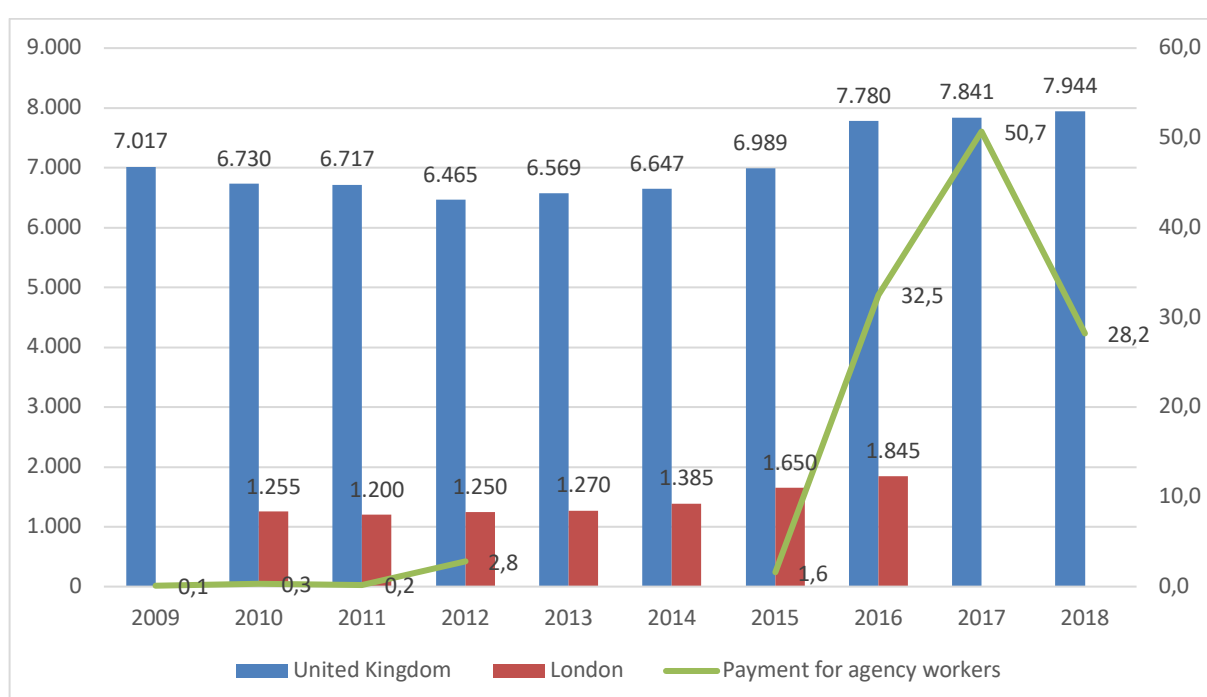


Figure 39. Active enterprises in taxi operation, UK and London, 2009-2018 and Payment for agency workers in UK, in Mio EUR (Source: Eurostat Structural Business Survey [sbs_na_1a_se_r2], PLUS city data)

Harmonised EUROSTAT data only showed a clear increase in employment (though only available at national level) in taxi operation for Germany, France and the UK. In the other countries, a stagnation or even a decline was recorded between 2009 and 2018. This is somehow a surprise, as according to the expert interviews and focus group discussion, in all cities covered by the PLUS research for this industry (Paris, London, Tallinn, Lisbon, Berlin) an increase of private passenger transport was reported. Of course, the discrepancy can be due to differences in the development of employment between cities and the country as a whole and can also be due to a pronounced decrease in employment in traditional taxi operations,



compensating for the increase of ride-hailing operations, including Uber drivers. Another explanation might be that taxi and ride-hailing drivers work undeclared or complementary to a main job.

In all cities covered by the PLUS research, the taxi operation services industry has faced major challenges by platform-mediated business. The industry can be divided – from a regulatory and from a business operating perspective – into two main segments: the traditional taxi trade (needing license, being subject to price regulation and vehicle caps) and the ride hailing services (with less regulatory constraints) where Uber and similar platforms are active. In section 4.4.4, we explore how these two models are merging in many cities. The tendency in all cities is a stagnation in the taxi industry and a steep increase in transport services provided by ride hailing platforms. In the following, we briefly describe trends for each PLUS city (Tallinn, Berlin, Lisbon, London, Paris). With respect to data, the number of vehicles as well as business licenses in use for traditional taxi business and for ride-hailing are important indicators for the twofold industry's development.

In **Estonia** two forms of private passenger transportation can be discerned: traditional taxi trade (the driver needs to have taximeter, printer, illuminated sign, price list, trademark) and ride hailing services (ordering the taxi and calculating the price through an app). In Tallinn, Uber drivers *and* traditional taxi drivers need a taxi license, service provider card and a vehicle card (with that card a person is allowed to use this car as taxi) granted by the municipality where the driver wishes to provide taxi services. With the amendment of the Public Transport Act (see section 4.4.4.3) that came into force in the end of 2017 and created new regulations for ride-hailing and taxi services and ride-hailing was catching up. In 2018, 661 vehicle cards for ride-hailing services and 990 vehicle cards for traditional taxi services were issued, in 2019 the numbers were at 788 (ride-hailing) and 729 (taxi). In terms of issuing service provider cards that allow you to work as a taxi driver, we see that between November 2017 and June 2019, the cards for ride hailing services (4.832) more than tripled that for the traditional taxi trade (1.360).³⁹ This development also corresponds to customer behaviour: According to a survey conducted in 2018, in Tallinn, out of those who have used taxi services within the previous six months, 75% have used Bolt (former Taxify) and 35% Uber.⁴⁰ Experts argue that platform-based ride-sharing companies have had considerable impact on “traditional” taxi businesses (decline, bankruptcies, change of business models).

Germany's sector for transportation of private passengers is separated into taxi services and rental cars.⁴¹ In **Berlin**, from 2010 onwards, the taxi market for drivers expanded due to increased tourism to the city. Through the market entry of Uber (2014, and later FreeNow, 2019), the number of cars offering private passenger transportation services rose by more

³⁹ Source: PLUS city data, https://mtr.mkm.ee/taotluse_tulemus/erioticsing/taksoluba

⁴⁰ <https://www.kantaremor.ee/pressiteated/taksoappide-uuring-noored-pigem-toksivad-vanemad-helistavad/>

⁴¹ As of 2016, 56,000 taxis and 36,000 rental cars were registered in Germany, <http://taxipedia.info/zahlen-und-fakten/>



than 50%; according to a counsellor at a Berlin centre for unemployed persons and a former taxi driver himself (BE-FG-2), in 2014 7.000 taxi cars were available in Berlin⁴² until the start of Uber. The number of vehicles for passenger transport services expanded to 11.000 vehicles, i.e., 4.000 of them offering Uber and later FreeNow services. Compared to other German cities, the rate of taxis in the last decades has been high and the booking frequency low, leading to potential oversupply of taxis in the city. While the taxi sector in Berlin is regulated by a municipal authority (Landesamt für Bürger- und Ordnungsangelegenheiten) that imposes a limit to the number of taxis according to market demand, there is no such regulation for rental cars. Although the relatively strict regulation hindered Uber from offering services such as Uber Pop or running their service through self-employed drivers, the taxi sector has been hit hard by the market entry of the company, because the company offered the transportation services at lower prices. BE-FG-2 estimates a decrease in turnover among taxi drivers by at least 30% since Uber has started in Berlin.

In **Lisbon**, in the private transportation sector, Uber and three other platforms are operating (Bolt, Cabify and Kapten). They can be subsumed under the category of “*Transporte em veículo descaracterizado*” (TVDE) – Private transportation on non-characterized vehicle. The traditional taxi sector regarded as a public service has experienced a fall in demand since the entry of platforms companies in 2014. This fall, however, has been limited compared to its disruptive potential by the expansion of the tourism market, which has generated overall demand for private passenger transport services (LI-INT-1).

In **France**, we can also distinguish between “traditional” taxi drivers and drivers under the regime “*VTC-voiture de transport avec chauffeur*”. Taking a look at the development of taxis and VTCs between 2016 and 2018, a continuous increase is recorded. In 2016, more than 71.000 vehicles were on the road in France for the private transport of people, of these 56,000 were traditional taxis (78%) and 15,000 were VTCs (22%). In 2017, the number of taxis remained the same (68%) and the number of VTCs surged to 26.000 vehicles (32%).⁴³ A year later, taxis would account for 58% of the vehicle supply and VTCs would account for 42%, bringing the total number of vehicles to more than 102.000 by December 31, 2018. The strong increase in VTCs recorded over the past two years is largely explained by new regulatory terms: the *Grandguillaume* law requires all drivers to obtain a VTC professional card for operating with a vehicle registered by an operator (see section 4.4.4.1).⁴⁴ For **Paris**, it was estimated that nearly 50.000 private passenger transport vehicles circulated in 2018, of which

⁴² While the exact number of drivers for Berlin is unknown, the Berlin Senate states that 7,020 taxis were registered in the city as of November 2020. <https://www.berliner-zeitung.de/mensch-metropole/es-sieht-duester-aus-berlins-taxibranche-kaempft-um-ihre-existenz-li.126133>

⁴³ https://www.epsilon.insee.fr/jspui/bitstream/1/80054/1/SDES_data_39.pdf, p.10

⁴⁴ <https://www.statistiques.developpement-durable.gouv.fr/sites/default/files/2020-01/datalab-63-les-taxis-et-utc-en-2017-2018-janvier2020.pdf>, p.10



35% account for taxis and 65% for VTCs. In comparison, London has nearly 109.000 vehicles, VTCs represent more than 80% of the private passenger transport vehicle supply in 2018.⁴⁵

The ride hailing sector in **London** was traditionally composed of two types of vehicles:⁴⁶ the traditional black cabs, which are large, spacious and run by self-employed licensed drivers, have set prices and are only taxis licensed for people to hail on the street. The mini cabs are smaller, cheaper and run by companies, which control the communication with customers through phone-call centres and allocate rides to drivers accordingly. The latter have special licenses as “private hire vehicles” (PHV) and must be pre booked and it is illegal for them to pick up a fare without phone or digital booking (LO-INT-12). The number of total licensed vehicles (licensed taxis and private hire vehicles) in England was at 291.800 in 2019.⁴⁷ Over three quarters (76%) of all licensed vehicles in England were PHVs, around a quarter (70.600) of these vehicles were taxis. Overall, there has been a 58,1% increase in total licensed vehicles in England since 2005. In London, since 2005 a 120% increase in PHV and a 3% decrease of licensed taxis has been recorded. According to experts, Uber in **London** has completely eliminated and substituted the mini-cab sector (LO-EX-7, LO-EX-8), also demand for black cab taxis has dropped because of increased competition with platforms. Minicab companies almost disappeared from London. Black cabs continue to operate, mostly in central London, as they are iconic of the city, offering services mainly to more affluent customers, businessmen, tourists, groups of more than 3 persons, Airport rides, and provide more personalised services (LO-INT-10). The situation for black cabs has worsened because of road closures and the pandemic as the black cab sector depends heavily on the business, tourist and entertainment sectors, which have been completely closed in 2020 (LO-INT-9). The pandemic accelerated what was already happening in the sector: “black cabs will remain in the streets of London only as a tourist attraction” (LO-INT-11).

4.4.2 Working Conditions

Working conditions in the taxi operation industry are generally described as poor or becoming poor: low and unstable income, long working hours, high competition when entrance barriers to the profession fall or fixed pricing is levied. Working as a taxi driver is detrimental to health, and is one of the occupations more prone to physical assaults (Reid-Musson et al., 2020). Ride-hail drivers are subject to the same hazards as taxi drivers alongside new workplace challenges such as digital surveillance, information gaps in terms of rules or obligations as self-employed

⁴⁵ <https://www.statistiques.developpement-durable.gouv.fr/sites/default/files/2020-01/datalab-63-les-taxis-et-vtc-en-2017-2018-janvier2020.pdf> , p.14;
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833569/taxi-and-phv-england-2019.pdf

⁴⁶ <https://tfl.gov.uk/modes/taxis-and-minicabs/what-to-expect-from-your-journey>

⁴⁷ All data presented in this paragraph based on:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833569/taxi-and-phv-england-2019.pdf



operators (see impact of platform economy on labour processes (Altenried et al., 2021)). The PLUS research showed that ride-hail drivers often receive less training, their taxis are less often inspected and drivers need to work long hours combined with the application of an automatic price algorithm system (the lower the price per ride the more hours must be worked). Such are prerequisites for high occupational health and safety risks. The entrance of Uber and other ride-hailing platforms definitely had a negative impact on working conditions for the overall industry. Remuneration oscillates around the minimum wage or the minimum amount to be covered by social security, topped up by tips or payment of undeclared working time.

In **Estonia**, the taxi industry has been and still is low-income. According to the taxi company representative in the focus group discussion in Tallinn (TA-FG-1), it is not possible to have a decent income from working as a taxi driver if all income is declared and taxed: tax avoidance is written into the business model and the grey economy has long been part of Tallinn's taxi industry. Traditional taxi companies are not providing (and usually have not provided) the possibility to be employed as a taxi driver but use a model of (bogus) self-employment when hiring taxi drivers. Taxi drivers usually operate as sole proprietors or through a juridical person, mostly their own small company and through that provide services to bigger taxi companies (e.g., through franchise agreements), often paying employment taxes for themselves only from the minimum amount necessary to get social security coverage. This practice has not been changed with the market entrance of platforms. With the entrance of platforms, "natural persons" increasingly are used as drivers, a practice that is generally not used by traditional taxi companies. In such constellations, drivers often declare their income as random income (if declaring it at all) and pay only income tax without getting any social insurance (as for that you would need to pay also social tax).

As a consequence, not only fewer drivers are paying taxes, but it has also become more difficult for tax authorities to control the taxi drivers for tax avoidance. Another aspect contributing to taxi drivers working undeclared are the exorbitant taxi insurance costs that were introduced by insurance companies after vehicle cards (mandatory for all taxi drivers) had become obligatory. Moreover, taxi drivers have started working for multiple taxi companies and platforms simultaneously and the question of which taxi company can be held responsible for this driver's licences comes up.

The taxi driver's occupation also has changed in terms of de-professionalization: The representative of taxi company (TA-FG-1) argued that few taxi companies train their drivers at all, and definitely this is done less extensively than before (training was mandatory before the changes in the Public Transport Act in 2018, and voluntary now). According to the statistics of the Estonian Motor Insurance Bureau, in 2019 taxis operated via application caused 1,8 times more traffic accidents than traditional taxis, and seven times more than regular cars,⁴⁸ as platform taxi drivers spend more hours on the road, often have their „eyes on the app“ (TA-

⁴⁸ https://www.lkf.ee/sites/default/files/20200304-Taksod_tavasoidukid.pdf?750



FG-1), so they pay less attention to the traffic, and are incentivised to haste, as platforms sometimes offer bonuses for faster or more rides.

In **London**, until the pandemic, black cab taxi drivers were rather able to sustain good working conditions, even as self-employed. Black cab taxi driving is a closed profession and highly regulated. Pricing is flat rate set by the TfL (Transport for London) and does not change frequently (LO-INT-10). This gives drivers a predictable income. However, during the pandemic, both Uber drivers and black cab taxi drivers have been forced to stop working for many months during lock downs. Many Black cab taxi drivers left the market during lockdowns and received the self-employed grant scheme. Interestingly, following the supreme court decision about Uber in March 2021 (Supreme Court, 2021, Case ID: UKSC 2019/0029), stating that Uber drivers were workers employed by the firm rather than self-employed contractors, black cab taxi drivers received a message from one of these platforms asking them if they would be interested in being recognized as workers instead of self-employed (LO-INT-9).

In the mini-cab sector as part of private hire vehicles, labour abuses (wage theft, undeclared work, long working hours) were widespread and common, even before Uber. For many drivers, according to the PLUS field work (Altenried et al., 2021), LO-EX-7) in London, Uber gave an opportunity to be freed from abusive labour relations. Before the Supreme Court ruling in 2021, Uber drivers mainly worked as self-employed. The Economist⁴⁹ reported that from this time onwards, the 70,000 Uber drivers in the UK will be paid at least the minimum wage, get a pension and receive holiday pay. The vast majority of Uber drivers come from the most deprived communities, including migrant and ethnic and religious minority ones and according to the TfL 88% are of Black, Asian and Minority Ethnic (BAME) background, while black-cab drivers are overwhelmingly white, over 88% identifying as white British.⁵⁰ According to the platform workers' representatives (LO-INT-9), black-cab labour unions operate in an environment that is openly "permissive" of racist, anti-migrant and anti-Muslim attitudes and viewpoints and have often used racist tactics against Uber drivers to fight competition.

In **Berlin**, taxi companies usually employ their drivers, but a significant share of drivers also drives self-employed and without a company. While there are tendencies to concentration in the taxi sector, with less companies acquiring larger fleets, the sector is still fragmented into small companies driving self-owned cars (2.500 "Kleinstunternehmen") and rental car companies. Uber drivers in Berlin are mostly employed by rental car companies.

Although some taxi companies pay hourly wages and a minimum hourly wage of EUR 9,50 applies, payment of minimum wage is rare, income is usually commission-based and does not cover waiting times (BE-FG-1). In this sense, working conditions for traditional taxi drivers resemble those of Uber drivers. Within the taxi industry, undeclared work has always been prevalent and this tendency appears to be reproduced in a rather radical manner in the ride-

⁴⁹ <https://www.economist.com/britain/2021/03/18/ubers-workers-benefit-from-a-supreme-court-decision>

⁵⁰ <http://content.tfl.gov.uk/taxi-and-phv-demographic-stats.pdf>



hailing sector. In terms of safety, while no official figures exist on the accident rates of Uber drivers in Berlin or Germany, the issue has been raised both in academia and the public in the US, the United Kingdom and the Netherlands.⁵¹ In Germany, taxi associations frequently criticized the conduct of Uber and emphasized the need for professional training. An increased rate of accidents caused by drivers in the city not only poses a serious health risk to both drivers and customers, it also results in fines that workers had to pay, as was pointed out in (Altenried et al., 2021, p. 75). While the lack of skills by workers and the lack of training by companies and Uber is likely to be the crucial precondition for the issue, the long working hours were likely another reason why accidents occur.

In **Lisbon**, the differences between the taxi sector and platform-based passenger transport become evident in working conditions. The sector of platform-mediated passenger transport is regulated by Law 45/2018 (“*Lei da Uber*”).⁵² This law lays down the terms relating to certain aspects of working conditions, however it leaves much room for unilateral action by platforms. The law establishes the existence of intermediary companies, called TVDE (*Transporte em veículo descaracterizado*),⁵³ which mediate the relationship between worker and platform. For platform-mediated drivers, numerous contract typologies and different labour relations apply: in terms of contracts, self-employment is most widespread between TVDE companies and drivers. Many platform drivers are registered in, at least 2 or 3 digital platforms (multi-homing), but all operate with Uber which is considered by far the most profitable. According to the “*Lei da Uber*”, a maximum of 10 working hours is allowed for drivers working for TVDE companies. However, this limit is mostly formal and not respected at all. Firstly, the law does not indicate what counts as working time: only the time from when the driver picks up the passenger until the end of the ride or the actual working time during which the driver is “logged in” to the platform. Secondly, multi-homing and the subscription to several passenger transport platforms allows the individual driver to extend his working day without limit. Thirdly, inspection of the rules is rare, and the deterrent and penalty mechanisms for the platforms are unclear. Concerning the income of drivers, a full-time worker of TVDE can earn EUR 900, or at least EUR 200 per week, always depending on the amount of time worked. Although overall demand for rides is rising, prices do not rise but are rather decreasing; for this reason, ride hailing is getting less profitable for drivers. Moreover, drivers have to pay fees to the digital platform and TVDE firm, and come up for the car’s insurance cost for TVDE (around EUR 3,000 per year). “*With regard to tariffs and earnings, there is no basic wage or minimum tariff for platform workers, leaving room for market competition on prices and downward competition on labour costs*” (LI-INT-2). The traditional taxi service in Portugal is considered a public service, and a national collective agreement negotiated between the trade union and the employers’ association establishes a basic wage, which is slightly higher than

⁵¹ United States: (Barrios et al., 2019); United Kingdom: <https://www.bbc.com/news/technology-45247655>; Netherlands: <https://www.dutchnews.nl/news/2019/01/dutch-road-safety-organisation-calls-for-tighter-uber-regulation-after-deaths/>;

⁵² <https://dre.pt/application/conteudo/115991688>

⁵³ <https://imt-tvde.webnode.pt/>



the national minimum wage (2021: EUR 665⁵⁴). Furthermore, a service tariff is negotiated between the social partners: government, municipal authority, trade union and employers' associations (ANTRAL).

Traditional taxi drivers in **France** operate under different statutes (Thévenoud, 2014): (1) those who are self-employed under the status of “artisans” (craftsmen), i.e., they own the taxi and the license (ADS, *autorisation de stationnement*);⁵⁵ (2) leaseholders who hire their taxis from companies holding ADSs; (3) those employed by a company; (4) “sociétaires” hold a share in a company organized as a cooperative with licenses; (5) those who are “doubling up” and use one taxi for two shifts (one driver at night, the other one during the day). In addition to traditional taxi drivers, VTC drivers, among them Uber and other platform drivers, provide private passenger transport services.

A study conducted by INSEE⁵⁶ for France compared the economic situation of non-salaried (=self-employed) drivers in private passenger transport to taxi drivers and VTC drivers: at the end of 2016, INSEE counted 7.000 VTC drivers on a self-employed basis who were mostly micro-entrepreneurs⁵⁷ (57%); conversely, 99% of the 24.000 taxi drivers are “classic” self-employed. Taxi drivers earn an average monthly income of EUR 1.230, while VTC drivers earn only EUR 570 per month from their self-employed activity. Three out of ten VTC micro-entrepreneurs have another salaried activity, most often as their main activity. If the salaries of those who have more than one job are taken into account, the overall average income of VTC drivers is EUR 940 per month, still 26% less than the EUR 1.270 earned by taxi drivers. In 2016, 12% of VTC drivers (4% among taxi drivers) declared zero income because they made no profit or paid themselves no remuneration. Uber's and others ride hailing platforms' entry into the market has led to two major consequences for Parisian taxi drivers. On the one hand, in 2014, when Uber actually arrived in Paris, many drivers who had finished their training, were in a waiting loop to work for a taxi company. In that context, “*Uber absorbed a significant part of this reserve workforce*” (PA-INT-1). With the *Grandguillaume* law of 2016 (see section 4.4.4.1) and the merging of taxi and VTC training, drivers can now choose between becoming a VTC or a taxi driver after having completed their training: from 2014 onwards a majority of drivers decided to become VTCs, with peaks of 80% drivers choosing VTC. Hence, the traditional taxi industry loses candidates. As the number of candidates for the purchase of the license has dropped the professional taxi license (ADS) has lost value: Between 2012 and 2014,

⁵⁴ <https://www.pordata.pt/Portugal/Sal%C3%A1rio+m%C3%ADnimo+nacional-74-7892> Currently, this collective agreement is defined as obsolete by the unions, who have been calling for a revision since the beginning of 2020. However, the employers organisation ANTRAL refuses a revision until the next deadline.

⁵⁵ The license is issued by the municipality or city, is limited to that area and is granted for a renewable five-year period. According to (Thévenoud, 2014), this group accounts for half of taxi drivers in France.

⁵⁶ <https://www.insee.fr/fr/statistiques/4470786>

⁵⁷ Micro-entrepreneurship imposes a turnover ceiling, which limits income possibilities compared to that of other self-employed.



the license was worth around EUR 260,000, today it is worth about EUR 120,000.⁵⁸ Moreover, Uber's entry into the market has led to a significant decline in the number of traditional taxis' daily rides. Hence, the waiting time between two taxi rides has greatly increased for taxi drivers. Parisian taxi drivers now work *"up to 14 hours a day in order to make a decent income"* (PA-INT-1). To have more options of income, many taxi drivers have started to work with Uber, either full time or as a supplement to their income. The health crisis linked to Covid-19 has even accentuated these trends: the number of daily rides has further decreased, and more and more Parisian taxi drivers have been forced to multi-homing. Thus, with regard to the social profile of these two groups is quite similar and the boundaries between the two occupational groups are becoming increasingly porous.

4.4.3 Incumbent Company Strategies

The European social partners ETF (European Transport Workers Federation, EU-EX-5) and IRU (International Road Transport Union) see Uber as a disruptive business model that fosters unfair competition. From their point of view, the taxi industry is subject to safety and quality checks and contributes to social security, whereas Uber is eager to avoid any regulatory restrictions. As a consequence, pressure on prices and job losses in the taxi industry are exerted. At the same time, the operations of Uber have led to a discussion about the quality of taxi services and a push for more digital tools used in taxis, allowing customers to book and pay a taxi via an app. Together, already in 2014, the European social partners in road transport issued joint declarations claiming for fair transport and arguing for a level playing field of Uber with the taxi industry.⁵⁹

Uber is the leading global player in ride-hailing and taxi services. In 2019, it was active in 10.000 cities in 71 countries for 111 million monthly active platform customers (Uber, 2020). In the wake of the Covid-19, the number of monthly active platform consumers has declined by 44% to 55 million between 2019 and the second quarter of 2020 and is back to 98 million in the first quarter of 2021. The highest increase in monthly active platform consumers on a year-to-year basis was recorded for the delivery branch, with over 70%. Approximately 3.5 million drivers and couriers used Uber for work during the first quarter 2021, up 4% QoQ but down 22% YoY.⁶⁰ Uber is active in five of our PLUS cities: Berlin, Lisbon, London, Paris and Tallinn. Aside from Tallinn, Uber was the biggest ride-hailing company or among the major operators in the city. The biggest markets for Uber in Europe are London and Paris, while Berlin, Lisbon and Tallinn follow with some distance.

⁵⁸ <https://6-t.co/barometre-licence-taxis-2019/>

⁵⁹ Joint statement ETF_IRU on Uber: <https://www.etf-europe.org/wp-content/uploads/2018/09/ETF-IRU-Taxis-Statement-EN.pdf>

⁶⁰ <https://investor.uber.com/news-events/news/press-release-details/2021/Uber-Announces-Results-for-First-Quarter-2021/>



The entrance of ride-hailing platforms such as Uber had an incisive impact on the taxi industries. To respond to Uber's appearance, incumbents, i.e., traditional taxi enterprises and sole proprietors adopted a couple of strategies, both at business level and lobbying at regulatory level (see section 4.4.4). Business strategies included the introduction of new technologies, the occupation of new niches and the tackling of service quality as well as handling open conflicts with the new entrants.

4.4.3.1 Technology: Digitalisation and green technology

In all cities covered by the PLUS research, the use of digital taxi applications by traditional taxi companies – often already introduced before Uber's entrance – has been fine-tuned and spread. These are useful to better plan and combine rides to reduce waiting time or driving without customers and combine multiple rides when driving in specific destinations. On the customer side, more options for comparing prices and waiting times become available the more taxi companies offer such services. Thus, not only Uber drivers rely on "multi-homing" but also traditional taxi drivers combine the use of different apps. Zhu & Iansiti (2019) observed for the ride-hailing platforms Uber, Didi and Lyft in the US that *"when multi-homing is pervasive on each side of a platform, as it is in ride hailing, it becomes very difficult for a platform to generate a profit from its core business. Uber and Lyft are constantly undercutting each other as they compete for riders and drivers."* Multi-homing becomes more popular, the more rivals – including traditional taxi companies - enter the markets for app-mediated private passenger transport and reduce Uber's and similar platform's competitive advantage. This is even more the case when a level playing field is created in terms of drivers' employment status. Another technology-driven consequence is to subsequently renew the fleet and replace petrol- and diesel-powered vehicles by electric ones.

In **Paris**, Taxi G7 is most popular, many taxi drivers have subscribed to such platforms compensating for the loss of clients and being in direct competition with ride hailing platforms and Uber in particular (PA-INT-1). The same strategy has been adopted in **Tallinn**: widening the app-based scope for clients' possibilities to order a taxi. Some taxi companies have developed common applications, some introduced individual apps. Nevertheless, ride-hailing companies (especially Bolt) still seem to have developed the most successful apps in Tallinn. In **Berlin**, taxi companies and drivers use two applications that have been developed by the taxi industry: the Taxi EU app and the Taxi Deutschland app, which both ask for a fixed amount of money in order to pass on orders through the app. There have also been alternative and grassroots approaches to develop applications, such as the app FairNow in Berlin which was developed by taxi drivers. However, this approach has failed, very likely due to the lack of funding and reach. Moreover, some taxi companies run both a fleet of taxis and 'rental cars' who operate with Uber and FreeNow: taxi and ride-hailing business is not always conducted separately.

In **Lisbon**, according to (LI-INT-1), digital platforms to book taxi journeys were introduced, however only by the largest companies. Moreover, the municipal chamber has made available a subsidy for the renewal of the taxi fleet, which is combined with government subsidies for the purchase of electric cars.



Environmental concerns are also relevant in **London**: Both black cab taxi and private hire drivers are under increasing pressure to turn to new environmentally friendly technologies, i.e. to invest in electric vehicles, that are less damaging for the environment, but much more expensive. Hence, only few workers who can afford to make this transition will be able to remain in the market (LO-INT-12). As in the other cities, also in **London**, applications for black cabs, like Free Now or Hailo, existed before the arrival of Uber in the City and continue to be widely used.

4.4.3.2 Service quality and alternative customers

Another business strategy of taxi operators is to improve service quality and/ or to specialise on specific customers. In **Paris**, for instance, special rides for luxury customers are provided, challenging service quality in terms of drivers' appearance and service attitude. Others have found niche markets to enter. One example is the "seated patient transport" service, which is funded by the social security system and requires for operating the obtainment of a certificate from the health insurance fund.

In **Berlin**, the traditional taxi industry emphasizes to provide a public transport service, as they must offer services at all times and to all passengers at the same price. According to the representative of the taxi guild (BE-FG-1), the Covid-19 crisis offered a chance to be perceived as a useful service infrastructure for the public good, specifically in driving elderly people to vaccination appointments:

"Tasking the taxi industry with driving the elderly or seniors to vaccination now has proven that we can deliver. [...] My point is that logistically we were able to implement that. With a lot of effort. I'm proud that we as the Berlin taxi industry played a part in containing the pandemic by picking people up from the door, we've had experience in that, for decades, with sick and frail people, whom we accompanied, whom we then took to be vaccinated and whom we drove back. That has worked fantastically. We were able to implement something like that at a short notice, 500.000 trips in three months. And that's another proof that what we do and what we've always done is just so taken for granted for the average consumer, like, God knows, electricity, like water from the tap, it's always been there."

Uber itself presents itself not as a replacement of public, including taxi transport in Germany, but as a complementary service. It aims to build its company marketing on the public discourse around e-mobility, which has gained widespread traction in Germany.

An expert from the **Tallinn** Transport Department argued that ride hailing introduced new and better taxi standards for customers and due to increased competition, services have become more comfortable, simple and accessible. He concluded that *"I do not see any negative aspects related to the ridesharing. People [=clients] win."* (TA-EX-4). However, the impact of platforms may have turned out ambiguous in terms of quality: while in the first place the quality of service indeed increased, as new drivers and more competition came into market, now with Bolt dominating the market, it has started to decrease again. More competition is no guarant for better service and quality.



In **Lisbon**, where the traditional taxi service is treated as a public transportation service as in Berlin, one strategy by the municipal chamber is to improve service quality by providing better training for drivers. In Portugal, public authorities identify the tourism sector as key for the national economy. Hence, initiatives have been taken to provide foreign language courses - mainly English – and courses aimed at giving taxi drivers basic knowledge of the city's historical sites and monuments. (LI-INT-1)).

Moreover, Lisbon is perceived as an excellence centre for Uber and a laboratory for new strategies. During the COVID-19 period, the Uber system registered two important changes in Lisbon: (1) Uber's departure from the micro-mobility sector (two-wheels-scooters and electric bikes) in favour of Lime; and (2) the introduction of the Uber Connect service where the bigger TVDEs make direct agreements with supermarkets to deliver food. Hence, Uber drivers compete with other delivery and distribution companies, and thus accentuate the Uber commitment in the logistics field (Altenried et al., 2021, pp. 54, Lisbon City Report).

4.4.3.3 Open conflicts

A third strategy to cope with platforms intruding the taxi market is open conflict and a fight for the imposition of new rules (see next section 4.4.4). In **Paris**, taxis' resistance and struggles against Uber are linked to fears of downgrading and the disappearance of the profession, to losing privileges and being exposed to fierce and ruinous competition. Not least the protest of taxi drivers has hindered the deregulation of the maximum number of taxi licenses in circulation (*numerus clausus*). At the same time, concessions have been made ending up in the *Grandguillaume* law and in terms of individual strategies such as multi-homing. This also gave rise to divisions within the professional group of taxi drivers between those who are "willing to make concessions" and those who are strictly opposing liberalization policies in the private transportation sector.

In **Berlin and Germany**, the taxi industry realised the economic threat of Uber from very early on and has supported lawsuits in numerous cities against Uber. As a consequence of successful lawsuits, Uber was forced to integrate their business into the model of the 'rental car business' through subsidiary companies. Moreover, direct and visible protest against Uber was launched: Drivers have organised large-scale demonstrations at airports in Berlin in 2019 to protest against the lack of regulation against Uber.

In **Lisbon**, in September 2018, the taxi drivers went on strike against the "*Lei da Uber*". The main motivation put forward was that this law leads to two fiscal and legal regimes for one service (the "*transporte de passageiros em viaturas ligeiras*" - passenger transport in passenger cars) and unfair competition, due to digital platforms' higher flexibility in terms of prices and fleet size.⁶¹

⁶¹ <https://zap.aeiou.pt/taxistas-protesto-lisboa-porto-faro-218846> ; <https://www.publico.pt/2018/09/26/sociedade/noticia/taxis-ps-propoe-passar-para-autarquias-regulamentacao-do-transporte-de-passageiros-1845393>



In **London**, one of the main points of antagonism between black cab taxi drivers and platforms is the question of hailing. Black cab taxi drivers' unions claim that platforms are breaching the regulation that allows only them to show their availability and be hailed by passengers on the road. In July 2018, the Licensed Taxi Drivers Association (LTDA) prepared to take class action for alleged loss of earnings suffered by its members, arguing that 25.000 black cab drivers suffered lost earnings of £10.000 a year. After the appeal, however, Uber won a 15-month extension to its license to keep operating in London. In September 2018, the LTDA planned a protest to bring the city into a standstill and later took unsuccessful class action arguing that Uber drivers were using a smartphone app to calculate fares despite it being illegal for private vehicles.⁶² Finally, in March 2021, the Supreme Court decided about Uber drivers being workers employed by Uber instead of self-employed, establishing an important standard for Uber's business model.

4.4.4 Regulation and enforcement

Uber's strategy is to sidestep municipal rules that limit the entry of taxi services. The company has also seized the opportunity offered by its platform to avoid taxes and rules governing minimum wages or hours of work. Tomassetti (2016, p. 17) impressively picked the "Uber narrative" into pieces that had insinuated that Uber does nothing else than developing software for matching riders and drivers, simplifying payment procedures and borrowing its name for marketing efforts; in a nutshell, Uber argues to optimize market exchange by lowering transaction costs and the traditional (passenger transport) firm is becoming obsolete when the internet and internet-based applications take over. To circumvent industry regulations, Uber argued in court proceedings that they need to be subsumed in a different line of business than the drivers they contract out. Until the ECJ verdict⁶³ in 2017, Uber claimed to be an "information society service provider" intermediating transport services. The ECJ ruled that UBER must be classified as a "service in the field of transport" instead, as Uber in return for payment uses a smartphone application to put non-professional drivers using their own vehicle in contact with people wishing to make an urban journey *"to whom the company provides an application without which (1) those drivers would not be led to provide transport services and (2) persons who wish to make an urban journey would not use the services provided by those drivers"*. Moreover, the ECJ observed that Uber exercises decisive influence over the conditions under which that service is provided by drivers, including determining a maximum fare, control of the payment process and over the quality of the vehicles, the drivers and their conduct. As a consequence, Member States are free to regulate the conditions under which services such as Uber are to be provided. Therefore, all PLUS cities

⁶² BBC (2018) "Uber versus black cabs: Why are they arguing?", available at: <https://www.bbc.com/news/av/technology-27733967>

⁶³ Case C-434/15, Asociación Profesional Elite Taxi vs Uber Systems Spain SL, <https://curia.europa.eu/juris/document/document.jsf?docid=198047&text=&dir=&doclang=DE&part=1&occ=first&mode=lst&pageIndex=0&cid=14733378>



introduced new regulations which on the one hand regulated Uber's access to the taxi market and on the other hand liberalized it.

Hence, there is a great debate about whether and how ride-sharing companies and the private passenger transport industry should be regulated. Ride-sharing companies deploy different price mechanisms, based on an automatic price allocation algorithm. The traditional taxi industry uses fixed and regulated fares. Often taxi drivers must pay fees for licensing and there is restricted access to the taxi market, as the number of taxis or taxi permits allowed to operate in a city is limited through quotas to protect the taxi industry from competition (Reid-Musson et al., 2020). As is indicated in the Paris example, the system of licensing quotas created a secondary quite volatile market in taxi licenses that exacerbated economic hierarchies and dependencies between drivers and fleet owners. Hence, municipal licensing regimes also impact negatively on drivers' economic situation. And drivers working for ride-sharing companies have freer access to the private passenger market than taxi drivers who operate in a protected market, where access is restricted and costly. Hence, the call for reforms comes from two sides: on the one hand, some taxi drivers want the regulations that apply to them partly removed; on the other hand, they want new regulations that apply for ride-sharing drivers (Esbenshade & Shifrin, 2019). The outcome, as in Paris, is often a compromise that nevertheless impacts greatly on the whole private passenger industry.

One struggle that lease drivers and ride-share drivers have in common, as Esbenshade and Shifrin (2019) put it, is challenging misclassification of the labour relation. While the struggle is common, the solutions proposed are not. Esbenshade & Shifrin (2019) argue for the US for the introduction of a new employment category, as drivers often work for multiple companies and platforms (multi-homing) and *"do not fit the old U.S. binary between employees and independent contractors"*. Other scholars, such as David Weil (Weil, 2019; Weil & Goldman, 2016), asserts that many of the issues raised by on-demand business models arise also in other parts of the economy, labelled as the *"fissured workplace"*: Firms benefit from work that is outsourced but executed in strict compliance with central corporate objectives. Hence, he insists that *"the employment relationship remains critical to the maintenance of labor standards. The erosion of labor standards leads to wage stagnation, dead-end jobs with no upward mobility, underinvestment in training, lack of access to benefits and protections, and diminished workplace health and safety"* (Weil & Goldman, 2016, p. 29). If Uber is to be classified as an employer is still in limbo. According to Aloisi (2020), firms such as *Uber*, are situated between hierarchies and markets as they rely on ICT-enabled outsourcing and deregulation. They portray themselves a *"hybrid"* form of a firm often used to avoid the obligations and costs associated with employment status. As was pointed out in the PLUS report on legislation (Tullini & Donini, 2019), when the digital platform has relevant organisational power over the services developed by workers, it creates a business that forms *"an integral part of an overall service"*. This kind of service is also relevant for the labour regulation.

In the PLUS cities, London, Paris and Tallinn, drivers worked as self-employed freelancers or privately (for the period of empirical investigation: October 2019 to October 2020; legislation is changing quickly, as was the case with UK's supreme court ruling). Workers drive with their



own car (often bought through a loan) or with rental cars. Drivers who were working by the side or on a part-time basis were often insured by their main employers. Some drivers in Berlin and Lisbon were also working as self-employed drivers but this model was rare and usually just the first step of managing a sub-company. In Berlin and Lisbon, most workers are employed by sub-companies (Mietwagenunternehmer in Germany, TVDE in Portugal). To a smaller extent (this is also the case in Paris) drivers can be employed by so-called *capacitaires*. (Altenried et al., 2021, p. 52).

In the following, we present industry regulations for private passenger transport in the five PLUS cities where traditional and platform-mediated taxi services were explored (for an overview see *Table 11. Overview of regulations in place for private passenger transport services*).

4.4.4.1 Industry regulation in France and Paris: “liberalization alongside the profession”

In **France**, a distinction has been historically made between the *grande remise* (pre-ordered passenger transport activities) and taxis. From 2009 onwards, the regulatory framework⁶⁴ for the private passenger transport sector has been modernised: the 2009 law on the development and modernization of tourism services (*Novelli law*⁶⁵) created the VTC (*voitures de transport avec chauffeur*) status as part of a process of liberalisation of the sector (Chagny, 2019). The *Grandguillaume law* from 2016 (in force since April 2018) makes it compulsory for VTCs to be registered in a specific register of VTC operators and to hold a professional card. The *Grandguillaume law* is a federal legislation. At municipal level, quotas and fares are specified.

Main regulatory differences between taxis and VTC are: Being active as a traditional taxi is linked to a taxi license and regulated by a *numerus clausus* (a quota). They are obliged to pick up passengers as part of a public service. Taxis have a parking permit (ADS) linked to the vehicle on a given territory, and have a monopoly on hailing and pick-up in dedicated ranks. They can also drive on bus lanes and benefit from a tax exemption on fuel. Taxis are subject to specific fare rules; in Paris, the prices of the taxi rides are calculated according to the zone and the time of day.

Unlike taxis, VTCs are not obliged to pick up passengers, they have a maximum fare they need to comply with and can only operate in a specific area. With Uber and other ride hailing platforms, the algorithm sets the fares depending to the distance, the area, but also depending to the traffic jam. There are no supply-side quotas (*numerus clausus*) or regulated fares. However, they are not allowed to hail and they do not have reserved parking areas. Their access to customers is exclusively by prior reservation via dedicated platforms.

⁶⁴ <https://www.insee.fr/fr/statistiques/4470786#onglet-2>

⁶⁵ <https://www.vie-publique.fr/sites/default/files/rapport/pdf/084000041.pdf>



The *Grandguillaume* law introduced common rules for all operators of the private passenger transport sector under 3.5 tons (taxis, VTCs, ambulances, motorised two- and three-wheelers). The law especially introduced a “common core” section in the exam to obtain a license for taxis and VTCs and made the possession of a VTC (*voiture de transport avec chauffeur*) license compulsory in order to work with ride-hailing platforms, introducing for the first time an actual entry barrier to the ride-hailing sector. The aim of the law was to merge, at least partially, the VTC and taxi driver professions, but without succeeding in completely deregulating the taxi market. Rather, as said by an expert we have interviewed, what has happened is a “liberalization alongside the profession” (PA-INT-1): the rules governing taxi activity have remained in place, in particular the limited number of taxis (*numerus clausus*) and the collective regulation of fares, but a new sector has been built alongside the profession (VTC), “making the protections that still govern the profession of driver meaningless” (Lejeune, 2020).

4.4.4.2 Industry regulation in London: black cabs vs ride-hailing

In **London**, industry regulations are imposed at city level by *Transport of London* (TfL). On the one hand, black cab taxi driving is a closed profession, as the number of licenses issued each year by the TfL is limited to approximately 1,000. To get a license, black cab drivers need to pass a difficult and demanding examination. They also undergo a background check and regular health checks. When drivers have passed the test, they are given a license to drive and park in specific zones but can accept any ride including rides outside the city. An automated system of pricing is installed in the taxi meter of all black cabs. Pricing is flat rate set by the TfL and does not change frequently (LO-INT-10). Customers are informed about this flat rate by a card which is placed at the rear of the vehicle.

On the other hand, ride-hailing platform drivers such as Uber are subject to regulations for “private hire vehicles”. For operating a private hire vehicle, they need different licenses, for the vehicle, as a driver and as an operator. One of the main conflict points between black cab taxi drivers and platforms is the question of hailing. Principally, private hire drivers are not allowed to pick up passengers from the road, but rides have to be prebooked. Black cab taxi drivers’ unions claim that platforms are breaching the regulation that allows only them to show their availability and be hailed by passengers on the road. Although platforms do not show their availability on the street, they do a form of hailing online as the app shows how many vehicles are in proximity and can reach passengers immediately. In that sense, one of the interviewees in London argued, they are not prebooked but immediately hired (LO-INT-12). Another major issue regarding regulation is passengers’ safety in platform-based ride hailing. The TfL can withdraw the license to operate if they identify a lack of safety guarantees. So did the TfL in 2019 with Uber. More specifically, a report by TfL claimed that Uber failed to adequately verify drivers’ identities and safeguard the service and safety for passengers.⁶⁶

⁶⁶ “Uber London Limited found to be not fit and proper to hold a private hire operator licence”, Transport for London, November 2019, <https://tfl.gov.uk/info-for/media/press-releases/2019/november/uber-london-limited-found-to-be-not-fit-and-proper-to-hold-a-private-hire-operator-licence>



Another difference between black cab drivers and platform drivers is that the latter have to pay a congestion charge, when they drive in specific areas of the city at specific times to compensate for the environmental impact of their work. The congestion charge was a response by local authorities of the platform boom in ride-hailing, the increased traffic and rising levels of air and noise pollution in London. As Black cab taxi drivers are exempt from this charge, the Uber drivers' Unions moaned about the favouritism that TfL shows towards black cab taxi drivers. To conclude, London has a two-tier regulatory regime in the taxi industry. Black cabs taxi drivers still operate in a closed market, shielded – at least partly – from competition due to specific privileges but also regulatory impositions in place for them. Up until now, no concessions were made to deregulate the trade. Ride-hailing, on the other hand, has replaced mini cab riding as a low-cost alternative in private passenger transport. While it is subject to less strict rules concerning pricing and training, safety standards are strict, and it has less a less privileged position than the black cab part of the industry. An important impact to Uber's position in the taxi market also came from another direction: a supreme court verdict stated that Uber cannot rely on self-employed workers anymore, but has to grant the drivers the status of workers coming along with certain benefits the drivers did not have before this court decision.

4.4.4.3 Industry regulation in Estonia and Tallinn: mostly common rules, rare compliance

In Estonia, the only sector that has been re-regulated due to the impact of platform work is public transport including the provision of taxi services. Compared to the other PLUS cities, the taxi industry in Tallinn was rather lightly regulated before the market entrance of platform taxis. The Public Transport Act (in force since November 2017) unified most requirements for traditional and platform-based taxis. From the perspective of traditional taxis, regulations loosened, e.g., regarding language and training requirements, while (in contrast to platform taxis) they still have to be equipped with a taximeter, printer, printed price list, and an illuminated sign. Traditional taxis can pick up passengers from a taxi stop and may use the lanes for public transport. Furthermore, Tallinn has established some local rules, that can only be extended to traditional taxis (without the intermediation of an information society service), including maximum prices for rides⁶⁷ and requirement to have less-polluting car.⁶⁸

⁶⁷ According to the Public Transport Act, additional regulations may include: (a) the form of the price list of taxi services, thereby distinguishing between the journey commencement fee, the fare per km or the time-based fee; (b) the maximum permitted level of the journey commencement fee, fare per km and time-based fee, thereby taking into account that the carrier must be able to bear the direct costs relating to the provided service, the capital costs and a proportion of its overheads as well as make at least a reasonable operating profit; (c) the list of services for which a price may be established, thereby it is permitted to distinguish between daytime and night time services or based on some other time criterion

⁶⁸ <https://www.riigiteataja.ee/akt/429102015031>



To provide private passenger transport services, a taxi license,⁶⁹ a service provider card and a vehicle card must be obtained from the rural municipality government / city government or an agency authorised by the rural municipality government / city government where the driver wishes to provide taxi services. The requirements and procedure are the same across Estonia. Although the amendments in the Public Transport Act erased the explicit reference to language requirements for taxi drivers, according to the Language Act, all drivers of public transport vehicles have to be proficient in Estonian at least B1 level. While the authority in charge in Tallinn, MUPO (the Tallinn Municipal Police Department), does not have the competence to control language level of taxi drivers, they have refused to issue the service provider card if the applicant was not even able to express themselves at the elementary level when turning to MUPO. However, this practice seems to be currently illegal.⁷⁰

Regarding dynamic pricing (in areas with high demand for rides, high prices are charged; in those with less demand, prices are low) that platforms use, traditional taxis are basically not allowed to use it, as local municipality set the upper price limit for taxis with taximeters. That puts traditional taxi companies in a disadvantageous position compared to platforms. Not only traditional taxi operators protested against dynamic pricing. Platform drivers claimed that such policy would decrease their income by 30%; those who rent the car from the platform would be in the worst position, as they had to pay rent and were obliged to mandatory rides. To earn enough to pay the rent, drivers would have needed to do 100 rides per week (70-80 hours).⁷¹

A major problem, according to the focus group participants in Tallinn, is compliance with and inspection of the existing rules. While extensive control is exercised over traditional taxi companies, it is difficult to inspect platform taxis, including if platform taxi services are provided legally and taxi drivers hold both service provider card and vehicle card. Controlling platform taxi drivers is complicated for several reasons: First, it is difficult to distinguish platform taxis from regular cars, as the former is not obliged to indicate visually if the car is used for providing taxi services. Second, legislation does not provide effective means for controlling platform taxis, the inspecting authority MUPO does not have a right to stop private cars for control purposes. A recent decision by the Supreme Court of Estonia⁷² dismissed MUPO's tactics to target and then inspect platform taxi drivers by booking a taxi via the mobile app. At the same time, the court concluded that the current legislation does not

⁶⁹ <https://www.uber.com/et-EE/drive/requirements/>

⁷⁰ <https://tehnika.postimees.ee/6681315/haige-olukord-tallinnas-umbkeelsete-taksojuhtide-pealetung>

⁷¹ <https://arileht.delfi.ee/news/uudised/fotod-ja-video-sadakond-taxify-juhti-streigivad-uae-hinnapoliitika-vastu-me-oleme-nagu-taksoahvid-kes-tootavad-end-iga-nadal-miinusesse-et-taxify-void?id=80920773>

⁷² <https://www.riigikohus.ee/et/uudiste-arhiiv/riigikohus-seadus-ei-luba-mobiilirakenduse-abil-taksosid-kontrollida>



provide a possibility to effectively control platform taxi drivers and a change in the legislation would be needed to enable the control activities.

4.4.4.4 Industry regulation in Germany and Berlin: rental car – the intermediary solution

The operation of taxis as well as ride-hailing (*Mietwagen* – rental car) is both regulated in the Passenger Transportation Act (*Personenbeförderungsgesetz*) from 1961, which has been modified several times since and was subject to a large-scale amendment process in 2020 and 2021. Taxi company representatives have been part of the deliberation process which resulted in some changes in their interest: Ride-hailing drivers must return to their company offices before taking on the next order and are not allowed to wait somewhere for a new client. Moreover, rental car companies are obliged to document their driving activity, and have to install (for newly registered rental cars) a so-called odometer (*Wegstreckenzähler*). Taxis use a “*Fiskaltaxameter*” and data recorded on working hours, performed rides, earned money is directly transferred to tax authorities. In addition, taxi drivers are subject to various legal constraints, such as the “*Betriebspflicht*” (the duty to provide the service, covering all days, the whole city and all hours), the “*Tarifpflicht*” (the obligation to charge fixed prices based solely on the length of the route) and the “*Beförderungspflicht*” (the obligation to accept every rider, without discrimination). They claim to be disadvantaged in comparison with Uber drivers, who do not have to attain to these rules (BE-EX-2).

In Berlin, as part of public transport, the taxi business is subject to regulation concerning the number of vehicles per city as well as the qualification of drivers and the price of fares. In Berlin, such regulation and licensing are conducted by the city administration (*Landesamt für Bürger- und Ordnungsangelegenheiten*). Part of the regulation foresees drivers to go through a longer process of training to obtain a taxi license. The representative from the Berlin taxi guild (BE-FG-1) emphasized that the pressure to comply with existing regulation is different for each municipality. In Berlin, breaches of existing law are not prosecuted harshly and continue to exist, while the administration in cities such as Hamburg is enforcing the law more strictly.

4.4.4.5 Industry regulation in Portugal and Lisbon: TVDE – the other intermediary solution

In Portugal, the main difference that distinguishes the traditional taxi sector from that of the service intermediated by digital platforms is the former considered as a public service, while the latter is not. The taxi sector is regulated by the municipality and working conditions are regulated by a national collective agreement (see section 4.4.2). The municipal administration has control over pricing and quotas. The relationship between the passenger transport platforms and the government is maintained by the IMT (*Instituto da Mobilidade e dos Transportes - Institute for Mobility and Transport*), whose work, however, is not very well known. In 2018, the so-called *Lei da Uber* (Law 45/2018) introduced the category of TVDE (*Transporte em veículo descaracterizado*) placed between the platform drivers and the platform. Though, the private passenger sector has been regulated by the adoption of the *Lei da Uber* (Law 45/2018), the consequences of this legislation are heavily contested, and changes are likely to follow. Recently, the main Portuguese trade union CGTP installed an “internal platform drivers’ commission” and started to organize all urban transport and



tramway workers, including taxi workers. It proclaimed a series of demands directed at both the government and local authorities to better regulate the TVDE business. First of all, there is the demand for minimum fares in order to weaken platform companies' power to decide over fares, and above all, to remove the dynamic prices set by Uber. Currently, the debate is focusing on the possibility to combine the tariff system with a guaranteed wage (LI-INT-2). Secondly, mechanisms to strengthen inspection of the sector by central authorities were requested. Especially, workers claim that the labour inspectorate must ensure that the maximum working hours per day are complied with by TVDE. In addition, given the substantial cost of insurance (car insurance, third party liability insurance, personal accident insurance) for TVDE drivers⁷³, one of the demands concerns the elimination of the monopoly of insurance companies. With the establishment of TVDE companies these costs have increased. Based on this, one of the interviewees in Lisbon pointed out that *"the addition of this intermediate level [by Law 45/29018] did not result in the expansion of protections, leading, instead, to an increase in costs"* (LI-INT-2). Finally, the claims to the municipal authorities require the definition of a maximum number of cars in circulation and the establishment of collection and release points for passengers.⁷⁴

City	Operating as a platform-mediated driver	Operating in traditional taxi services
Berlin	Passenger Transportation Act <ul style="list-style-type: none"> - passenger transport license (Kleiner Personenbeförderungsschein): eye test, concentration test; 240 EUR - drivers are employed by rental car company or drive self-employed if they are in possession of a taxi license ("Großer Personenbeförderungsschein") - rental cars are obliged to return to the company after completing a passenger transport - no permission to pick up passengers on the road - algorithmic pricing 	Passenger Transportation Act, specific municipal regulations imposed by Landesamt für Bürger- und Ordnungsangelegenheiten (LaBO) <ul style="list-style-type: none"> - taxi license ("großer Personenbeförderungsschein") and training as a taxi driver - maximum number of vehicles per city in circulation according to market demand - price of fares is set - "Betriebspflicht" (the duty to provide the service, covering all days, the whole city and all hours) - "Tarifpflicht" (meaning the obligation to charge fixed prices based solely on the length of the route) and the - "Beförderungspflicht" (the obligation to accept every rider, without discriminations of any sort).
Lisbon	"Lei da Uber" (Law 45/2018) sets the legal framework for the 4 private transport digital platforms that operate in Portugal (Uber, Bolt, FreeNow, Its my ride, Vemja, Bora, Tazzi, Klipper, Chofer, Mobiz)	Passenger Transport <ul style="list-style-type: none"> - Taxi services are regarded as a public service regulated by the municipality - service tariff

⁷³ The cost of insurance for a TVDE driver with sole proprietorship is between EUR 1,500 and 2,500 per year.

⁷⁴ "TVDE – Transporte em Veículo Descaracterizado a partir de Plataforma Electrónica. Caderno Reivindicativo", November 6, 2020, [http://www.fectrans.pt/images/informacao/Acordos/TVDE/20201106 - Caderno Reivindicativo TVDE.pdf](http://www.fectrans.pt/images/informacao/Acordos/TVDE/20201106_-_Caderno_Reivindicativo_TVDE.pdf); "Motoristas TVDE apresentam caderno reivindicativo", April 5 2020, <https://www.abrilabril.pt/trabalho/motoristas-tvde-apresentam-caderno-reivindicativo>



	<ul style="list-style-type: none"> - TVDE Certificate: attendance of a 3 days in-person class and 25 hours online classes (communications and interpersonal relations technique, driving test and the knowledge of the legal framework, first aid and safety notions); 200 EUR, taxi insurance, issued by the IMT (Instituto de Mobilidade e dos Transportes), to be renewed after 5 years, holder of a driver licence (cat. B) for at least 3 years; - “Operador de Plataforma Eletrónica TVDE” must possess an operator licence (10 year validity) - Algorithmic pricing 	<ul style="list-style-type: none"> - quotas of taxis in circulation - taxis have to pay an extra fee when providing services outside the municipality - privilege to stop in specific areas (for example near the airport) - taxi drivers are allowed to drive along the reserved bus lanes
London	<p>Licenses issued by Transport for London for</p> <ul style="list-style-type: none"> - Private Hire Vehicle - Private Hire Driver (£600) - Private Hire Operator License - Subject to congestion charge - PHS are not allowed to hail on the road - Since March 2021, drivers need to be classified as workers when working for a platform - Algorithmic pricing 	<p>Licenses issued by Transport for London for</p> <ul style="list-style-type: none"> - (Black cab) Taxi driver - (Black cab) Taxi driver vehicle - Regular health checks of taxi drivers - Hailing on the road - Limited number of black cab taxi licenses in circulation (approximately 1,000) - Fixed fares set by the TfL and automated system of pricing installed in the taxi meter - Black cabs are allowed to drive and park in specific zones and can accept any ride including rides outside London
Paris	<p>Grandguillaume law</p> <ul style="list-style-type: none"> - VTC (voiture de transport avec chauffeur) Licence: theoretical and practical test (up to 1,500 EUR, must be renewed every 5 years) - VTCs are not obliged to pick up passengers on the road - VTCs have only a maximum fare and may operate only in a specific area - No access to reserved parking areas - access to customers only by prior reservation via dedicated platforms - algorithmic pricing 	<p>Novelli law, Thévenoud law, Grandguillaume law, municipal regulations</p> <ul style="list-style-type: none"> - Taxis have a parking permit (ADS) linked to the vehicle on a given territory - Taxis have a monopoly on hailing and pick-up - Taxis can drive on bus lanes - tax exemption on fuel. - Fares are fixed and prices of the rides calculated according to the zone and the time of day - limited number of taxi licenses in circulation (“numerus clausus”)
Tallinn	<p>Public Transport Act</p> <ul style="list-style-type: none"> - Service provider card for ride-hailing services - Vehicle Card for ride-hailing services - Taxi service operating license for ride-hailing services - Taxi insurance for private vehicles - algorithmic pricing 	<p>Public Transport Act, municipal regulations</p> <ul style="list-style-type: none"> - Service provider card for traditional taxi services - Vehicle Card for traditional taxi services - Taxi service operating license for traditional taxi services - Taxis need to have taximeter, printer, illuminated sign, price list, trademark - maximum prices for rides - requirement to have less-polluting car - Taxi insurance for traditional taxis

Table 11. Overview of regulations in place for private passenger transport services



4.4.5 City policies: from public service to “mobility of the future”

In many cities, notably in Lisbon, debates around the liberalisation of the taxi trade and the entrance of new passenger transport service providers, also have to do with how mobility in cities is to be organised in the future.

Uber presented itself as a sustainable option in city transport which reduces the need for privately owned cars and reduces congestion. Evidence shows that this is not always the case. Rather, Uber tends to attract users who either previously walked, biked, or used public transport, not people who own cars. In this sense, it actually increases the number of cars in the city⁷⁵ and acts as a competitor to public transport services and not to private cars. Lisbon is an interesting example of how Uber has blended into urban development policies and impacted on strategies of urban planners.

In Lisbon, where the level of satisfaction with public transport is lowest compared to all other PLUS cities (see Figure 40), Uber and similar platforms as well as the abundant availability of services by micro-mobility companies (app-based bicycle and scooter rent) were not so much in competition but in addition to affordable transport in Lisbon.

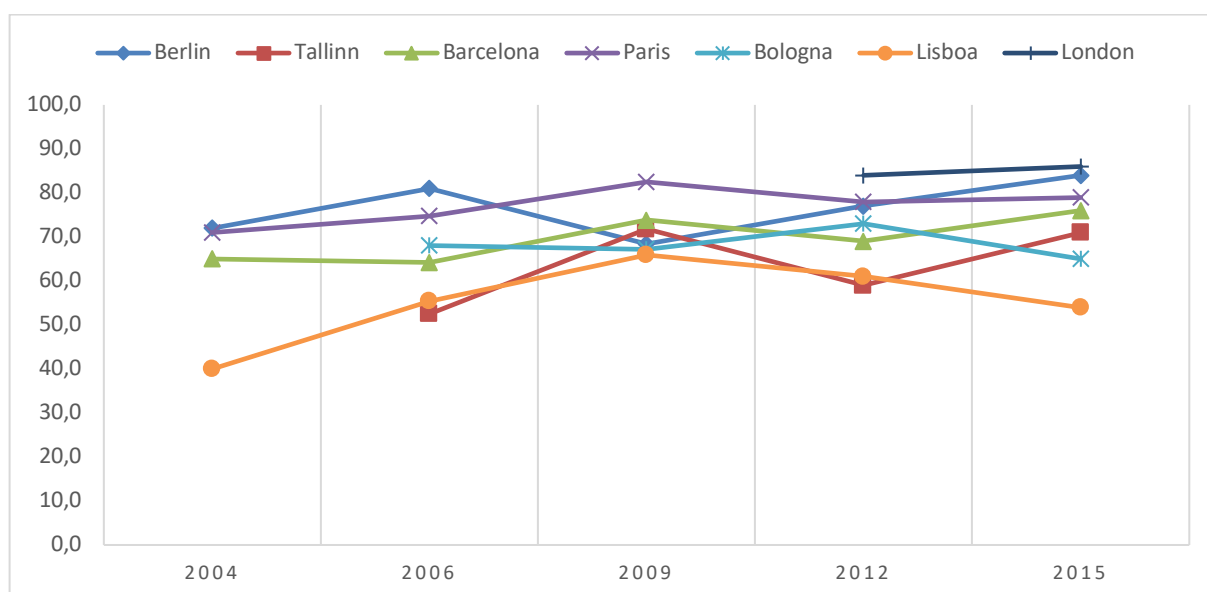


Figure 40. Percentage of individuals satisfied with public transport (Source: Eurostat Perception Survey⁷⁶)

The greater flexibility compared to taxis in terms of intermunicipal transport, the willingness of Uber to reach any district at night, even those where taxi drivers refuse to go beyond a certain time, is seen favourably and an improvement of mobility, both with regard to nightlife,

⁷⁵ <https://www.theverge.com/2019/5/8/18535627/uber-lyft-sf-traffic-congestion-increase-study>

⁷⁶ <https://ec.europa.eu/eurostat/web/cities/perception-surveys>



as well as with regard to labour and daylife travels between the centre of Lisbon and the suburbs. As a side effect, the municipal government in Lisbon has redefined its public transport policies in recent years, on the one hand by investments into the infrastructure, on the other hand by simplifying and reducing public transport fares throughout the metropolitan area. *“The philosophy of the municipal chamber is as follows: public service is the backbone of mobility in the Lisbon metropolitan area. Services provided by private companies play a complementary role. It is on this basis that we are working towards the integration of all these services”* (LI-INT-1).

Moreover, public transport is now being integrated with taxis, platform transport and micro-mobility platforms. In this way, the municipal government wants all these services to be integrated into a single digital application, from which it will be possible to book a ride in any of the platform operators or in a taxi, buy a single ticket or a pass for public transport or access micro-mobility. For public transport, including taxi services, no negative consequences are expected according to an official of the Municipal Department of Mobility, Safety, Economy and Innovation (LI-INT-1), as he expects a rise in demand that will affect all transport modes, rather a specialisation of each service will take place.

Another aspect concerns the collection of mobility data, data use and sharing data and the question of who is the owner of the data. The representative of the ETF (EU-EX-5) refers to the development of so-called “MaaS” i.e. platforms providing mobility as a service, as in Lisbon. The idea behind that is to create single apps which include all mobility services, showing the different possibilities of going from points A to B, including Uber for example. While this sounds as a practicable solution, the question of ownership of the app-data becomes crucial. If the app is privately run, there is the risk of creating monopolies such as is the case with Airbnb or Booking. If all transport users rely on one app to organise their transport, app owners could put negative pressure on prices. Hence, publicly run apps are preferable. Again referring to the “Lisbon lab”, a memorandum between the municipal government and micro-mobility companies (scooters, bicycles) for data sharing exists, despite its general terms are not known and there are differing opinions as to whether it actually works. However, what is certain, confirmed by one of our interviewees, is that this protocol and the data shared between companies and public authorities, are mainly used for the municipality to plan urban mobility, cycle development and traffic management. What remains a big question is, if and how micro-mobility companies (who in many cases belong to the same corporate groups that operate in passenger transport and food delivery) use this direct link to local government to intervene in these related sectors (ride-hailing and delivery) and influence policies in their interest.

4.4.6 Conclusions: Uber and Private Passenger Transport

The entrance of platforms like Uber has had high sectoral impact, in terms of employment and trade regulation and in some cities, notably in Lisbon and Tallinn, high urban impact in terms of improved private passenger mobility.

In all PLUS cities, where Uber and private passenger transport was explored, platform companies posed a big competitive challenge to traditional taxi companies. From an



incumbent perspective, Uber and the ride-hailing business are perceived as a major competitor and are putting pressure to deregulate the industry. With Covid-19, the situation for taxi drivers and companies has even worsened as due to closures and lock-downs, tourism and mobility in general collapsed.

Platform companies' intruding has had positive and negative impacts on the taxi industry. As for the positive impacts, traditional taxi companies were incentivised to modernise their fleet and operating systems – be it in terms of internet-based ride booking systems or green technology. Moreover, overall taxi supply for customers increased. The taxi trade in all PLUS cities is a closed profession, often subject to quota and fixed fares. The quota system is not always to the benefit of taxi drivers. Those who are “in” do have advantages as competitors are limited. Those “outside” need to bear considerable costs to enter. Platform-mediated businesses have opened up possibilities for taxi drivers to circumvent this closed system or to supplement it by subscribing to a platform. Multi-homing has become widespread also among traditional taxi drivers. According to (Drahokoupil & Piasna, 2017), platforms clearly expand labour supply and lower barriers of entry to the labour market for formerly excluded groups and, in passenger transport, to a protected trade. However, given weak or lacking minimum standards for prices and remuneration, for quality and safety in place in platform-mediated passenger transport, increased competition is putting downward pressure on pay and working conditions.

Hence, on the downside, dynamic pricing established by platforms and in stark contrast to the fixed-fare system in traditional taxi trade is perceived disruptive not only from the perspective of traditional taxi drivers and operators but also from the perspective of platform drivers themselves. Explicitly, in Tallinn and Lisbon, the system of dynamic pricing is heavily criticised and platform workers claim to replace it by a price system that is more predictable and less ruinously competitive.

Not least the ECJ's ruling according to that Uber must be classified as transport service and is not an information society service prepared the ground for incorporating platform-mediated transport services into municipal and national regulation leading to a more or less pronounced two-tier system in private passenger transportation. Policies are oscillating between the willingness to protect the taxi industry as a worthwhile part of public transport and an approach towards deregulation and liberalisation of the trade. (New) sectoral regulations encompass the access to the profession by introducing formal requirements to provide ride hailing services ranging from the obligation to registration, to recording driving and working time, to training. At the same time, rules governing the traditional taxi trade have stayed in place. What has remained the main difference from a regulatory perspective in all cities between platform-mediated and traditional taxi services is price regulation for the latter.

In Lisbon, Berlin and London, traditional taxi services are more protected, however also exposed to competition from ride-hailing, while in Tallinn and Paris common legislation (Public Transport Act, *Grandguillaume* law) was introduced making the two modes of providing private passenger transport more permeable in terms of training and access to the profession.



In Berlin and Lisbon, by allowing or introducing a new or updated category of urban road passenger transport, next to taxi and bus services, namely ride hailing, municipalities both de- and reregulated urban road passenger transport. On the one hand, higher professional standards in place in the taxi trade are levelled down by allowing ride hailing companies to offer an equivalent with less formal training and requirements to offer taxi services, but cheaper alternative to traditional taxi rides. On the other hand, Uber drivers have become subject to some formal requirements: they are required to apply for a chargeable ride-hailing license issued by municipalities that also includes some formal training (medical test, map reading, language test, road safety etc.).

While regulations were put in place for ride-hailing companies and liberalised to some extent for traditional taxi companies, differences in operating a taxi business prevail. On the one hand, the traditional taxi trade is still subject to stricter regulations (fixed fares, quota, duties to operate everywhere, at every time, for everyone) but also enjoys privileges. On the other hand, the Uber system of dynamic pricing and flexible vehicle supply got a foothold in the industry, not least because regulations were negotiated. The unequal situation between traditional taxi companies and platform taxi companies persists and raises concerns and discontent. For the time being, despite the stricter regulations in place for platform companies, one issue is effective inspection of complying with the rules. Often, platform companies can avoid inspection as competences of labour inspectors are not specified clearly enough.

The employment situation of ride-hailing drivers and taxi drivers, somehow, made a paradoxical turn: Against the background of these strict trade regulations, self-employment and precarious work were prevalent in the taxi industry already before Uber's entrance. The recent ruling of the Supreme Court in the UK demonstrates that the provision of taxi services through Uber may entail a higher degree of subordination and control over working conditions than if mediated through a traditional taxi company (Drahokoupil & Piasna, 2017). Due to such court decisions as well as national and municipal sectoral regulation, Uber increasingly hires sub-companies employing drivers with formal labour contracts. While this strategy was intended to prevent precarious work, it merely reproduces the precarity of the freelancing model: Uber's cooperating sub-companies (*capacitaires* in Paris, TVDE partners in Lisbon or *Mietwagenunternehmer* in Berlin) use a wide array of semi-legal or informal practices to circumvent labour law. In contrast to the "bogus self-employment" which Uber has established in most of the countries it operates, this phenomenon instead rather resembled a "bogus employment", meaning a de-facto precarity of a freelancer in the legal umbrella of formal employment.

The impact of platform-mediated passenger transport on urban mobility is also double-edged. While on the one hand, especially in cities where dissatisfaction with public transport is high, it poses a viable alternative increasing transport option. At the same time, studies hint at the fact that Uber rather displaces public transport than incentivises to waiver private car use⁷⁷.

⁷⁷ <https://www.theverge.com/2019/5/8/18535627/uber-lyft-sf-traffic-congestion-increase-study>





4.5 Deliveroo and delivery services

Analysing the sectoral impact is in the case of platform-organized delivery not as clear cut as in other sectors, where the newly emerging platform-organized work meets a distinctive incumbent industry. The sectoral counterparts for, in this case, Deliveroo might be urban small-scale carriers or food delivery riders employed by restaurants and are thus not as easy to identify as in for instance accommodation, where Airbnb targets the same playing field as the hotel industry or Uber, which directly competes with the traditional taxi industry.

One reference category that is affected by the market entrance of delivery platforms are courier and postal services. In this sector typically many small-scale carriers operate with small lorries, vans and occasionally bicycles (Haidinger & Flecker, 2015; Harnay, 2019, 2020; Moore & Newsome, 2018). However, qualitative data from the focus group discussions and the expert interviews in the cities suggest that the impact of platform-mediated delivery on this subsector is rather limited. A second reference category are food delivery riders. Here, another distinction can be made between riders (or drivers), who work directly for restaurants and between riders who work for traditional delivery companies. The latter are companies, usually of small size, employing only a couple of workers. Of these, food delivery services organized by restaurants are potentially affected most heavily by delivery platforms. According to a study commissioned by Uber, platform-organized food delivery substituted 56% of deliveries directly ordered from restaurants (Deloitte, 2019). However, the quantitative impact of delivery services through platforms on food delivery services organized by restaurants in the cities still remains uncertain, as official statistical data in the cities on the employment situation of food delivery organized by restaurants was not obtainable. A subsectoral distinction gets even more complex, when taken into account that platform-organized food delivery companies might branch out towards the delivery of other goods (such as Glovo in Bologna) and in these cases overlap with other, more traditional delivery service providers, such as the ‘last-mile’-services in urban freight transport. As quantitative data is scarce, we rely primarily on the qualitative assessment of the focus group discussions and the experts interviewed in each city where Deliveroo has active operations.

As already established in the final report of WP2 (Altenried et al., 2021), the composition of the workforce in food delivery platforms has changed over the past years. The research indicates three generations of riders, with the first generation being comprised of (white) students and other workers, for whom the delivery work represents supplementary income to other forms of income or training. With growing competition and, as a result, deteriorating working conditions and pay, after a couple of years these workers are gradually replaced by migrant workers (second generation). Decreasing wages drives out these workers, who are again replaced by a third generation of riders. This contemporary workforce includes mainly migrants, sometimes also minors, asylum seekers or undocumented migrants. One crucial reason, why this sector attracts many migrant workers might be found in low entry barriers to start working, such as no requirements for formal qualification.

Deliveries through platforms are not only surging in food delivery but platform companies are also expanding strategically into the delivery of shopping from selected supermarkets, into



the distribution of Covid-19 test kits to private households or into the establishment of “ghost kitchens” or “Rooboxes”. In Paris, Barcelona and London Deliveroo partners with restaurants as franchisers to run separate kitchens to produce food (Deliveroo Editions).

4.5.1 Impact of the pandemic on the delivery industry

Online delivery services have experienced a steep increase in turnover following the Covid-19 crisis and helped the company to become profitable for the first time in the second half of 2020.⁷⁸ When movement was restricted during lockdowns, platforms such as Deliveroo, Glovo or Delivery Hero stepped in to distribute meals from restaurants to customers. Especially deliveries in food and the pharmaceutical/health care market boomed. During the first lockdown many restaurants were unprepared to deal with the new conditions and closed entirely also affecting food delivery organized through platforms. During subsequent lockdowns, however, many restaurants and other small food suppliers were more prepared and increasingly cooperated with food delivery platforms. However, the influx of new customers and revenues has not been translated into real benefits for platform workers who continue to face precarity, while they are deprived in many cases of paid sick leaves, protection material and financial support by the state (Altenried et al., 2021). On the contrary, workers in the industry have faced rising competition, because of increased unemployment in other sectors and additionally, many platforms reduced payment rates and removed barriers to entry to attract a broader workforce. During the covid-19 crisis, delivery platforms not only have expanded strategically and needed to serve an increased demand for food and other deliveries, but they also were confronted with an increased supply of couriers as unemployment in many sectors was rising due to Lock-downs. In Barcelona, for instance, during the pandemic Deliveroo has had an increase of 250% in applications for becoming a platform courier.⁷⁹ This motivated Deliveroo to strengthen a novel payment system for riders: Free log-in zones have become the dominant model in all PLUS cities where Deliveroo is active. In the ‘old’ shift system, the number of riders in a zone at a given time was limited and riders had to book the shift in advance based on their previous performance statistics. In the free log-in system, all drivers can log in anytime without prior booking. Hence, due to the potential oversupply of workers competition among riders increases putting pressure on prices. The change from booking shifts to log-in freely led to a radical decrease in calculability of assignments and payment and constitutes a substantial increase of perceived precarity.

4.5.2 Sectoral description in the cities

Deliveroo is the reference platform under consideration and is active in Barcelona, London, Bologna and Paris. At the start of the project, Deliveroo also had active operations in Berlin,

⁷⁸ <https://www.cnbc.com/2020/12/03/deliveroo-ceo-says-covid-has-accelerated-adoption-of-takeaway-apps.html>

⁷⁹ Crisis por COVID dispara al 250% peticiones para ser repartidor en Deliveroo” *La Vanguardia*, 14 October 2020 <https://www.lavanguardia.com/vida/20201014/484080464889/crisis-por-covid-dispara-al-250--peticiones-para-ser-repartidor-en-deliveroo.html>.



however the company shut down in the end of 2019 in Germany. As established above, one respective sector for reference is postal and courier activities, which is assigned the NACE classification H.53. City-specific data for this category was only available in Berlin, Estonia, Bologna and London. Of these cities, Deliveroo only has active operations in London and Bologna. While we can say little about how exactly the development of food delivery has developed, this category is an interesting indicator for courier activities in general. In all cities displayed here, an upward trend can be identified, with Berlin and London experiencing a particular steep upward trend between 2014 and 2017 (London) and 2014 2016 (Berlin) (see Figure 41). Assuming that employment in state-owned postal incumbents providing predominantly postal services (which are also part of this code) declined (Copenhagen Economics, 2018) , courier activities have been on the rise.

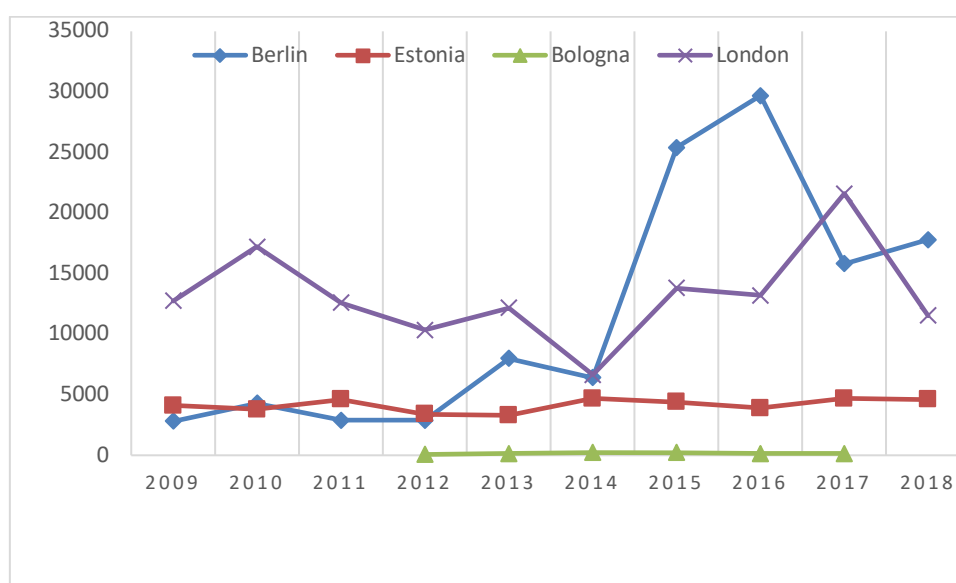


Figure 41. Number of workers in H.53 (Source: Labour Force Survey, PLUS city data)

In **Paris**, the outsourcing of delivery services started with the liberalization of the sector in the 1980s. Since the end of the transport license quota and regulatory pricing, the subcontracting of delivery in the sector has grown steadily. In Paris it is estimated that more than 80% of freight volumes are outsourced to delivery service providers (Rème-Harnay, 2020). Outsourcing is used by big companies to reduce labour costs (to save benefits and redundancy costs) and to circumvent the 35-hour working week set by the national collective agreement: around one third of small-scale carrier companies make use of informal employment (whether undeclared or partially declared) (Rème-Harnay, 2020). In Paris, this courier and transportation sector has not been particularly affected by the entrance of delivery platforms. However, in recent years the expansion of the e-commerce in general and of Amazon in particular, is radically changing the business of established providers. Whereas until 2017 Amazon subcontracted the deliveries to traditional courier companies (such as FedEx, DHL, Geodis), the company decided to take over the entire transport chain opening ‘Amazon Transport’ in the past years.

Before the arrival of food delivery platforms like Deliveroo, there were two main types of delivery riders: those who worked directly for the restaurants, generally hired on fixed-term contracts and those who worked for traditional bicycle courier companies. For the latter, two examples in Paris are ‘Urban cycle’ and ‘Coursier.fr’. These companies may also work as subcontractors for bigger courier companies such as FedEx, DHL or Geodis, for deliveries in city centres, but mostly they focus on specialized market niches. Traditional cycle courier companies are much less numerous in Paris and have been little affected by the market entry of delivery platforms. As an expert in Paris states:

“The impact on this old sector, on the traditional players, is negligible, practically nothing has happened, whereas the food delivery platforms have had an impact on the restaurant industry, on the restaurant owners” (PA-INT-1)

In **London**, until the 1990s the courier and logistics sector in the UK relied on business-to-business operations, but in the 2000s the model changed with the rapid growth of home delivery or business-to-customer deliveries. In 2011, the national courier and delivery services, Royal Mail and Parcelforce, which were previously state run, were privatized and in 2014 the company entered the stock exchange. Following the privatization agreement, older employees in Royal Mail and Parcelforce retained their employment status, while new recruits were hired as independent contractors that use their own vehicles and pay for petrol and maintenance. The courier and logistics sector in London is composed of various companies, which range in size and offer a variety of services. Even within specific subsectors in food delivery, there are divergences: companies might use their own workers to do the deliveries, companies might mediate between customers and suppliers, but deliveries are done by workers recruited by the suppliers, and companies that hire employees to do the deliveries, usually of luxury and high-quality products. Despite divergences, the common characteristics of courier and logistics companies is their usage of new technologies to optimize productivity and the rising precarity of the working conditions.

Food delivery through online platforms started in 2016 in **Bologna** with the company Delivery Hero, when the company bought a local start up named “PizzaBo”, which made on-demand food delivery service popular in the city. From that moment on, other platforms have entered Bologna’s food delivery market. In addition, there are international players such as Deliveroo, as well as local enterprises such as MyMenù operating. Overall, there are currently six food delivery platforms active in the city: Glovo (which has absorbed Foodora), Deliveroo, Uber eats, Just Eat, Sgnam/MyMenù and Winelivery. Quantitative data on riders and businesses are scarce, but an expert of the Bologna focus group discussion (BO-FG-2) estimates a total of around 700 couriers working in the city.

The sector for courier and food delivery services in **Barcelona**, is characterized by precarious working conditions, economic instability, temporality and low pay. Riders are often male, with limited or nonexistent alternative working opportunities. While riders working for platforms have only recently be classified as employees by a Spanish supreme court ruling, couriers for non-platform delivery companies (e.g. Telepizza) usually are employed. However, as one



interviewee put it: *“This sector just offers precarious working conditions, no matter if you are employed by Burger King, Telepizza or Glovo.”* (BA-FG-1)

4.5.3 Employment conditions in the sector

With regards to the employment situation and working conditions in the traditional delivery industry in **Paris**, a distinction must be made between drivers who work for traditional postal and courier services (such as FedEx, DHL, Geodis) and delivery riders, who work for bicycle courier companies or who are directly employed by the restaurants. While working conditions in the traditional postal and courier services have been heavily and negatively affected by the emergence of ‘Amazon Transport’, food delivery is on the one hand carried out by riders directly employed by restaurants or by platforms, the latter being a new phenomenon in high demand.

The entry of platforms like Deliveroo into food delivery has increased precarious and undocumented work in that sector. The latter is mainly linked to the sharing or “subletting” accounts that workers can sustain on online delivery platforms, a practice that is expanding rapidly especially in big cities like Paris. Indeed, with the decline of fares and with undocumented migrants and asylum seekers who do not have access to the self-employed status, some riders have started to rent their accounts (in some extreme cases taking up to 50% of the profits) to one or several riders who would not have access to this kind of work otherwise as they cannot open their own account. The user accounts are shared or rented mostly on an informal online market via Facebook Groups. Due to the increasing interference of these intermediaries into the food delivery market, working for platforms becomes informalised in large urban contexts, and formal assignments carried out for delivery platforms mingle with the grey economy (Altenried et al., 2021, p. City Report Paris).

The employment situation in the courier and transportation sector in **London** shows similar characteristics. At the time of business-to-business deliveries, most workers were employees, working six days per week. However, the spread of business-to-customer deliveries and the competition through emerging deliveries through platforms led most courier and delivery companies to opt for self-employed couriers. The digitalization of the delivery sector has further intensified the workload and the spread of precarious working conditions even in more traditional companies, in which it became commonplace to replace employees with self-employed contractors and for the management to rely on algorithmic control. As a result of the widespread usage of new precarious labour patterns and new technologies of algorithmic control, working conditions have deteriorated for most workers in the sector. Bogus self-employment is common, i.e.: workers are labelled as self-employed, but in practice working full-time and exclusively for one platform.

The workforce in **Bologna** differs from platform to platform: while the riders for MyMenu Sgnam are mainly comprised of students, other platforms rely on migrant workers for their deliveries. Undeclared and non-standard forms of employment are common among the whole industry and usually, riders are required to provide their own means of production. Low entrance barriers as a defining characteristic of the sector.



The employment situation in **Barcelona's** delivery industry is equally challenging. Delivery workers associated with platforms are typically lacking a regular employment contract. Contrastingly, couriers for non-platform delivery companies are employed by the companies. Since 2016, couriers for local food delivery companies, such as *Telepizza* are subject to a collective agreement ("*State Collective Agreement of Manufacturers of Cooked Products for Home Sale*"). This collective agreement is applied to workers of companies that prepare and produce cooked products for home delivery. The agreement was signed by the unions UGT and CCOO and Prodelivery. Prodelivery is the business association of prepared food for its delivery. The collective agreement provides a set of minimum labour standards, including a minimum pay of EUR 950. However, in practice, companies often do not adhere even to these minimum standards. One major dispute concerns on-call work that displaces scheduled shifts although the collective agreement foresees clear rules for flexible timetables. Despite existing non-compliance of companies with collectively negotiated labour standards, the situation of couriers for food chain restaurants is better than the situation for workers on platforms:

"Being able to unionize makes it easier for [the workers] to achieve improvements. For example, they are more protected in case of an accident, [because] it is recognized as an occupational health and safety issue and therefore they are covered by the respective social insurance. Conversely, workers registered as self-employed are totally unprotected. In fact, although the platforms advertise that couriers can be privately insured many times when couriers have an accident the company completely ignores it." (BA-FG-2)

Couriers working through platforms in Spain are not covered by this collective agreement, as workers for these platforms are usually self-employed, such as at Glovo, Deliveroo and Uber Eats. While working conditions the composition of the workforce also vary between these platforms mainly due to platforms' different sociotechnical design (Altenried et al., 2021, p. City Report Barcelona), the baseline is the same for all of them: all platforms have low pay and do not offer employment contracts.

4.5.4 Changing business strategies

It becomes apparent that organizing delivery work through platforms is expanding beyond food delivery at urban level and at regional level. The sector of small-scale deliveries is heavily affected by the digitalisation of delivery work. Not only have the companies in the courier and transportation (sub)-sectors been changing delivery processes in the past years. Delivery platforms have – next to the delivery of food – also expanded strategically: into the delivery of shopping from selected supermarkets, into the distribution of Covid-19 test kits to private households or into the preparation of food through so-called "ghost kitchens", "dark kitchens" or "Rooboxes".

In **Paris** and **London** Deliveroo partners with restaurants or individual cooks as franchisers to run separate kitchens to produce food (*Deliveroo Editions*). Obviously franchising, one of the typical forms to "fissure the workplace" is gaining importance (Weil, 2014): a known and well-established business and outsourcing strategy is getting a foothold in the new platform



economy, hence combining franchising with platform-operated labor processes. In **Barcelona** such dark kitchens are also becoming more common, and under the technological supremacy of the platform, dark kitchens seem to absorb traditional restaurants, as a focus group discussion participant in Barcelona states:

“Almost every week I come across a new [dark kitchen]. These dark kitchens began by providing services to restaurants themselves, mainly to chain restaurants. But they have gone a step further creating their own brands and replacing traditional commerce, when they have acquired all the information, about the demand, the average price, the waiting time, the type of food, the neighborhood.” (BA-FG-3)

Interestingly, despite the mounting pressure on the food industry, the restaurants stance towards the platforms’ expansion is ambiguous. For instance, in Barcelona, local restaurants signed a public letter in support of platforms.

In **London**, these “Rooboxes” are often set up in shipping containers or industrial buildings. This is a qualitative leap for delivery platforms such as Deliveroo as this move undermines the decentralized model of food production by restaurants and Deliveroo places itself in the city space. Through this model, restaurants can reach additional customers, while Deliveroo can centralize production and enjoy a monopoly on the specific restaurants’ food deliveries. And, as mentioned in the quote above from the Barcelona experiences, retain control over the information on the order and delivery process. According to CNBC⁸⁰, Deliveroo runs Deliveroo Editions in Europe in the U.K., France, Spain and the Netherlands. In the UK, these new kitchens have contributed to a 50% rise in UK sales, according to one report commissioned by Uber (Deloitte, 2019). One of the interviewees in London (LO-INT-15), who is in local government in Camden argued that there was a steep rise in these kitchens during the pandemic creating issues with noise and pollution caused by increased deliveries.

The commission charged by the platform for food delivered through these kitchens (Deliveroo editions), might be higher than the usual 30% commission, as an expert in **Paris** suggest, up to 50 % of the order. However, the high commissions are compensated by two main factors: on the one hand, for running a dark kitchen restaurant owners pay less rent than for their main branch in the city (in Paris this can be a considerable saving). On the other hand, it is an expansionary strategy as dark kitchens can attract a wider clientele than would be possible through the classic restaurant business. An expert in Paris argues that, particularly in the context of the health crisis and the subsequent lockdowns,

“there are more and more cooks who specialize in this area and who no longer have their own restaurant but only work in these dark kitchens. Sometimes they manage,

⁸⁰ <https://www.cnn.com/2020/12/03/deliveroo-ceo-says-covid-has-accelerated-adoption-of-takeaway-apps.html> , accessed March, 15, 2021



depending on their reputation, to negotiate a contract closer to the classic commission of around 30%.” (PA-INT-2)

Currently, three dark kitchens operated through Deliveroo in Paris exist. The pandemic seems to have furthered this development, as people or small companies, who are out of work due to the health crisis, established their own dark kitchens.

Another strategy to counter platform-mediated food delivery was mentioned in **Paris**: food delivery cooperatives, sometimes supported by local institutions, are founded, often by former platform riders. While growing in the context of the Covid-19 health crisis, this model still constitutes a small niche of the food delivery market. One very recent example of an alternative (or “ethical”) delivery platform in Paris is Resto.Paris, launched in September 2020 by the cooperative Olvo (a delivery cooperative founded in 2015 by some former Take Eat Easy, Foodora, Deliveroo and Uber Eats riders) together with the delivery cooperatives federation CoopCycle and the association Écotable. The riders of this platform drive cargo bikes and are for the most part directly employed by the delivery cooperative Olvo, are paid by hour (EUR 16 to 18) and the commission charged to the restaurants is lower. A similar cooperative initiative is Katuma in **Spain**, an online platform specialized in organizing trade between producers and customers consumers of agricultural goods.

In **London**, the incumbent courier and postal sector also use bike deliveries. Courier companies advertise bicycle deliveries as suitable for companies who wish to adopt environmentally sensitive corporate responsibility strategies and wish to reduce their environmental footprint. However, an interviewed labour union representative in the UK (LO-INT-12) argues that bicycle deliveries are used to obscure precarious and exploitative labour relations in the sector and the broader negative environmental impact of platforms. In effect, platform delivery companies are using bicycles to “green-wash” their otherwise harmful labour practices by prioritizing the environment at the expense of labour rights and by devoting very few resources on environmentally sound technologies.

4.5.5 Organizing delivery riders

While delivery platforms are expanding and explore new venues, they increasingly face workers’ resistance towards their exploitative work organization: Deliveroo and other delivery platforms face much discontent and protest by riders, who are frequently organized in grassroots unions. Examples for active grassroots unions are the Riders Union (Bologna), CLAP (Paris), RidersxDerechos (Barcelona) and the IWGB (London). While all riders wish and some fight for an improvement of their working conditions and payment, differences become apparent. Some believe it key to be recognized as employees and to profit from rights and entitlements related to an employment. Some are in favour of being recognized as self-employed and feel neglected in the public consultation processes tending to the former solution. It should be noted here that flexibility in work arrangements and working time does not necessarily need the adoption of a self-employed status and the subsequent exclusion of workers from labour protection.



In **Barcelona**, before the upsurge of companies such as Deliveroo, platform couriers working for the main restaurant chains that prepare food for delivery, such as Telepizza, were already participating in major strikes and protests and asked for better working conditions. An active mobilization of riders for platforms started in the early days of the platforms' market entry. However, motives of the mobilizations, as well as the main stakeholders involved have changed over time. The first actor to ask for better working conditions was Riders x Derechos (RxD). RxD is formed by former platform couriers from companies such as Deliveroo and Glovo. The first members and founders of the collective were expelled from Deliveroo for asking for better working conditions and after realizing that major traditional unions were not supportive, they decided to reach out to Intersidical Alternativa de Catalunya (IAC) which has supported them since the beginning. Traditional unions, such as UGT and CCOO only paid attention to the sector, when the problematic working conditions became apparent. At the same time, riders' associations flourished who asked for a modification of the labor law to include a new categorization known as "TRADE Digital" that would allow platform companies to keep riders as self-employed appealing to digital innovation.

In **Paris** workers of the courier and transportation sector are organised in collectives and/or sectoral unions or grassroots unions. Traditional unions are having difficulties recruiting platform workers, as they still focus on the traditional employee.

Labour Unions in the **UK** have tried to challenge precarious labour conditions by taking companies to Court to expose bogus self-employment, but companies have contested court decisions that were favourable to workers either by appeals or by simply changing their term and conditions in order to make sure that they do not apply to all workers. In 2017, the Central London Employment Tribunal ruled that the courier company CitySprint had unlawfully classed a courier of the Independent Workers Union of Great Britain (IWGB), as self-employed and failed to award her the worker status, which includes holiday pay and a minimum wage. Following this ruling, CitySprint changed the contracts for all its cycle couriers to make sure that they would be lawfully classified as independent contractors.

4.5.6 Regulation

Attempts to regulate the sector vary across the countries and cities in consideration. First, there are initiatives regarding the misclassification of people working through platforms. In Spain such an initiative led to the resolution of a new bill, tackling the issue of misclassification. In contrast, in France, the proposal for a separate employment status for platform workers was rejected. Second, collective agreements aiming at improving working conditions have been reached in the UK (a company agreement), Barcelona (for employed food delivery riders) and in Italy (collective agreement and local agreement in Bologna). Third, there are initiatives to regulate specific issues in relation to bicycle delivery (the establishment of waiting rooms in Paris). And fourth there is growing concern about the need to regulate dark kitchens due to noise and air pollution, however, so far, no specific regulation has been brought forward.

On a national level in **France**, the former president of the social chamber of the Court of Cassation (Jean-Yves Frouin) presented a report on *"the status, the social dialogue and the*



social rights related to digital work platforms". The report ("*Frouin mission*") rejects the introduction of a third employment status that would place workers between self-employed and employed. On the contrary, the report recommends that people working for ride hailing and food delivery platforms should, after six to twelve months of activity and a certain level of turnover, be granted an employee status and all the protections of salaried employment, without jeopardizing their autonomy by a third party. This third party may be a holding company or an employment and activity cooperation. However, this solution is contested by the great majority of labor unions and riders' organizations since it exempts platforms from all their responsibilities as employers, while leaving them in control of working conditions. In **Paris**, representatives recently proposed to create "waiting rooms" for platform food delivery workers: the city of Nancy is the first to have an open room in the city center, where workers may rest, warm up and have access to a toilet. In Paris, communist elected councilors of the 18th arrondissement have a similar project of a "courier house" that will be managed on a day-to-day basis by CoopCycle, the federation of delivery cooperatives, which is not linked to Deliveroo, Uber Eats, or any other platform.

In the **UK**, on the 4th of February 2019, the labor union GMB announced that they have signed a collective agreement (company level) between Hermes and the Union. According to an interviewed expert, it was the first collective bargaining agreement of its type in Europe and gave employees the option to become 'self-employed plus' by signing a contract, which allowed them "to retain the flexibility of self-employment (which many of our courier union members want) while also giving them the certainty of guaranteed levels of earnings, holiday pay and a recognized union in their workplace" (Roache, 2019). Those who sign up for this scheme are given holiday pay (pro-rata up to 28 days) and, individually negotiated pay rates that allows them to earn at least £8.55 per hour over the year, as well as labor union representation. Those couriers who don't opt for this option can continue working as self-employed under the previous status. The collective agreement was achieved after GMB took the platform to court and began a campaign against labor rights violations occurring at Hermes. Through labor union organizing, increased membership, negotiations with the company and a high-profile campaign that included senior politicians and pressure in parliamentary select committees, GMB successfully signed the collective agreement. A GMB representative stressed in an interview that, although it was difficult at first, the company came under a lot of pressure because of brand damaging that also had potentially negative impacts on investments. GMB is focusing currently on developing sectoral collective bargaining, but unionization in the sector depends on the commitment and investment that couriers make: for example, workers using the Deliveroo app frequently use it temporarily to increase their income, and are less prone to unionize as they tend to move in and out the sector and only need a small investment for a bicycle. On the contrary, workers who are doing deliveries with lorries or cars tend to be much more likely to unionize because they need to make higher and more long-term investments.

Also in **London**, local authorities are facing an additional problem with the development of dark kitchens, which remain outside the current regulatory framework. The development of dark kitchens in several London districts has raised concerns amongst the authorities, who receive frequent complaints from neighbors for air and noise pollution. According to a



representative from UNITE the Union, the development of these dark kitchens has increased during the pandemic as demand for food deliveries boomed contributing to the de-skilling of the chefs and undermining health and safety regulations.

The **Spanish** government, which has promoted several measures to mitigate Covid impact, announced during 2020 its willingness to bring a bill to the Council of Ministers to prevent misrecognition of labour relations on digital platforms such as Glovo and Deliveroo. In March 2021, it was announced that an agreement was reached and that this bill was going to be officially approved in the following months. As described above, for employed food delivery riders exists a collective agreement since 2016 and was signed by the unions UGT and CCOO and Prodelivery.

In **Italy**, a diversity of employment models for riders is in place: the delivery platform Just Eat moved to a model hiring riders as employees in March 2021⁸¹ while Assodelivery and the Italian trade union UGL signed a collective agreement last year based on riders' status of "self-employed".⁸² In Bologna, in 2018, an experimental local agreement was signed between grassroots unions, traditional unions, municipality and two platforms promoting a set of fundamental rights (with regards to wage and working time).⁸³

4.5.7 Conclusions: Deliveroo and Delivery Services

The effect of Deliveroo's market entrance in the cities of the PLUS project are diverse and sometimes difficult to pin down. Specifically, effects on incumbent companies providing delivery services require a closer look: for food deliveries organized by restaurants the market entry of platforms has had a disruptive effect and assumably largely substituted this specific form of service provision. In this subsector, workers were typically employed by the restaurants they carried out the delivery of meals for the customers. The effect on other, not so closely linked delivery services might be far less pronounced, but is difficult to assess the scope of such effects in the sectoral city reports.

What seems apparent, is the diversification of services provided by food delivery platforms, which shows most distinctly in the emergence of dark kitchens, a franchising system where food is prepared specifically for Deliveroo in industrial areas or containers. The preparation of food through a franchising system can be viewed as a business strategy to gain more control over the suppliers (in this case the restaurants), which are fully dependent on the platform. As reported from the focus group discussions, the fees the platform charges from these franchises are much higher than for restaurants. Conversely, this franchising system is likely

⁸¹ <https://www.reuters.com/article/italy-just-eat-workers-idUSL1N2LS1TU>

⁸² <http://englishbulletin.adapt.it/wp-content/uploads/2020/09/Assodelivery-and-Italian-trade-union-UGL-concluded-the-first-agreement-in-the-food-delivery-sector.pdf>

⁸³ <https://digitalplatformobservatory.org/initiative/charter-of-fundamental-rights-of-digital-labour-in-the-urban-context/>



increasing competition on traditional restaurants. An aspect that delivery and logistics companies are taking into account is the additional distribution of parcels and express services through bicycles following the trend of environmentally friendly delivery. Moreover, delivery platforms are increasingly expanding into the home delivery of grocery shopping. This trend was exacerbated during the Covid-19 pandemic when – on the demand side – social contacts needed be severely limited and – on the supply side – new small distribution centers for daily needs in cities emerged. On top, public tendering played a role in displaying the importance of riders’ logistical power (fast, flexible and environmentally friendly) when cities such as Vienna contracted bike delivery companies with picking up and delivering Covid-19 test-kits.

A crucial element of the wider delivery sector is the extensive use of outsourcing, even prior to Deliveroo’s market entry. Today, many workers in the sector are hired as independent contractors or work self-employed. Working conditions are notoriously challenging for delivery riders in general and are characterized by low pay and by temporary employment. The employment situation is additionally characterized by forms of bogus self-employment. A practice reported in Paris for platform bicycle delivery riders is the ‘sub-letting’ of accounts, usually to undocumented migrants, who cannot obtain a working permit and thus cannot open an account themselves. These accounts are traded online, for instance on Facebook groups and the owners of the accounts are collecting a fee, which is reported to be up to 50% of the profits.

Organizing efforts visible in all cities under consideration, through both, grassroots initiatives, such as the Riders Union (Bologna), CLAP (Paris), RidersxDerechos (Barcelona) and the IWGB (London), and established unions, such as UGT and CCOO in Barcelona. Traditional unions in the cities in question only became involved in subsequent organizing efforts and frequently face recruiting issues. In London, there have been lawsuits on the issues of worker misclassification, which were contested by the companies. Overall, the impact of these organizing and collective actions is rather limited.

Collective agreements do exist but do only extend to employed food delivery riders for platforms in Bologna and Barcelona: in the UK a company agreement has been reached with a provider in the traditional delivery sector, in Barcelona a sectoral agreement was reached for employed food delivery riders and in Italy a collective agreement was negotiated and also local agreement in Bologna. Regulation was also pursued before courts tackling the misclassification of food delivery riders as self-employed. In France, the debate was around a new classification of workers, which was dismissed, in contrast, in Spain a respective bill was adopted to prevent the misclassification of workers through platforms.



4.6 Airbnb and short-term rental

4.6.1 Sectoral description and data

This chapter gives an overview over the quantitative and qualitative dimensions of the hotel and accommodation industry in the PLUS cities and provides an assessment of the industry's relation to the short-term rental market. Recent developments in employment and the overall market structure and company strategies in hotel and accommodation are also discussed. Finally, we outline most important sectoral regulations or regulations that impact highly on the hotel and accommodation industry.

Data for this chapter was gathered from Eurostat, municipal statistics and complemented by desk research. The analytical sections are mainly based on city reports and the city industry reports. The city reports are based on expert interviews conducted between April and July 2019 in each city (see interview guideline and list of experts in Annex, 7.1), the city industry reports on the hotel and accommodation industry are based on focus group discussions in Barcelona, London and Bologna and on individual interviews with industry experts in Berlin, Lisbon and Paris, where focus group discussion were not possible due to the research conditions during the Covid-19 pandemic (see interview guideline and list of experts in the Annex (7.2).

The relevant NACE Codes concerning the hospitality industry are I.55.1, which refers to hotels and similar accommodation and I.55.2, which refers to holiday and other short-stay accommodation and includes short-term hospitality offers such as traditional Bed and Breakfast and short-term rentals through online platforms (see Table 12. NACE Categorization for Accommodation). The regions covered represent the Nuts 1-classifications for Berlin, London and Île-de-France and the Nuts 2-classifications for Cataluña, Lisbon and Emilia-Romagna, if available. For Estonia the Nuts-0 category is used, where necessary.

NACE Code	Description of activities	
I.55	Accommodation	
I.55.1	Hotels and similar accommodation	This class includes accommodation provided by: hotels, resort hotels, suite/apartment hotels, motels
I.55.2	Holiday and other short-stay accommodation	This class includes accommodation provided by: children's and other holiday homes, visitor flats and bungalows, cottages and cabins without housekeeping services, youth hostels and mountain refuges

Table 12. NACE Categorization for Accommodation



While tourism and overnight stays increased steadily in all PLUS cities over the past decade, a remarkable surge is apparent in short-stays. In Île de France and Emilia-Romagna the number of short-stays has doubled in the last decade. In Lisbon, it has increased more than 10-fold, while in Berlin and Cataluña we also see an upward trend. There is an upward trend for nights spent in holiday and other short-stay accommodation in Estonia as well, however, it is far less pronounced compared to the other areas (see Figure 42).

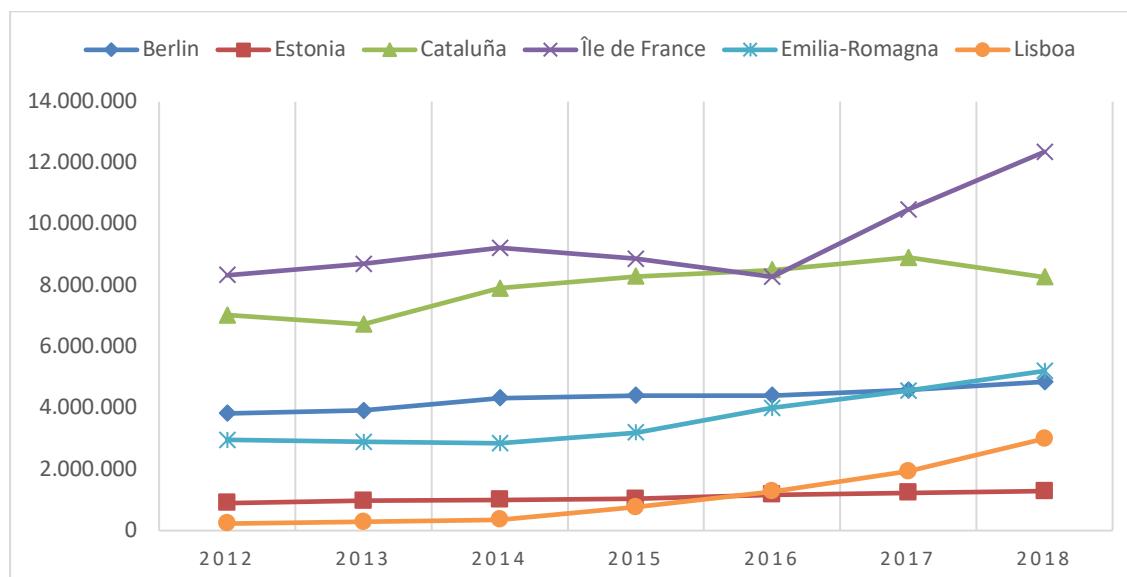


Figure 42. Nights spent at holiday and other short-stay accommodation NACE I55.2 (Source: Eurostat)

These short-term stays do not exclusively represent short-term stays through online platforms such as Airbnb, but also include other forms of accommodation as indicated in Table 12, most importantly, traditional bed and breakfast. Nonetheless, short-term stays through online platforms are assumed to represent a large share of this category: for Berlin an expert suggests in the focus group discussion that Airbnb adds 4 million bed-nights (in 2019) of around 4,8 million bed-nights in this category (for 2018). According to AirDNA statistics for Estonia,⁸⁴ in 2018 377.421 nights were booked through Airbnb, which accounts for a significant share (around 30%) of total nights spent in holiday and other short-stay accommodation in that same year.

In the same period, the hotel and similar accommodation industry, which can be viewed as the traditional or incumbent accommodation industry and in which many more nights are spent than holiday and short-stay accommodation, also shows an upward trend, however, this trend is not as pronounced as in holiday and other short-stay accommodation (see Figure 43).

⁸⁴ https://static2.visitestonia.com/docs/3353424_airbnb-eestis2017-18.pdf

The largest increases in nights spent can be observed in Cataluña, Emilia-Romagna, Lisbon and Île de France.

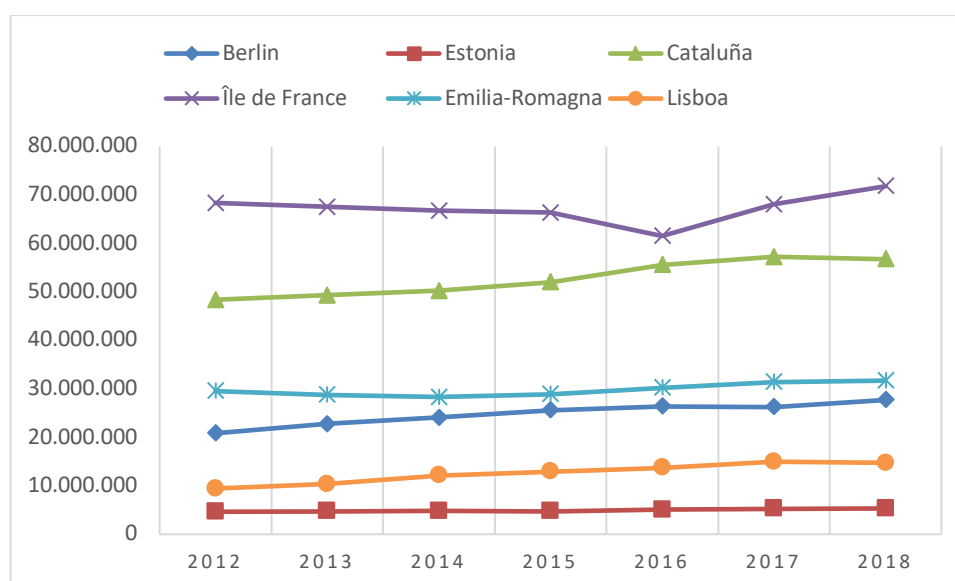


Figure 43. Nights spent at hotels and similar accommodation. NACE I55.2 (Source: Eurostat)

According to a publication by Colliers & the Hotel School of the Hague (2018) and data compiled by the city partners, there is a large growth for Airbnb bookings in all cities, where data is available but a much smaller growth for total accommodation units booked. Airbnb's market share is biggest in Paris and in Barcelona.

City	Booked accommodation units	Overnight stays	Growth of overnight stays Airbnb // total	Airbnb Market share
Tallinn	4.308	377.000	+34% // +1,6%	9,9%
Paris	82.810	6,4 million	+28% // +11%	15,2%
London	101.562	6,7 million	+45% // +4,6%	6,9%
Berlin	33.005	2,16 million	+24% // +0,3%	6,5%
Barcelona	34.168	3 million	+15% // 0,7%	13,2%
Bologna	4.000			
Lisbon	14.000			

Table 13. Airbnb in Europe. Major Cities compared (Source: (Colliers & The Hotel School of the Hague, 2018); city reports)

4.6.2 Impact on the hotel sector

Airbnb functions as a platform for short-term rentals, that is used by tourists in particular. It provides the digital platform for the matching of host and guest, provides insurance for the owner of the flat and organizes the payment and in return, a fee is collected by the platform. Besides individual hosts, who rent out their own property, the platform is increasingly used by large(r) companies to rent out a greater number of properties. In the meantime, the platform faces public scrutiny for its role in processes of gentrification and the rising rent gap



in many of the cities the platform is active in, as private short-stay rentals have become increasingly popular among tourists.

Particularly, there are ongoing discussions on what impact short-term rentals through online platforms have on the hotel and accommodation industry in urban areas. Naturally, a common assumption is to see short-term rentals in competition with the hotel and accommodation industry. In an extensive literature review Guttentag (2019) found that some studies support this basic assumption, while others do not: one study by Zervas et al. (2016) found for Austin, US that Airbnb puts downward pressure on the hotel and accommodation industry's prices and on revenue per available room (Xie & Kwok, 2017). Another study mentioned in the literature review by Guttentag found a small negative impact on hotel revenue and occupancy (McGowan & Mahon, 2018). Furthermore, a study conducted for Barcelona by Benítez-Aurioles (2019) asked if Airbnb is bad for hotels and found a negative impact between the number of Airbnb reviews and the hotel industry's revenues (measured through occupancy and revenues per room) and increases average daily rates for hotel rooms. Gallic & Malardé (2018) argue in their study that Airbnb listings in the vicinity of hotels leads to decreasing prices, especially on weekend evenings.

On the other hand, three studies conducted in South Korea (Choi et al., 2015), in Swaziland (Ginindza & Tichaawa, 2019) and San Francisco (Blal et al., 2018) found no negative impact on the hotel industry. So, despite the quantitative surge and the ongoing debate on short-term rentals' impact on the hotel and accommodation industry, there is no clear correlation between the emergence of short-term rental offers and revenues or occupancy in the hotel and accommodation industry.

According to participants of the focus group discussions, points of friction between the accommodation industry and emerging short-term rentals often concern a double standard concerning legal requirements, such as safety or hygiene standards and taxation issues. However, the conflict mostly appears to be for a share of a growing pie and not a fight against the decline of the industry as such. This assumption could be supported by the fact that tourism (measured through nights spent) is increasing in all cities under review (Figure 43). An expert in the focus group discussion in **Paris** suggested that there has been no major impact on employment in the hotel industry linked to the emergence of Airbnb, as the occupancy rates remained relatively stable over the past years. However, the same expert argues that the prices in the hotel industry "have decreased, while the fixed costs for hotels are still the same." (PA-INT-3) However, the effects of the emergence of Airbnb depend on the category of hotels under consideration: hotels in lower price categories suffer more from the rising competition through short-term rental platforms than hotels in higher price categories. In a similar vein, an expert in **Bologna** assumes that the emergence of short-term rental platforms increased competition in the accommodation industry, but because the market increased as well, incumbent hotels do not have less customers (BO-FG-5). The incumbent hotel and accommodation industry in **London** seems to be affected stronger by the market entrance of short-term rental platforms and the increased competition. Especially during touristic, sports or cultural events there is enormous demand for short-term rentals that require accommodation that traditional hotels cannot cover (LO-INT-15). The traditional sector has



struggled to compete and introduced offers and also creating a drive for smaller boutique hotels (LO-INT-14). More recently, there has been a rise in apartment hotels that include small kitchens within the rooms.

High investments in both the hotel and local accommodation sectors in **Lisbon**, together with significantly growing tourism, have contained the tensions between incumbent hotels and the short-term rental businesses. From a business perspective, possible tensions between investment in the hotel sector and investment in the short-term rental market had less drastic effects than some commentators believed when the latter market began to expand in Lisbon. The emergence of STR platforms has not prevented a considerable increase of hotels in many central areas of Lisbon.

4.6.2.1 Pressure by online booking platforms

One aspect that is apparent in many cities in the hotel and accommodation industry are emerging booking platforms, which have established themselves as indispensable for the hotel and accommodation industry and intensified the market pressure. Online bookings through platforms such as Booking.com or Expedia make up to a substantial share of total bookings. According to experts in **Paris**, over the past decade almost 80% of the guests in Parisian hotels booked their rooms through one of these platforms. Participants of the focus group discussion in **Barcelona** stress the heavy dependence on the platforms and the problems with price parity clauses:

“Hotels fully depend on Booking. Up to the point where they squeeze us with abusive fees, such as price parity clauses, which have been regulated in many other European countries to get rid of them. Because I can’t have a cheaper offer on my own website.”
(BA-FG-4)

This dependence is described as mutual as the platform Booking.com is favoring hotels over short-term rentals. When the platform first emerged in the city, as a gesture of goodwill, it decided to not publicize any short-term rental listings, unless they had a license number. According to experts in Berlin, only larger hotel chains appear to have a leverage in negotiating conditions with these companies. In **Paris**, over the past years, hotels were trying to use these platforms less and less for, because of the high fees the platforms charge for brokering the room (Booking.com charges 18% of the transaction). One strategy to avoid using these platforms, according to experts, is to attract more business travelers, as these are more likely to be returning customers and who – for billing reasons – neither use Airbnb nor Booking.com.

4.6.2.2 Outsourcing & Ancillary services

Outsourcing practices of services in the accommodation industry are not new but were established in PLUS cities decades ago. These outsourcing practices relate first to outsourcing the provision of services to external service providers, which is common for laundry services and second to making use of temporary work agencies. For **Berlin**, a representative of a



German accommodation company association states that outsourcing has been a well-established strategy by companies for hotels and hostels to reduce their employed staff to a minimum and to use external service providers to ensure flexibility and profits. The expert, who has been a hotel manager for decades, reflects on this development as a continuous reduction of staff:

"In 1976 I learned in [a] hotel in Hamburg: 351 rooms, 500 employees. The last hotel I managed had 700 rooms and 170 employees. A lot has already been outsourced in the area of room cleaning, basic cleaning, window cleaning. Even stewarding has been partially outsourced. We no longer have many permanently employed waiters, but get them from outside companies during events." (BE-INT-2)

Similarly, in **Lisbon** laundry services for hotels are frequently outsourced: smaller hotels generally use their own staff or hire small family-run businesses for cleaning services, while larger hotels make extensive use of outsourcing with larger cleaning companies. It becomes evident that the external workforce that works for the hotel industry increasingly fringes into working for the short-term rental market: service providers that were previously linked to hotels today also offer their services for the short-term rental market. This includes industrial laundries, the management of warehouses and deposits in which all the necessary goods for the tourist reception (such as towels, sheets and tablecloths) are stored, check-in and check-out, flat repair and maintenance and, importantly the cleaning services. Focus group discussants assume that outsourcing has grown with the emergence of short-term rental platforms. Reasons are the formation of large intermediary companies, which allow to compete for very low prices. For **Bologna**, the outsourcing practices also started some years ago and are seen as the main driver behind any reduction of the workforce:

"Since almost ten years, traditional hotels started to outsource most of the services such as cleaning and cooking." (BO-FG-5)

In **Barcelona**, outsourcing is seen mainly as a strategy to lower costs to cope with the uncertainty and the competition in the sector. Some hotels even created their own companies to rehire the personnel at a lower cost, similar to practices present in the cleaning sector (see chapter 4.3 in this report). In **London**, both professional Airbnb agencies and hotels subcontract cleaning to large cleaning companies that invoice hotels and Airbnb hosts by the number of rooms cleaned and not by the hours cleaners spend working.

In the focus group discussions, participants were also asked to discuss, if actors in the accommodation industry use online platforms (other than Airbnb) to purchase needed services. For the incumbent businesses, it seems that the integration of platforms into the value chain is not common. Instead, these companies work together with conventional service providers or temporary work agencies. Concretely for **Berlin**, cleaning services are not obtained through Helpling, although Helpling recently announced to enter the B2B business.⁸⁵

⁸⁵ <https://www.deutsche-startups.de/2021/02/28/philip-huffmann-helpling-currywursttalk/>



Also in Berlin, associations such as DEHOGA (a German accommodation company association – Deutscher Hotel- und Gaststättenverband) received offers by companies such as Uber Eats prior to their market entry, and are offered cooperation contracts. The idea supposedly was to deliver food to hotel guests. So far, these offers were declined by the business association because partnerships with delivery companies are viewed as harmful to most accommodation businesses' own gastronomy services.

Regarding outsourcing in the short-term rental industry, there is a tendency towards professionalization that reflects in the increased use of outsourcing activities: external providers (both professional and undeclared) are employed to deliver ancillary services for short-term rental hosts. Activities, such as cleaning and maintenance are passed on or subcontracted to family, neighbors, friends or professional external providers. Activities to establish, maintain and advertise rental premises on the Airbnb platform, or on-site customer interaction, such as the catering for guests on-site may also be outsourced.

In the case of short-term rentals, there often emerge multiple layers of outsourcing activities: on the first layer, intermediary companies are hired by the landlords (the Airbnb hosts) to manage their flats. According to interviewees in **Lisbon**, the largest of these intermediary companies manage up to 800 flats. On a second layer, in case these intermediary companies manage such a large number of flats, they again outsource services to professional service providers, especially laundry and non-routine maintenance services, while other services remain in the intermediary company, such as check-in/check-out and cleaning services and are contracted directly to workers (LI-INT-3).

In addition, the hosting on Airbnb is not limited to local hosts who manage their own properties, but there is also more professional hosting. Such management companies differ in size, ranging from small self-employed entrepreneurs who manage a few rentals, to large companies managing a greater number of properties, employing several employees and offering multiple services. This illustrates how, over the past years, Airbnb professionalized and moved away from its more grassroots, peer-to-peer approach. The proportion of Airbnb multi-listers (renting out 2 or more accommodations) is more than 60% in London and Barcelona, in Paris and Berlin their share is between 30 and 40% (see *Table 13. Airbnb in Europe. Major Cities compared Table 13*).

4.6.3 Working in the industry

4.6.3.1 Numbers & composition of workforce

Employment in the hotel and accommodation industry shows varied growth rates across the regions in focus. Looking at employment in the accommodation industry and the food service activities (see Figure 44), we see large employment gains in London and less pronounced employment gains in Lisbon and Barcelona. Contrary, we see moderate declines of employment in Paris and stable employment numbers in Berlin, Bologna and Northern Estonia (the respective Nuts-3 region). Interestingly, both Berlin and Paris highlight declines in employment in 2015 and 2016.



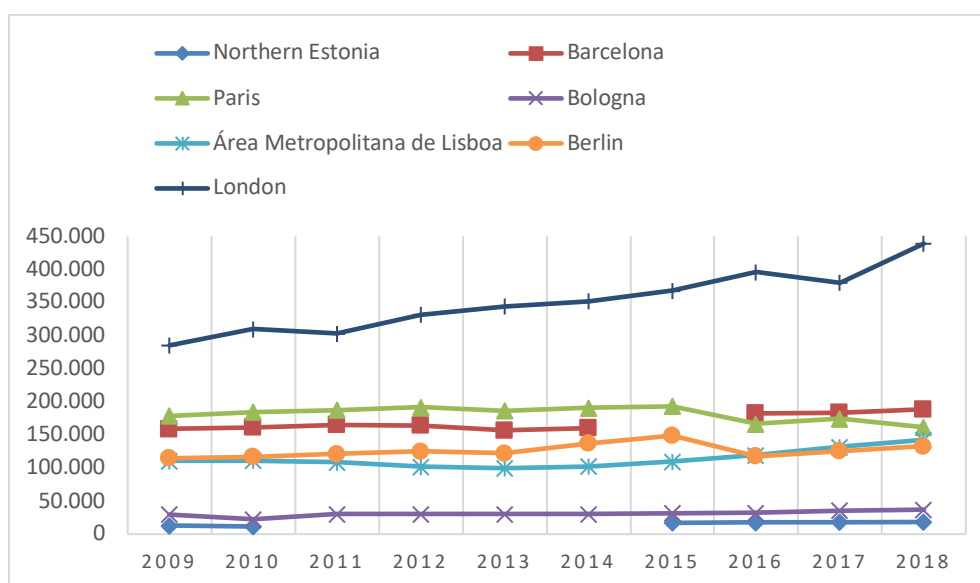


Figure 44. Persons employed in the population of active enterprises in accommodation and food service activities by Nace_R2 and Nuts-3 regions (Source: Eurostat and PLUS city data)

Focusing on the more relevant employment statistics for accommodation (NACE classification I.55), we see on Nuts-2-region level that large employment gains occurred in the past decade in Lisbon (55%), London (35%), Cataluña (25%), Estonia (20%) and Berlin (18%) (see Figure 45). Employment remained relatively stable in Île de France (with a sharp decline between 2014 and 2016). In the Emilia-Romagna region employment declined slightly (5%).

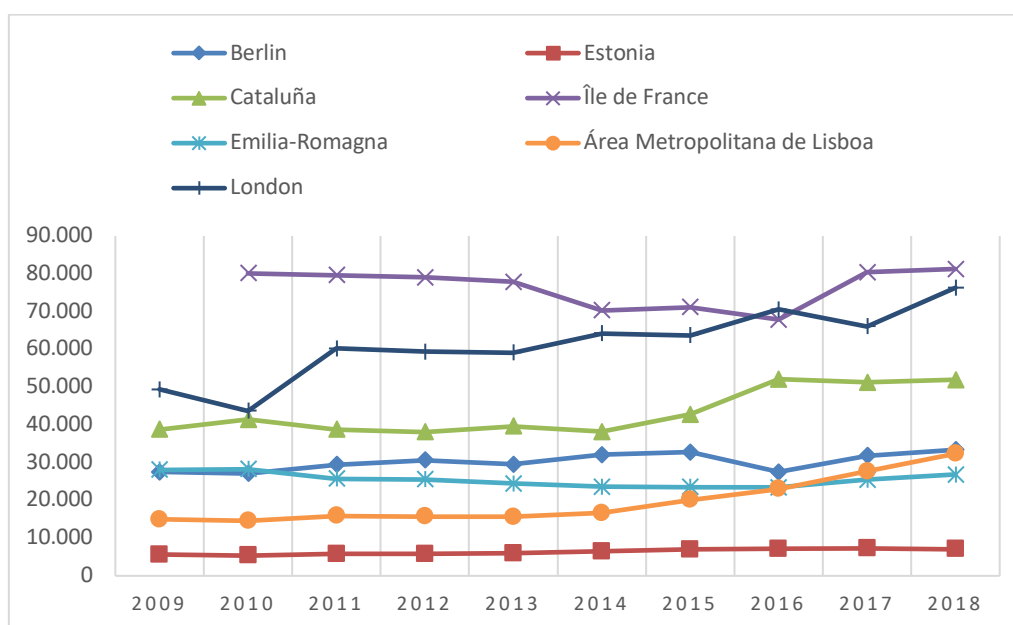


Figure 45. Persons employed in NACE I.55 and Nuts-2 regions. (Source: Eurostat)

The workforce in tourism is composed of more female workers than male workers (see Figure 46). According to experts in the focus group discussions (for instance in Barcelona or Berlin)



maids working in the accommodation industry are mostly women. Furthermore, work in the accommodation industry often is done by migrant workers.

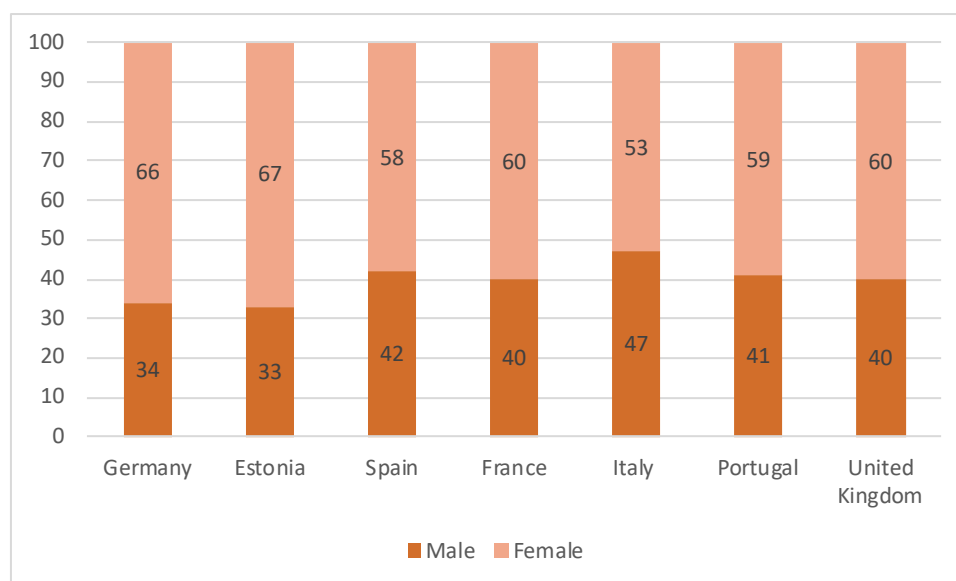


Figure 46. Share of persons employed by gender, 2017 (%) in accommodation (NACE I.55) (Source: Eurostat)

4.6.3.2 Working conditions

Working conditions for personnel in the accommodation industry is discussed in the focus groups as strained and precarious in all cities under review. Highlighted are employment relationships that are frequently characterized by informality, short-term contracts, low-wages and temporary work. This is aggravated by the fact that workers in the industry often face high work intensity and long working hours. When it comes to work for short-term rentals, it is necessary to distinguish between work that is outsourced to intermediary companies (i.e. short-term rental agencies) or to undeclared workers and work that is done by the hosts themselves. For the latter category, the amateur hosts, short-term rental often is not considered as work, but rather as an additional source of income, as indicated by the focus group discussion held in London (LO-INT-15) (see also (Altenried et al., 2021, pp. 61–67)).

Concerning the employment relations, interviewed experts in **Lisbon** suggest that temporary employment agencies are widely used in the tourism sector in general. In contrast, the standard employment relationship for workers in the accommodation industry in **Berlin** is full-time employment, but the extent of undeclared work in the sector is unknown and likely depends on the size of the companies. Employment relations in the accommodation industry in **London** have both, full and part-time contracts. Although salaries, working hours and duties are set in contracts, they are usually adjusted to meet the needs of the company: workers were offered bonuses if it was doing well, but were asked to do two shifts in a row when occupancy was low (LO-INT-14). Corporate social responsibility strategies, reducing the frequency of cleaning and towel washing, lead to serious reductions in the income of cleaners. Before the pandemic, cleaners' working hours and payments fluctuated according to the



season. After the pandemic, some hotels turned to self-hiring of cleaners (LO-INT-16). Although there were professional development opportunities and some training, contracts included very broad responsibilities that often workers did not have the experience, training or expertise to carry out and that legitimized redundancies or substitution by new workers once occupancy fell (LO-INT-14). Similarly, employment relationships in the accommodation industry in **Barcelona** characterized through part-time work and short-term contracts. Hotels tends to outsource work to intermediary companies or make use of temporary workers through agencies. For reception services and administrative tasks, it is common to hire interns. This translates into more instability for workers and a lack of security in terms of days, times and length of work and has contributed to deteriorating working conditions (Cañada, 2016). In the case of Barcelona, a change in labour law is discussed as a likely cause for further deteriorating working conditions for the outsourced workforce. This legislation was introduced in 2012 and companies are since that time allowed to negotiate company agreements and thus companies might pay outsourced workers below the sectoral collective bargaining agreements. These changes have particularly affected maids, as well as valets, housekeepers of the hotels, but also for waiters and the personnel in charge of maintenance and reception. Moreover, following the 2008ff financial crisis, access to bank credits got more difficult for the hotel and accommodation industry and as a result, hotels turned to international investment funds, which again increased pressure to cut costs. In **Paris**, the sector is moreover characterized by high labour mobility (turnover rates are from two to three times higher than in the rest of the economy). Fixed-term contracts in hospitality are more frequent than in other industries: 15% of cooks, 18% of employees and supervisors in the industry work on fixed-term contracts, whereas the percentage is 10% in the overall economy (Forté & Monchatre, 2013).

Statistical data from Eurostat provide indications regarding the payments made for agency workers in the accommodation industry. Figure 47 highlights the payments made in Euros in the category hotels and similar accommodation for agency workers at national level with large increases in spending in Portugal, UK, Spain and Germany and relatively stable payments towards agency workers in Estonia and Italy. No data was available for France. In Figure 48 the same payments towards agency workers are shown for holiday and other short-stay accommodation and reflects a similar trend with very large increases in payments in Germany, UK and Spain.



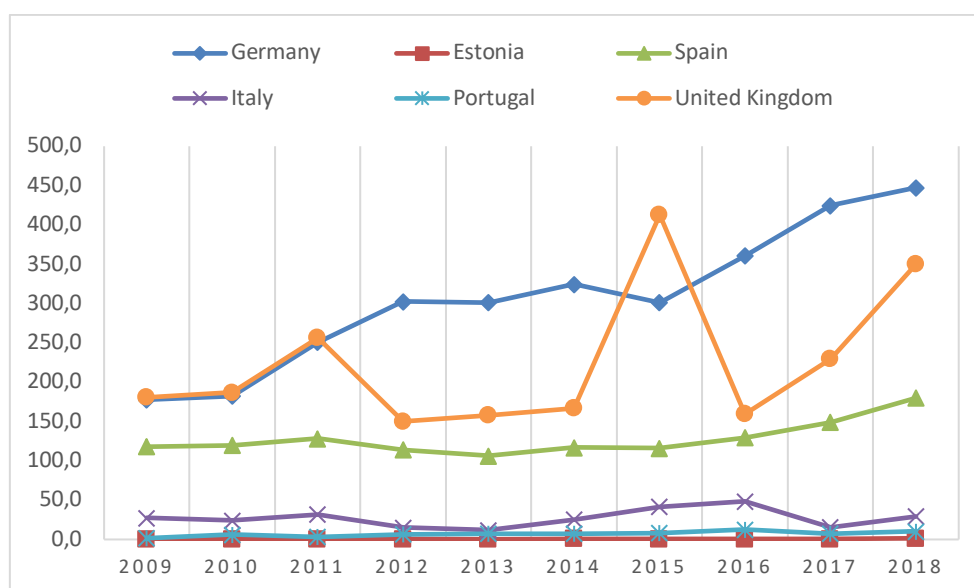


Figure 47. Hotels and similar accommodation. Payments for agency workers – in million euro. (Source: Eurostat Structural Business Survey [sbs_na_1a_se_r2])

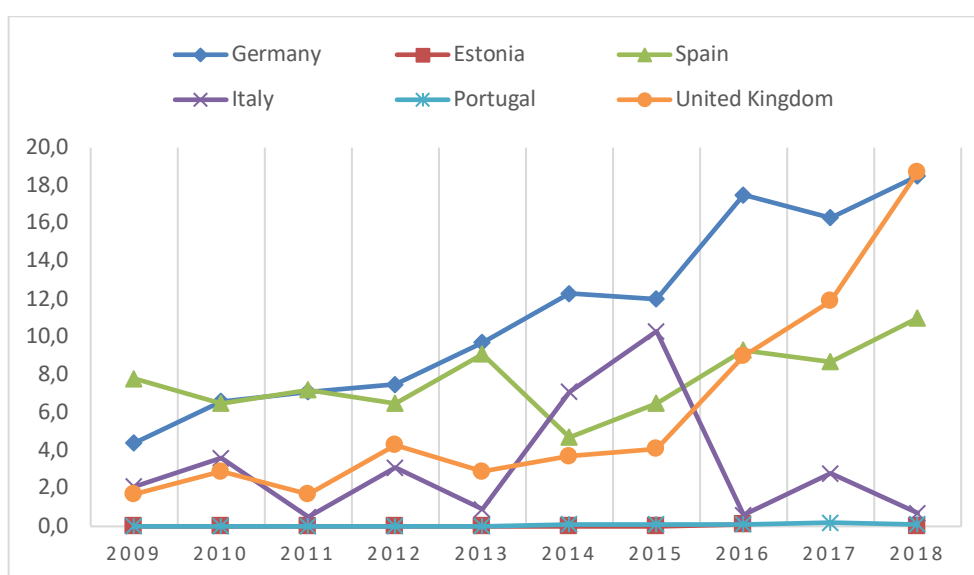


Figure 48 Holiday and other short-stay accommodation, Payments for agency workers in million EUR (Source: Eurostat [sbs_na_1a_se_r2])

Besides precarious employment relations the focus group discussants also stress other issues workers face in the industry: particularly common among workers in the accommodation industry is overwork and long working hours. In **Barcelona**, experts suggest that staff with seniority are laid off to reduce costs, which means in practice that fewer workers need to do more tasks in the same time. Work that cannot be finished during regular working hours has to be finished nonetheless.

“Currently contracts are for 4 hours, 5 hours. But my colleagues work 8 hours.” (BA-FG-5)

Likewise in **France**, long working hours are typical in the sector. Moreover, atypical working hours, such as night shifts and work on weekends are widespread. In Berlin, a large share of workers is working longer hours than they are contracted to.⁸⁶

Regarding the working relationships of staff working in the short-term rental industry, there are differences concerning the employment situation regarding the type of work to be carried out. For concierge services, such as check-in or check-out and for housekeeping activities, such as cleaning and changing towels or bed-sheets, the companies or hosts rely on workers with regular employment contracts. However, there seem to be inconsistencies, as fieldwork carried out for the project in **Lisbon** suggests that intermediary short-rental accommodation companies make extensive use of intermittent and part-time work, especially in the cleaning and check-in/check-out sectors. In a few cases this part-time jobs are regulated by a contract. In the majority of cases, it is undeclared work, paid directly per service. Problematic for work in the STR sector is that maids working to clean Airbnb rentals are more invisible and isolated and have less capacity to organize than workers in the traditional hotel industry. Employment conditions for (outsourced) workers in the short-term rental industry are also subjected to similar working conditions as workers in the incumbent hotel and accommodation industry. However, the necessity to carry out the work at multiple locations might aggravate the working situation further, as one participant of a focus group in Barcelona indicates:

“On these platforms, our colleagues have to clean 15 flats in 8 hours, located at different addresses. How do they do it? And carrying with them all the products.” (BA-FG-5)

Work in the accommodation industries is characterized by low wages. In **Germany** monthly wages before taxes vary between payments slightly above the minimum wage⁸⁷ with 9.80 EUR/hour (for a kitchen assistance) and 13,93/hour EUR (for head waiters).⁸⁸ Wages in the industry are subject to collective negotiation processes between the business association DEHOGA and the industry union NGG. Negotiation processes take place regionally for each state. As almost all accommodation companies in Germany are part of DEHOGA, collectively bargained wages are binding across the industry.⁸⁹ In **Spain**, wages in the hotel and accommodation industry took a hit after a law introduced in 2012 that allowed companies to pay outsourced workers below the sectoral collective agreements through separate

⁸⁶ <https://www.lohnspiegel.de/hotelfachleute-13909.htm>

⁸⁷ Minimum wage in Germany is 9.35 EUR/hour as of 2020. It presents a contrast to the threshold of a living wage in Germany, which studies suggest would be 12 EUR/hour; comp.

https://www.boeckler.de/pdf/p_wsi_report_55_2020.pdf

⁸⁸ <https://www.lohnspiegel.de/hotelfachleute-13909.htm>

⁸⁹ <https://www.dehoga-bundesverband.de/branchenthemen/tarifvertraege/>



enterprise agreements.⁹⁰ These changes particularly affected maids, as well as valets, housekeepers of the hotels, but also waiters and maintenance and reception personnel. Subcontracted workers, such as maids, earn between 30% to 40 % less than their internally employed counterparts and often earn the minimum wage. The financial crises of 2008ff and high unemployment rates put pressure on wages in Spain's hotel industry and as a result, workers hired after that time are paid less than workers hired earlier.

“The workers’ rights are not the same [between internal and external workers] and to earn the same amount, we have to work so much more to earn the amount of money according to the sectoral collective agreement.” (BA-FG-5)

The situation is similar in **London**, where cleaners’ incomes and working hours fluctuate according to occupancy levels and to seasonality. Corporate social responsibility strategies, reducing the frequency of cleaning and towel washing, lead to serious reductions in the income of cleaners. After the pandemic, some hotels turned to self-hiring of cleaners (LO-INT-16). Increasingly, working conditions that were common in the cleaning sector, are spreading in the entire tourist economy. In **Lisbon**, despite the high growth rates in tourism, the workforce faces increasing pressure on wages.

4.6.4 Impact of the Covid-19 pandemic

Without question, the pandemic and the subsequent restrictions on national and international travel hugely impacted on the hotel and accommodation and on the short-term rental industries. In Berlin, 787 accommodation companies (hotels, hostels and camping grounds) operated in 2019 and by the end of 2020 that number shrunk to 608 due to the outcomes of the pandemic. During the pandemic most hotels closed and sent their employees on furlough schemes (Spain, UK) or sent them into state subsidized unemployment (France, Italy).

“To this day, there are a lot of people on furlough. In Barcelona, if we talk only about hotels and aparthotels, there are around 100 that are open, that is about 25% of the sector. The impact has been total and recovery will be very slow.” (BA-FG-4)

In terms of national support, the **Italian** government supported the industry through unemployment benefits for all unemployed workers, including seasonal workers, who lost their job in a specified period. In addition, the local council propriety tax was ceased both for 2020 and 2021. Regarding financial supporting measures ‘partially unemployed’ employees are financed 100% by the state in **France**. On the business side, hotels have access to a ‘solidarity fund’ that goes up to 200.000 euros per month for the companies of the selected industries. Moreover, large companies have also received additional support for fixed costs

⁹⁰ This change of law also weakened union representation for external workers, due to favoring companies agreement over sectoral bargaining agreements and the separation of the personnel in internal and outsourced workers, full-time and part-time personnel, see also Cañada (2020)



and a state-guaranteed loan that allows companies to get a loan from their bank with a state guarantee has been introduced.

“We've been on a total aid drip for a year and fortunately the State has played its role as a shock absorber to avoid dramatic crises because we're in a sector that employs almost 3 million people, and which finds itself losing 60% of its turnover, which is dramatic in terms of employment. The real question for us is how to deal with the fact that the State will gradually withdrawing aid. Because we consider that we are a sector that will not automatically recover, at least until 2023 or 2024”. (PA-INT-3)

However, despite the state funding to help save the hotel industry, it can still translate into workers being laid off, as was the case in **Barcelona**:

“NH [hotel chain] has just received an ICO [official loan] and declared they will lay off three hundred people.” (BA-FG-5)

Experts in Paris stressed that the greatest impact of the health crisis on the sector was in Paris, since the city is much more dependent than the rest of France on business travellers who are today largely teleworking. The situation is expected not to normalize over the coming years, because business travels will not resume to the same level as prior to the pandemic, as working remotely from home is expected to be resilient.

In **London**, the combined impact of Brexit and the pandemic have caused a big blow on the hotel sector. According to the press, London is one of the UK's “tourism hotspots hit hard by Covid-19 jobs crisis” (BBC, 2021). During the pandemic, government restrictions, recommendations and lock downs have led to a sharp reduction of travel and tourism. The pandemic led to a further deterioration of working conditions with large scale redundancies and precarisation, even of workers who received the furlough. Wages dropped below minimum wage and very few remained at the London living wage levels (Interview 4). Workers who were kicked out of hotels were replaced by more zero-hour contracts or contracts that include permanent lay off clauses and cutting of wages and working hours without compensation. Often hotels used the fire and rehire strategy (LO-INT-16).

The situation in **Lisbon** highlights the complexity of a sector, where the degree of undeclared work is high. Therefore, it is challenging to reconstruct a detailed picture of the impact of the pandemic, particularly on the ancillary sectors. However, it must be stressed that, due to its high degree of undeclared work, workers of the ancillary services have been excluded from the public debate during the pandemic. In this scenario, ancillary service workers have found themselves completely unprotected due to the informality of their working conditions. Whereas, in the case of workers in the hotel sector, there have been very inadequate and time-limited protective measures in place.

The pandemic also had a negative impact on Airbnb causing numerous cancellations that initially Airbnb promised to reimburse in full, but later refused to (Neate, 2020). This created outrage and led to online protest by hosts who saw their income diminishing and their



prospects of recovery destroyed. In response, Airbnb reimbursed the cancellations, but announced personnel cuts and seized further refunding of cancellations caused by COVID-19 restrictions. There are no reliable data on the decrease in demand after COVID-19 in London, but properties listed for long-term rentals reported are rising, indicating that many hosts left the platform.

As a response to the Covid crisis, Airbnb has also updated its health and safety, leading to an increasing professionalization of domestic work and interaction between users on the platform. In the fieldwork it became evident that due to the pandemic, there is a general trend of conversion of flats in favour of medium to long term rentals. Again, however, it should be noted that while small and medium-sized tenants opt for this solution, large landlords generally do not issue leases longer than 6 months/1 year. The aim is to return to business as usual as soon as health conditions allow.

4.6.5 Impact on housing market

The development of tourism and especially short-term rentals impacts on the housing market and the potential revenues of hosts. Hence, concerning private short-term platform-mediated rental, notably Airbnb, cities have adopted several measures to mitigate the negative impact on housing prices and housing on offer and to raise additional revenues: On the one hand, tourist and city taxes have been introduced or expanded to short-term rentals. These city taxes may be free of charge (Tallinn, London) or cost 2 Euro/night (Lisbon) or up to 15% of the listing price (Paris).

4.6.6 Regulation

With the notable exception of Tallinn, all PLUS cities have introduced regulation for short-term rentals through a mandatory registration of the rental with city authorities. Besides this necessity to register the rental, some cities additionally limit the maximum number of days to rent out the premise (i.e.: 90-120 days a year). However, some hosts seem to operate their Airbnb venture at least partly informal, i.e.: they are not or only partly registering their hosting activities. Reasons may be that Airbnb does not require prove of any registration with the city or because of financial incentives of renting out for longer periods is high. Hence, an important prerequisite for the effective enforcement of registration would be the liability of Airbnb for their hosts' non-compliance with the regulations. The enforcement of the regulation is a crucially challenging issue for the cities, given the difficulty for the municipality to access the platforms' data:

“Most of what’s regulated on platforms can be perfectly analysed through data. But the problem is that this data belongs to the platform, and good luck if you think they will hand them to you.” (BA-FG-7)

Legislation in the cities is often decentralized and lies with the municipality, the regional or the national government. Generally, regulation approaches in the cities are usually accompanied by careful considerations as not to stifle the economically potent tourism



industry, but at the same time tackling urban problems such as mass tourism, gentrification or the loss of affordable housing.

In **Barcelona**, the hotel industry works closely with the municipality of Barcelona and the regional Catalan government to push regulations. One of these introduced regulation concerns a license number that every host need to apply for and that has to be published on the short-term rental platform. In addition, STRs are subject to a tourist tax. Furthermore, the Catalan tourism decree of August 2020 has maintained the existing regulation for the hotel sector and recognized for the first time the category of “llars compartidas” or home-sharing, for which previously no regulation existed that would allow or prohibit home-sharing. Only flats rented in their entirety (and not only a room as in home-sharing) were recognized by the law, being either legal when they had a license or illegal when they did not, which confirmed through the new act. Barcelona’s administration is still in the process of adapting it to this context. A focus group discussant from an STR association stresses the importance of legislative clarity that is needed to tackle short-term rentals:

“I agree there was an abuse of offers (...) which hurt all the sectors, it hurt the industry, it hurt STRs with a license and which have been operating for some time (...) But what we have to fight is the illegal offer, we can’t attack an offer that, despite being a legal up to now, was in a legal limbo. Because, well, the tourism decree of the Generalitat got approved but so far no ordinance was created.” (BA-FG-6)

On the issue of regulation of Airbnb and short-term rental platforms in **Berlin**, two forms of demands evolved from the perspective of incumbent industry associations and the general public. First, the demand of ‘fair competition’, mainly voiced by the accommodation industry and related to both tax obligations and safety standards that influence pricing on the market. Secondly, regulation of short-term rentals due to the commercialization of residential spaces which have become scarce in the last decade in Berlin, an issue that has been raised by tenant and renter associations as well as other social movements in the city. Both issues are to some extent tackled by the Misappropriation Ban Act (“Zweckentfremdungsgesetz”), which demands registration and limited use of private premises for short term rentals. Different from most other major cities in Germany, Berlin did not prohibit the commercial use of residential spaces until 2014. Although such regulation existed before, it was lifted in 2000 by a court due to vast number of empty houses in the city. As this situation changed rapidly to the opposite from 2010 on (and substantially through the spread of Airbnb), new regulation appeared necessary and was passed by the Senate administration for city development and housing in 2014 in the form of Misappropriation Ban Act, which was made more restrictive in April 2018. The Misappropriation Ban Act states that home sharers that rent out more than 49% of their apartment need a license, which can be acquired at the district authorities and must be displayed in online offerings too. In this case, license costs around 225 euro. Additionally, it is only allowed to rent out second homes for a maximum of 90 days per year. According to this regulation, all users of home-sharing platforms need to acquire a registration number at the local housing offices, which should be displayed in the online listings. If no license is issued and a flat is being found on Airbnb anyway the fine can be as high as 500.000 EUR. As it is difficult for the local housing offices (on a district basis) to control and identify



holiday flats, the department of housing has developed an online procedure, through which neighbours can “denounce” illegal holiday flats. The license aims at commercial Airbnb hosts, hoping to rise the quota of flats permanently available for Berlin residents. For this type of rental another license needs to be issued which costs between 220 and 300 EUR and the allowed renting period a year is also limited to 90 days. As of August 2020, only 17 percent of all Airbnb offers in Berlin had a registration number.⁹¹ According, to experts interviewed, there has been at least partial success in regulating Airbnb in Berlin, which also led to significantly less listings on the platform. An important means for the Senate administration to better control and enforce regulation is to have access to Airbnb’s host data, an issue which is at the moment negotiated on a European level.

In **Bologna**, hotels, bed & breakfasts, private apartments and all the other types of short-term rentals are regulated through a regional regulation. However, similar to the situations in Barcelona and Berlin, a major problem poses the execution of the legislation. According to interviewed experts in Bologna there are around 1.800 touristic accommodations regularly registered, while there are around 4.000 Airbnb active listings, meaning that more than half of the accommodations are not formally registered with the city.

The regulation of short-term rentals through platforms in **Lisbon** include the registration and licensing by the municipality. In addition, there is a system of quotas which determines that in specific neighborhoods or areas short-term rentals must not exceed 25% of total accommodation. Furthermore, hosts of short-term rentals need to obtain the consent of all other inhabitants of a building before offering their premises on a STR platform. Again, the effectiveness of the legislation also depends on the means to enforce the law. The quota system is critically assessed as ineffective by local groups that aim to foster the right to housing. The main argument is that the short-term rentals continue to produce the relocation of inhabitants to the suburbs by extending the process of gentrification to other areas. Accordingly, the quota system should be extended to the whole metropolitan area. On the other hand, the quota system is also criticized by companies offering concierge services for STRs, because the quotas inhibit new investments in the sector. This position is generally accompanied by a narrative describing the transformations brought about by the development of the tourism sector in a very positive way.

London has one of the most liberal regulations in regard to short-term rentals, despite the fact that it has worsened the problem of affordability that residents are facing influencing the crisis of rentals, rent inflation, homelessness, and housing precarity. In 2015, the Deregulation Act gave hosts the freedom to rent out their properties for up to 90 days a year without special permit. If they exceed this period of rentals, hosts need to apply for a planning permission to convert their homes into hotels or face severe fines of up to £20.000. However, of all the short-term rental platforms operating in London, only Airbnb has introduced an automatic 90 days hosting limit. Local councils have faced severe difficulties in the implementation of the

⁹¹ https://www.rbb24.de/wirtschaft/thema/2020/coronavirus/beitraege_neu/2020/10/airbnb-wohnungen-vermietungen-anstieg-corona-berlin.html



Act as it is very difficult for them to check number of days that a listing appears in different platforms, including Booking.com, HomeStay, Hostmaker, FlipKey, or Tripadvisor (LO-INT-15). Airbnb has been the most responsive of platforms to the demands of local governments and has made sure to cooperate but also intervene in local politics. The hotel industry is pushing for regulation. However, the question of data transparency and openness remains a crucial one for local authorities. There are local groups of officers gathering data through data mining techniques, including checking automated systems, reviews, photos, bookings, geolocation, and monitoring revenue from short-term rentals. This is, however, a complicated process because platforms do not make data available and hosts find ways to evade the system, which recommences every year (LO-INT-15). National and local media have reported frequently that short term rental companies by-pass or ignore the 2015 Deregulation Act. Companies specialising in short-term rentals in particular are aware of the limitations that councils face in the implementation of these regulations. In 2019, the Mayor of London admitted that the 2015 law is near-impossible for councils to enforce and called on the Government to introduce a new voluntary registration system for hosts in order to implement effective controls on short-term rentals in London. In a letter to the Secretary of State for Housing, Communities and Local Government co-signed by several councils of central London, the Local Councils Association and Airbnb, the Mayor affirmed his commitment to offering guests accommodation, giving at the same time the opportunity to locals to increase their income and to meet new people, while also protecting long-term rentals and prevent high tourist turnover (Mayor of London, 2019).

The **Paris** City Council implemented measures to regulate Airbnb, including a mandatory registration number for Airbnb listings (Altenried et al., 2021, p. 548), which aim to reduce the platform's impact on the real estate market and on housing. Moreover, the incumbent hotel and accommodation industry are lobbying for further regulation and taxation of the STR providers. In January 2017, for example, 800 hotel and tourism professionals in France made a complaint to oppose the practices of short-term rental platforms. They criticize unfair competition, mainly because Airbnb is not subject to the same standards for safety and hygiene.

4.6.7 Conclusions: Airbnb and hotel and accommodation sector

The hotel and accommodation and the short-term rental sectors have been in the past decade heavily influenced by the surge of tourism in all PLUS cities under consideration. A closer look shows that particularly short-term rentals have experienced a remarkable growth during that time span. Contentious issues between the incumbent companies in the hotel and accommodation industry are *double standards* regarding safety and hygiene regulations that apply to hotels, but not to short-term rentals through platforms. And it would be intuitive to infer that the emergence of short-term rental platforms has had major effects on hotel and accommodation companies due to increased competition. Interviewees and focus group discussants stress that an issue emerging in the sector is the rising pressure on the incumbent industry by online booking platforms (such as booking.com) that drive down prices and leave established hotels little room for manoeuvre their bookings (and prices).



A defining characteristic of the sector concerns the practise of outsourcing services that are not core to the accommodation provision, i.e., ancillary services to reduce costs and, in case occupancy is low, to have fewer permanently employed personnel. The outsourcing of such ancillary services started many years ago and encompasses most prominently laundry services. Large establishments make extensive use of outsourcing, while smaller companies may provide the services in-house. Outsourcing is also prevalent in short-term rental, either through external providers, sometimes similar providers working for larger hotels, but also through undeclared work. The activities outsourced include cleaning, laundry and maintenance. The management, advertisement of rental premises, on-site customer interaction or key services may also be outsourced and potentially hint at a professionalisation of the short-term rental sector.

Very similar to the other sectors under review in this report, poor working conditions prevail in the hotel and accommodation industry. Employment characterized by informality, short-term contracts, low-wages and temporary work likely correlates with the extensive use of outsourced labour in the sector. Working conditions additionally often feature long working hours and high work intensity. The extent of undeclared work in the sector is unknown.

The outbreak of the Covid-19 pandemic and consequently the restrictions to travel and mobility have had without a doubt severe effects on the accommodation industry as a whole, as most economic activity in the hospitality sector came to a standstill. National governments answered this situation by supporting the industry through various measures, such as providing an unemployment scheme for all affected workers, who lost their job during the pandemic; subsidizing businesses and/or giving out loans; or sending workers on furlough. Often these measures negatively affected the working conditions, especially the income of the workers. As these supporting measures only apply to declared workers, undeclared workers are particularly negatively affected by the situation. Hosts on the other hand might have pulled their flats from Airbnb and offered them on the medium- and short-term rental market.

Regulations of the short-term rental market exist in six of the seven cities under review and with the exception of Tallinn the cities implemented actions ranging from the mandatory registration of the rental with city authorities, to limiting the maximum number of days a premise might be rented out per year and a restriction of how many flats might be offered as short-term rentals in a particular city district. A license is typically only required when most or all of the premise is rented out. Generally, enforcement of regulations is posing a challenge for the cities, as it is difficult to identify non-registered short-term rentals. Besides, it is near impossible for city authorities to monitor the number of days a flat is rented out per year.



5. SUMMARY AND CONCLUSION

This report has two objectives: first, to give an overview over the quantitative dimension of platform labour, both in terms of demand for platform-mediated services at city level and in terms of labour supply and its characteristics. This was done by implementing an online survey in the seven PLUS cities exploring customer demand both for platform-mediated services and for their brick-and-mortar equivalents in cleaning, passenger transport, touristic accommodation, and food delivery. Thus, the survey complements the qualitative findings related to the labour process, working conditions, labour struggles and social protection of platform workers.

Second, sectoral platforms navigate in a sectoral field where other companies are already operating. Sectoral or lean platforms enter a market that might have been dominated by incumbent companies, and that has been regulated for several purposes: sectoral collective agreements prepare a level playing field for employees and employers active in a specific sector; industry regulations regulate access to the market, the prerequisites and standards for service provision; other urban and public policies impact on the demand for these services from a customer's perspective. To contextualise platforms' operations, we searched for comparable secondary Eurostat and municipal data that showed how related industries have developed in the last decade. Helping was related to domestic work and cleaning; Airbnb to hotel and short-term accommodation; and Uber to the taxi industry. With food delivery the allocation to a sector was difficult, as Deliveroo and similar platforms can be related to restaurants on the one hand and delivery (as part of transport or postal and courier services) on the other hand. Moreover, food delivery riders encompass only a very small portion of overall delivery. To understand and assess the quantitative trends in the four industries, industry experts at city and European level were interviewed.

In this last section, we summarise main research findings and draw some conclusions about the four platforms' impact on the related industries, and the other way round, the impact of industry regulation, including labour regulation, on platforms' operations.

1. Platforms have become important alternatives to established suppliers

The survey data show, that platforms for taxi services and food delivery have established themselves as an alternative to conventional suppliers in the cities analysed in PLUS, with evidence of platforms being already equally or more popular than other service providers in some cities. Sectoral platforms like Uber in Tallinn are the most striking example: 73% of respondents indicated to use Uber and similar platforms for private passenger transport services whereas only 42% of respondents use traditional taxis. On the other hand, platforms for domestic services are still clearly behind conventional service provision across all cities. Nevertheless, as a recent study by ILO (2021) revealed, the number of platforms active in domestic services surged in the last decade, while direct employment by households and employment through traditional domestic service providers still compose the majority of this service provision.



The survey data show that the pandemic has potentially increased the gap between the recurrence to platforms like Helpling and platforms for taxi services and particularly food delivery. The latter has profited from the lockdowns resulting in the closing of restaurants, while the demand for household services plummeted following the Covid-19 contact restrictions (Chicchi et al., 2020). For Airbnb and similar platforms, the data don't allow for an evaluation of the domestic markets in the seven cities.

Regarding factors potentially influencing the use of platforms in the customer role, digital literacy operationalised as intensity of online activity came out as the most important factor across (almost) all platform types and cities in linear regression models, followed by age; there is also evidence for judgements about service quality being relevant for deciding between platforms and conventional service provision; social background is only relevant for platform use in some of the cities.

2. Platform labour is a part-time and discontinuous job phenomenon

While it is difficult to assess the magnitude of respondents indicating activity through the four platform types (there being no suitable reference point like the number of respondents being employed in conventional service provision, or the overall volume of work in service provision with and without platforms), the numbers for weekly activity are predominantly low across cities and platform types, with the comparatively highest ones occurring for food delivery platforms; in comparison, the percentage of infrequent activity is markedly higher, highest again for Deliveroo and similar platforms. This can be seen as one of several hints in the survey data at the status of activity through platforms being predominantly a supplementary one. Other hints include the average weekly hours spent for activity through platforms that is below or around ten hours for weekly active respondents across all platform types and the typical timing of these activities (weekends and off-peak hours being most frequently mentioned). Moreover, the majority of respondents across all platform types indicated that they complement their main job with regular or occasional activity through platforms.

The impact of the pandemic on the level of activity through platforms varies by platform type: While activity through Helpling and similar platforms decreased between before and after the first Covid lockdown, the amount of decrease and increase is about equal for platforms like Uber, and platforms like Deliveroo and Airbnb are characterised by increased activity after in comparison to before the first lockdown.

3. Working conditions in platform labour are less favourable than in main jobs, but not by a large margin

The analysis of the online survey also allows to contrast working conditions of platform workers with working conditions in other jobs. In terms of self-determination at work (i.e., if respondents can choose or change the order of their tasks, the methods of their work and the speed or rate of their work) the majority of respondents confirmed to have some discretion in the work process, with the percentage for main jobs consistently higher than for the platform job (ranging from 14 percentage points for the speed or rate item to 18 percentage points regarding the possibility to change the methods of work). As for other working



conditions (support at work, consultation at work, job satisfaction, sufficient breaks, bringing in own ideas, expectations at work), an index comprising all items of the questionnaire was created ranging between a value of 0 to 1, 1 indicating very good and 0 indicating poor working conditions. Overall values for the main jobs are better than for platform activity in all cities, but the margin is not big with the highest difference occurring in Tallinn (0,58 against 0,40), the smallest in Lisbon (0,51 against 0,47). On the level of individual items, the biggest difference between main jobs and activity through platforms is observed for the item pertaining to clear expectations at work, followed by support by colleagues; on the other end, the least difference occurs for being consulted before objectives are set, followed by involvement in improving the work organisation – for both items, agreement is rather low for both main jobs and platform activities.

In addition, four items on surveillance by superiors and being rated by customers were included. As expected, agreement to these items is clearly higher for activity through platforms than for main jobs, with the exception of the possibility to object to unjustified ratings, agreement to which is equally low for both categories.

4. The impact of the platform differs from industry to industry

The platforms' market entrance has had very diverse impacts on the respective sectors. While the increased competition in passenger transportation through platforms' activities severely affected taxi businesses in all cities under review, in other sectors the competition was not experienced as fierce. From an incumbent perspective, Uber and the ride-hailing business are perceived as a major competitor and are putting pressure on prices and on the deregulation of the industry. In traditional taxi services, prices are fixed, while Uber and other platforms active in this industry operate with dynamic pricing. With Covid-19, the situation for taxi drivers and companies has even worsened as due to closures and lock-downs, tourism and mobility in general collapsed and demand for private passenger transport decreased significantly.

In cleaning, the platform company Helpling is not yet well established in the sector and in its biggest market Germany only about 10.000 people are working through the platform according to the company's indication while more than 300.000 mini-jobs and 47.000 full-time or part time employed domestic workers were reported for the sector. As up until now Helpling predominantly is active in domestic cleaning and only in the UK expanded towards office cleaning, incumbent service providers, especially professional cleaning companies active in building maintenance might not be affected by the platform. However, Helpling announced to expand its activities also to office cleaning⁹².

Overall, the demand for cleaning services has expanded, both in industrial cleaning due to the outsourcing of this business function to external service providers and in private households due to socio-demographic and socio-economic trends, notably the rise of female labour

⁹² <https://www.helpling.de/helpling-acquires-business-tiger-facility-services>



market participation and higher life expectancy in combination with the need for care and domestic services. Hence, platforms offering the intermediation of cleaning personnel enter a market that is far from saturated.

Regarding the hotel and accommodation industry, the market entrance of Airbnb certainly increased the pressure on prices in a certain segment of overnight stays, but because of increasing city tourism the incumbent hotel and accommodation industry also recorded higher overnight stays. Supposedly, booking platforms, such as booking.com are experienced as a larger problem, as these make it easier for the customer to directly compare rooms and prices and thus strongly influence the pricing policies of hotels.

Finally, for food delivery services the platforms' market entrance mostly affected delivery riders employed with restaurants.

5. Incumbents and platforms adopt new business strategies

Platform companies and incumbent companies have adopted new business strategies to cope with a changing sectoral environment. Crucially, platform companies seem to diversify their activities: most notably, Deliveroo over the past years established a number of so-called dark kitchens, a franchising system where food is prepared specifically for Deliveroo. These kitchens might be housed in industrial areas or containers, where the rent is cheaper than in the city centers. This allows the food delivery platform to gain more control over the restaurants, which are fully dependent on the platform as their only means of selling the prepared food. In practice, this also entails higher fees the platform charges from these franchises. Conversely, this franchising system is likely increasing competition on traditional restaurants. As these kitchens are still few in number, the effect on restaurants might be rather small, as of yet. A second diversification strategy in delivery and logistics concerns the branching out towards the distribution of parcels and express services through bicycles following the trend of environmentally friendly delivery. This also falls in line with delivery platforms' increasing activity in home delivery of grocery shopping. Certainly, these trends potentially are related to the Covid-19 pandemic and it is questionable, if these trends continue in the coming years.

In the case of passenger transportation, traditional taxi companies adopt strategies and technologies used by the platforms: online apps for booking a ride with a traditional taxi is broadly available. Also, taxi companies are incentivized to modernize their fleet towards green technologies. Regarding the hotel and accommodation sector, online booking platforms emerged as a cornerstone even for traditional hotels. These platforms are a major challenge as the easy price comparison puts downward pressure on the incumbent industry.

6. Employment conditions in the sector: notoriously bad

The trend of working conditions perceived as rather poor, is backed by the qualitative research done in the PLUS cities (Altenried et al., 2021). In concrete terms, the level of pay is comparably low, long working hours are common and the employment situation is frequently characterized by (bogus) self-employment, undeclared work and by a lack of social security.



However, it is crucial to note that the working conditions typically were poor and often precarious even prior to the platforms' market entrance. An important feature of both sectoral platforms and traditional service providers in these industries is what Weil (2014) identifies as the "fissured workplace", that is shedding responsibility for workers to outsourced entities by franchising agreements, subcontracting, the use of temporary work agencies or long supply chains. Sectoral platforms exacerbate the organization of the fissured workplace.

- The cleaning sector is characterized through female and (undocumented) migrant work, and especially in domestic cleaning undeclared work prevails. The more professionalized cleaning industry in office and industrial cleaning and maintenance makes extensive use of temporary agency work. Low payment, multiple employers, and discontinuous working hours are rather common in both jobs (industrial cleaning and domestic cleaning). In the case of domestic work, a double standard between employees in all other sectors and those working for private households concerning labour legislation is still the norm.
- In passenger transportation, the employment situation of taxi drivers was dominated by self-employment, independent contracting and precarious work already before Uber entered the field. Moreover, the traditional closed taxi market is not always to the benefit of taxi drivers. Those who are "inside" do have advantages as competitors are limited by a quota. Those "outside" need to bear considerable costs to enter. Platforms have opened up possibilities for taxi drivers to circumvent this closed system or to supplement it by subscribing to a platform.
- Similarly, employment in the hotel and accommodation sector is typically characterized by informality, short-term contracts, low-wages and temporary work. This apparently is connected to the high levels of outsourcing of ancillary services in the sector, which has been a common practice in the sector for decades. The hotel industry operates with franchising of trademarks and recruits temporary workers both from temporary employment agencies and on a seasonal basis. Airbnb resembles franchising in a way, as suppliers (hosts) use the trademark 'Airbnb' to gain access to customers and Airbnb specifies comparable standards, modes of payment and review possibilities.
- Finally, the food delivery sector shows some novelty regarding the working conditions. With a narrow view on merely the delivery of food, which was usually carried out by drivers, they were mostly employed by the restaurants. In the broader delivery industry, independent contracting is the most widespread type of employment, with transport, postal or logistics companies (e.g., Amazon) outsourcing the door-to-door delivery. Deliveroo falls in a niche of food delivery where self-employed riders prevail. Moreover, franchising becomes more important here when Deliveroo cooperates with so-called 'dark kitchens' and imposes strict and standardised terms of service provision to restaurants (e.g. what recipes to use).

7. Effect on employment conditions due to platforms: from small to significant



Looking at the working conditions in all the PLUS sectors examined, cleaning platforms might have the least disruptive impact on the employment situation of the incumbent sector. Helping operates with self-employed workers who – depending on the city – are sometimes registered as independent contractors. However, the extent of people working through cleaning platforms as of yet is simply too little to have a positive, for instance by incentivizing employers to formalize undeclared work, or negative, by further driving down prices, effect on the cleaning sector on a broader level.

As for ride-hailing drivers and taxi drivers, the picture is hazy: while on the one hand platforms instigated competition and put a pressure on prices (which likely affects the workers' pay), recent court decisions and national and municipal sectoral regulation, forces Uber to increasingly hire sub-companies employing drivers with formal labour contracts. In theory this aims at preventing precarious work, often, however, it merely reproduces the precarity of the freelancing model and turns the bogus self-employment into a bogus employment, where the precarious employment conditions are prolonged under the legal umbrella of formal employment.

8. Undeclared work – do platforms alleviate or foster?

Platforms are said to help formalizing employment for jobs where undeclared work prevails such as in domestic cleaning. Formalisation takes place because workers have to register online and are visible on a website for hiring. However, a central question remains: do platforms contribute to formalizing domestic work and do they improve domestic workers' social protection and working conditions? Digitalisation may provide new avenues for domestic workers and cleaners to search for employment and become more independent from agencies and personal contacts. Moreover, platforms could establish minimum guarantees and standards, such as monitoring of working time, filtering clients, setting hourly payments. On the downside, the increased use of digital means to track workers and rate their performance seem to entail one-sided benefits for customers (and platforms). On top, platforms that hire domestic workers as independent contractors could undo progress in the formalization of domestic work by diminishing legal rights and protections. It opens up new opportunities to precarious employment instead of better valorising this kind of work. Hence, formalisation in terms of declaring work might take place but only in terms of establishing again precarious, unstable, non-committal working arrangements.

In food delivery, the entrance of platforms has increased precarious and undocumented work in that sector. The latter is mainly linked to the sharing or “subletting” accounts that workers can sustain on online delivery platforms, a practice that is expanding rapidly for instance in Paris. Some riders have started to rent out their accounts to one or several riders, for example to undocumented migrants, who might not have working permits and thus no access to this kind of work and are not allowed to open their own account. Then, working for platforms becomes informalised, and formal assignments carried out for delivery platforms mingle with the grey economy.

In short-term rental and Airbnb, we close the circle again to cleaning private homes. Of course, cleaning private accommodation for short-term rental purposes is a key service for providing



short-term rentals. At least for non-professional hosts, cleaning stays in the private sphere and in the private household, although it is undertaken for commercial purposes (for renting). Similarly, other ancillary services, such as building maintenance or laundry services are carried out by undeclared workers and the non-declaration remains undetected. Employment relations remain, as the PLUS research reveals, precarious and are often carried out on an informal basis. When it comes to more professional hosts, or smaller hosts who hire companies for the property management, the subcontracting and outsourcing of ancillary services are common, which resembles the practices of the incumbents in the sector.

9. Noteworthy industry-specific regulations, both in terms of market access, employment and demand management exist

Finally, we identified noteworthy regulations at industry level that impact highly either on labour standards and working conditions or on market access and industry standards, as well as on establishing a level playing field among incumbents and platforms in the respective industry. This last point clearly shows that policies have an effect – both negative and positive – on the quality of services and the quality of work in the industry, including the platform-mediated service provision.

Subsidising domestic work

In regulating employment, it is also the state playing a crucial role in initiating rules for cleaning and domestic work in private households. If platforms diminish undeclared work in the sector is highly contested. However, it is proven that undeclared work declines if tax reductions or other subsidies such as service cheques are implemented to incentivise the formal employment of a domestic worker. Even platforms proponents suggest such policy initiatives to stay in business and competitive to the informal sector.

Taxing and curtailing short-term accommodation

For private short-term platform-mediated rental, notably Airbnb, cities have adopted several measures to mitigate the negative impact on housing prices and housing on offer and to raise additional revenues: On the one hand, tourist and city taxes have been introduced or expanded to short-term rentals; they cost 2 Euro/night (Lisbon) or up to 15% of the listing price (Paris). On the other hand, with the notable exception of Tallinn, all PLUS cities have introduced regulation for short-term rentals through a mandatory registration of the rental with city authorities. Some cities additionally limit the maximum number of days to rent out the premise (i.e.: 90-120 days a year) or introduced quota of tenements to be rented out per city or borough.

Case law confirms employment status in transport industry

Both lean platforms Deliveroo and Uber provide typical transport services and principally wish to classify their riders/drivers as self-employed, contract workers, independent workers, freelancers – depending on the respective possibilities in national legislation – and to consequently deny regular employment that would entail social insurance and labour rights.



In PLUS cities, notably London, Paris, Bologna and Barcelona, case law was and is an important regulatory mechanism to decide about platform workers' employment status. Court cases were fought up to the supreme court. In Spain, for instance, the supreme court found that Glovo, a competitor of Deliveroo, was "not a mere intermediary" between restaurants and delivery riders, but instead "a business that fixes the conditions for the provision of its services" and owns the assets essential to carrying out its services, notably the smart phone app⁹³. Another Supreme Court ruling in the UK urged Uber to classify its drivers as workers and grant them labour protection that goes along with this status. This means for platform work "the employment relationship remains a paramount institution in delivering workers' protection" (De Stefano et al., 2021, pp. 41–42).

As for platform-mediated cleaning, such court decisions are not known. Only in a Dutch ruling, the platform intermediating the domestic work was not accepted as one merely matching supply and demand but as a temporary staffing agency. In domestic cleaning, a noteworthy way forward to tackle precarious work in platform-mediated domestic work is the conclusion of a collective bargaining agreement offering cleaners the right to employment: In 2018, the Danish union 3F concluded the first collective bargaining agreement (CBA) for cleaners working via platforms. It established a new category of worker: after 100 hours of work, freelancers are automatically treated as employees covered by CBA, unless they *actively* opt out of this status. Protections provided by the CBA are minimum wage, sick pay, rules on cancellation of shifts, and the provision for data protection, including the right to remove inappropriate comments from the platform.

⁹³ https://english.elpais.com/economy_and_business/2020-09-24/spanish-supreme-court-rules-food-delivery-riders-are-employees.html



6. REFERENCES

Aloisi, A. (2020). Hierarchies without firms? Vertical disintegration, outsourcing and the nature of the platform. *Quaderni Del Premio «Giorgio Rota»*, 8, 11–32.

Altenried, M., Bojadžijev, M., Chicchi, F., Frapporti, M., Marrone, M., Niebler, V., & Pirone, M. (2021). *Final Report on impact of technologies on workers and labour process in the platform economy* (PLUS D 2.3 Final Report).

Anderson, B. (2000). *Doing the dirty work. The global politics of domestic labour*. London/New York: Zed Books.

Appelbaum, E., Bosch, G., Gautié, J., Mason, G., Mayhew, K., Salverda, W., ... Westergaard-Nielsen, N. (2010). Chapter I: Introduction and Overview. In Jerome Gautie & John Schmitt (Eds.), *Low-Wage Work in the Wealthy World* (pp. 1–32). New York: Russell Sage Foundation. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1066580&site=ehost-live>

ArbeitGestalten. (2017a). *Branchenreport Gebäudereinigung – Arbeitszeiten und Arbeitsverhältnisse*. Berlin. Retrieved from <https://www.arbeitgestaltengmbh.de/assets/Uploads/Broschuere-B Branchenreport-GebRein.pdf>

ArbeitGestalten. (2017b). *Der Job als Gig. Digital vermittelte Dienstleistungen in Berlin*. Berlin. Retrieved from <https://www.arbeitgestaltengmbh.de/assets/projekte/Joboption-Berlin/Der-Job-als-Gig-Expertise-Digital-November-2017.pdf>

ArbeitGestalten. (2020). *Gigwork in Betreuung und Pflege. Digital vermittelte soziale Dienstleistungen in Berlin*. Berlin. Retrieved from <https://www.arbeitgestaltengmbh.de/assets/projekte/Joboption-Berlin/Expertise-Care-Gigwork-Web.pdf>

Baronian, L. (2020). Digital Platforms and the Nature of the Firm. *Journal of Economic Issues*, 54(1), 214–232. <https://doi.org/10.1080/00213624.2020.1720588>

Barrios, J., Hochberg, Y. V., & Yi, H. (2019). *The Cost of Convenience: Ridehailing and Traffic Fatalities* (No. Working Paper 2019-04). University of Chicago.

Bauer, G., Haidinger, B., & Österle, A. (2014). Three Domains of Migrant Domestic Care Work: The Interplay of Care, Employment and Migration Policies in Austria. In B. Anderson & I. Shutes (Eds.), *Migration and Care Labour: Theory, Policy and Politics* (pp. 67–86). Palgrave Macmillan.

BBC. (2021). Tourism hotspots hit hard by Covid-19 jobs crisis. Retrieved from <https://www.bbc.com/news/uk-56127385>



- Benítez-Aurioles, B. (2019). Is Airbnb bad for hotels? *Current Issues in Tourism*, 1–4. <https://doi.org/10.1080/13683500.2019.1646226>
- Blal, I., Singal, M., & Templin, J. (2018). Airbnb’s effect on hotel sales growth. *International Journal of Hospitality Management*, 73, 85–92. <https://doi.org/10.1016/j.ijhm.2018.02.006>
- Cañada, E. (2016). *Externalización del trabajo en hoteles. Impactos en los departamentos de pisos*. Barcelona: Alba Sud Editorial.
- CEPS, EFTHEIA, & HIVA-KU Leuven. (2020). *Study to gather evidence on the working conditions of platform workers*. Brussels: European Commission DG Employment, Social Affairs and Inclusion. Retrieved from <https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8280>
- Chagny, O. (2019). Les enjeux de la régulation sectorielle. *Chronique Internationale de l’IRES*, 168(4), 8–28.
- Chicchi, F., Frapporti, M., Marrone, M., & Pirone, M. (2020). *Covid-19 impact on platform economy* (PLUS Report).
- Choi, K.-H., Jung, J., Ryu, S., Kim, S., & Yoon, S.-M. (2015). The relationship between airbnb and the hotel revenue: In the case of Korea, 8. <https://doi.org/10.17485/ijst/2015/v8i26/81013>
- Colliers & The Hotel School of the Hague. (2018). Airbnb in Europe. Major Cities compared.
- Copenhagen Economics. (2018). *Main developments in the postal sector (2013-2016)*. (Study for the European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs). Brussels. Retrieved from <https://publications.europa.eu/en/publication-detail/-/publication/d22799b5-bbb7-11e8-99ee-01aa75ed71a1/language-en/format-PDF>
- Crouch, C., Schröder, M., & Voelzkow, H. (2009). Regional and sectoral varieties of capitalism. *Economy and Society*, 38(4), 654–678. <https://doi.org/10.1080/03085140903190383>
- De la Silva, N., Granada, L., & Modern, D. (2019). *The unheard workforce: Experiences of Latin American migrant women in cleaning, hospitality and domestic work*. London: Latin American Women’s Rights Service (LAWRS) and Trust of London. Retrieved from https://lawrs.org.uk/wp-content/uploads/2020/11/Unheard_Workforce_research_2019.pdf
- De Stefano, V., Durri, I., Stylogiannis, C., & Wouters, M. (2021). *Platform work and the employment relationship* (ILO Working paper No. 27). Geneva: ILO. Retrieved from http://www.ilo.org/global/publications/working-papers/WCMS_777866/lang--en/index.htm
- Deloitte. (2019). Delivering growth: the impact of third party platform ordering on restaurants.



Dijck, J. van, Poell, T., & Waal, M. de. (2018). *The Platform Society. The Platform Society*. Oxford: Oxford University Press. Retrieved from <https://oxford.universitypressscholarship.com/view/10.1093/oso/9780190889760.001.0001/oso-9780190889760>

Doellgast, V., Lillie, N., & Pulignano, V. (Eds.). (2018). *Reconstructing Solidarity: Labour Unions, Precarious Work, and the Politics of Institutional Change in Europe*. Oxford, New York: Oxford University Press.

Drahokoupil, J., & Jepsen, M. (2017). The digital economy and its implications for labour. 1. The platform economy. *Transfer: European Review of Labour and Research*, 23(2), 103–107. <https://doi.org/10.1177/1024258917701380>

Drahokoupil, J., & Piasna, A. (2017). Work in the Platform Economy: Beyond Lower Transaction Costs. *Intereconomics*, 2017(6), 335–340.

Dunaway, W. (2014). *Gendered Commodity Chains. Seeing Women's Work and Households in global Production*. Stanford: Stanford University Press.

Ehrenreich, B., & Hochschild, A. R. (2003). *Global woman. Nannies, maids and sex workers in the new economy*. London: Granta.

Enste, D. (2019). *Haushaltshilfe: Keine Entlastung in Sicht* (iw-Kurzbericht No. 42/2019). Institut der deutschen Wirtschaft. Retrieved from https://www.iwkoeln.de/fileadmin/user_upload/Studien/Kurzberichte/PDF/2019/IW-Kurzbericht_2019_Haushaltshilfen.pdf

Esbenshade, J., & Shifrin, E. (2019). The Leased Among Us: Precarious Work, Local Regulation, and the Taxi Industry. *Labor Studies Journal*, 44(3), 193–213. <https://doi.org/10.1177/0160449X18768047>

Eurofound. (2015). *Representativeness of the European social partner organisations: Road transport and logistics* (p. 88). Luxembourg: Publications Office of the European Union. Retrieved from https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1506en.pdf

Eurofound. (2017). *Representativeness of the European social partner organisations: Postal and courier services* (p. 88). Luxembourg: Publications Office of the European Union. Retrieved from https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1661en.pdf

Eurofound. (2018). *Representativeness of the European social partner organisations: Hotels, restaurants and café (HORECA) sector* (p. 88). Luxembourg: Publications Office of the European Union. Retrieved from



https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef18063en.pdf

Eurofound. (2019). *Representativeness of the European social partner organisations: Industrial cleaning sector* (p. 112). Luxembourg: Publications Office of the European Union. Retrieved from

https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef19012en.pdf

Eurofound. (2020). *Working conditions in sectors*. Luxembourg: Publications Office of the European Union. Retrieved from

https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef19005en.pdf

European Commission. (2020). *Undeclared Work in the European Union - Summary* (Special Eurobarometer 498 – September 2019 “). European Union. Retrieved from <https://europa.eu/eurobarometer/>

European Federation for Services of Individuals. (2018). *PHS Industry Monitor*. EFSI. Retrieved from http://www.efsi-europe.eu/fileadmin/MEDIA/publications/2018/PHS_Industry_monitor_April_2018.pdf

European Federation of Food, Agriculture and Tourism Trade Unions. (2015). *Domestic workers in Europe. Getting organised!* Brussels: EFFAT. Retrieved from https://www.effat.org/wp-content/uploads/2018/11/effat_booklet_domestic_workers_in_europe_en.pdf

European Parliament. (2016). *Report on women domestic workers and carers in the EU (2015/2094(INI))*. European Parliament - Committee on Women’s Rights and Gender Equality. Retrieved from https://www.europarl.europa.eu/doceo/document/A-8-2016-0053_EN.pdf

Flanagan, F. (2019). Theorising the gig economy and home-based service work. *Journal of Industrial Relations*, 61(1), 57–78. <https://doi.org/10.1177/0022185618800518>

Focus on Labour Exploitation. (2021). *“If I could change anything about my work...” Participatory Research with Cleaners in the UK*. (Working Paper No. 1). London. Retrieved from https://www.labourexploitation.org/sites/default/files/publications/FLEX_ChangeAboutMyWork_vAW_Digi_Singles_0.pdf

Forté, M., & Monchatre, S. (2013). Recruter dans l’hôtellerie-restauration: quelle sélectivité sur un marché du travail en tension ? », , 2013/1 (n° 76), p. 127-150. *La Revue de l’Ires*, 76(1), 127–150.

Fudge, J., & Hobden, C. (2018). *Conceptualizing the role of intermediaries in formalizing domestic work* (Conditions of Work and Employment Series No. 95). Geneva: ILO. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_631587.pdf



- Fumagalli, A., Gobetti, S., Morini, C., & Serino, R. (2021). *Taxation and other redistributive mechanisms* (PLUS D 3.3).
- Gallic, E., & Malardé, V. (2018). Airbnb in Paris: quel impact sur l'industrie hôtelière?, 33.
- Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12(1), 78–104. <https://doi.org/10.1080/09692290500049805>
- Ginindza, S., & Tichaawa, T. M. (2019). The impact of sharing accommodation on the hotel occupancy rate in the kingdom of Swaziland. *Current Issues in Tourism*, 22(16), 1975–1991. <https://doi.org/10.1080/13683500.2017.1408061>
- Guttentag, D. (2019). Progress on Airbnb: a literature review. *Journal of Hospitality and Tourism Technology*, 10(4), 814–844. <https://doi.org/10.1108/JHTT-08-2018-0075>
- Haidinger, B. (2016). Flexibilität, Absicherung und Interessenvertretung in der 24-Stunden-Betreuung ... grenzenlos? In A. Österle & B. Weicht (Eds.), *Im Ausland zu Hause pflegen: Die Beschäftigung von MigrantInnen in der 24 Stunden Betreuung* (pp. 87–115). Münster: LIT Verlag.
- Haidinger, B., & Flecker, J. (2015). Positioning Labour in Service Value Chains: The case of parcel delivery. In K. Newsome, P. Taylor, J. Bair, & A. Rainnie (Eds.), *Putting Labour in its Place* (pp. 64–82). Palgrave Macmillan.
- Harnay, P. (2019). Amazon: révolution dans la messagerie. *Revue Transports, Infrastructures & Mobilité*, 515, 29–34.
- Harnay, P. (2020). Dépendance économique dans les relations de sous-traitance : quels critères ? Le cas des chauffeurs-livreurs de la messagerie. *Droit et Société*, 104(1), 189–209. <https://doi.org/10.3917/drs1.104.0189>
- Hermann, C., & Flecker, J. (Eds.). (2012). *Privatization of Public Services. Impacts for Employment, Working Conditions, and Service Quality in Europe*. New York: Routledge.
- Hunt, A., & Machingura, F. (2016). *A good gig? The rise of on-demand domestic work* (Working Paper No. 7). London: Overseas Development Institute.
- Huws, U. (2018). Eating us out of house and home: The dynamics of commodification and decommodification of reproductive labour in the formation of virtual work. *International Journal of Media & Cultural Politics*, 14(1), 111–118. https://doi.org/10.1386/macp.14.1.111_7
- Huws, U. (2019). *Labour in Contemporary Capitalism. What next?* Palgrave Macmillan.



Huws, U., Spencer, N. H., & Syrdal, D. S. (2018). Online, on call: the spread of digitally organised just-in-time working and its implications for standard employment models. *New Technology, Work and Employment*, 33(2), 113–129. <https://doi.org/10.1111/ntwe.12111>

Ilsøe, A. (2020). *The Hilfr agreement. Negotiating the platform economy in Denmark*. University of Copenhagen: FAOS. Retrieved from https://faos.ku.dk/publikationer/forskningsnotater/rapporter-2019/Rapport_176_-_The_Hilfr_agreement.pdf_copy

International Labour Office. (2013). *Domestic workers across the world: Global and regional statistics and the extent of legal protection*. Geneva: ILO. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_173363.pdf

International Labour Organization. (2021). *Making decent work a reality for domestic workers: Progress and prospects ten years after the adoption of the Domestic Workers Convention, 2011 (No. 189)*. Geneva: International Labour Office. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_802551.pdf

Jaehrling, K., & Weinkopf, C. (2020). *Job Quality and Industrial Relations in the Personal and Household Services Sector (PHS-Quality)*. IAQ/Universität Duisburg-Essen. Retrieved from <https://aias-hsi.uva.nl/binaries/content/assets/subsites/hugo-sinzheimer-institute/phs-quality/country-report-germany..pdf>

Keune, M., & Pedaci, M. (2020). Trade union strategies against precarious work: Common trends and sectoral divergence in the EU. *European Journal of Industrial Relations*, 26(2), 139–155. <https://doi.org/10.1177/0959680119827182>

Ledoux, C., & Krupka, R. (2020). *Job Quality and Industrial Relations in the Personal and Household Services Sector (PHS-Quality) - Country Report France*. Université de Nantes. Retrieved from <https://aias-hsi.uva.nl/binaries/content/assets/subsites/hugo-sinzheimer-institute/phs-quality/country-report-france.pdf>

Leduc, E., & Tojerow, I. (2020). *Subsidizing Domestic Services as a Tool to Fight Unemployment: Effectiveness and Hidden Costs* (IZA Discussion Paper No. 13544). Bonn: Institute of Labor Economics. Retrieved from <http://ftp.iza.org/dp13544.pdf>

Lejeune, G. (2020). *Les chauffeurs de taxi parisiens. Enquête sur un petit métier des transports en crise* (Thèse en sociologie soutenue le 21-09-2020). Université Paris Descartes, Paris.

Lutz, H. (2008). *Migration and domestic work. A European perspective on a global theme*. Aldershot: Ashgate.

Mayor of London. (2019). Mayor calls for registration system to enforce short-term letting law. Retrieved from <https://www.london.gov.uk/press-releases/mayoral/registration-system-for-short-term-letting-law>



McGowan, R., & Mahon, J. (2018). David versus Goliath: Airbnb and the New York Hotel Industry. *Archives of Business Research*, 6(4), 130–142. <https://doi.org/10.14738/abr.64.4447>

Moore, S., & Newsome, K. (2018). Paying for Free Delivery: Dependent Self-Employment as a Measure of Precarity in Parcel Delivery. *Work, Employment and Society*, 32(3), 475–492. <https://doi.org/10.1177/0950017018755664>

Neate, R. (2020). How the Covid-19 crisis locked Airbnb out of its own homes. *The Guardian*. Retrieved from <https://www.theguardian.com/technology/2020/apr/04/how-the-covid-19-crisis-locked-airbnb-out-of-its-own-homes>

OECD. (2019). Measuring platform mediated workers. <https://doi.org/10.1787/170a14d9-en>

Olive, D. J. (2017). *Linear Regression*. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-319-55252-1>

Ramos Martin, N., & Belen Munoz Ruiz, A. (2020). *Job Quality and Industrial Relations in the Personal and Household Services Sector - Overview Comparative Report*. AIAS-HSI. Retrieved from <https://aias-hsi.uva.nl/binaries/content/assets/subsites/hugo-sinzheimer-institute/phs-quality/comparative-report-phs-final-ramos-munoz-k.-2.pdf>

Reid-Musson, E., MacEachen, E., Bartel, E., Saunders, R., Meyer, S., & Bigelow, P. (2020). Occupational Safety and the City: Licensing Regulation and Deregulation in the Taxi Sector. *Relations Industrielles*, 75(1), 101–122.

Rème-Harnay, P. (2020). Comment les plateformes numériques accroissent la dépendance dans les relations de sous-traitance : le cas de la livraison à vélo. *Revue Francaise de Socio-Economie*, n° 25(2), 175–198. Retrieved from <https://www.cairn.info/revue-francaise-de-socio-economie-2020-2-page-175.htm>

Roache, T. (2019, February 4). Gig economy take note. <https://www.gmb.org.uk/long-read/gig-economy-take-note> [06/23/2021]

Sardadvar, K. (2019). Ausgelagert und unsichtbar: Arbeitsbedingungen in der Reinigungsbranche. *Momentum Quarterly*, 8(2), 80–94.

Sardadvar, K., Kümmerling, A., & Peycheva, D. (2015). Gender-Typing of Low-Wage Work: A Comparative Analysis of Commercial Cleaning in Austria, Domiciliary Elderly Care in Germany and the Waste Sector in Bulgaria. In U. Holtgrewe, K. Vassil, & M. Ramioul (Eds.), *Hard Work in New Jobs. The Quality of Work and Life in European Growth Sectors* (pp. 208–228). Palgrave Macmillan UK. Retrieved from http://link.springer.com/chapter/10.1057/9781137461087_13

Scheiwe, K. (2021). *Domestic Workers, EU Working Time Law and Implementation Deficits in National Law -Change in Sight?* (EUI Working Papers No. LAW 2021/03). European University Institute. Retrieved from https://cadmus.eui.eu/bitstream/handle/1814/70620/LAW_%202021_03.pdf?sequence=1&isAllowed=y



Secchi, M., Pirina, G., Tomassoni, F., Leonardi, E., & Allegretti, G. (2021). *Guidelines for policy makers on socioeconomic larger impact on urban economics* (PLUS D 3.4).

Srnicek, N. (2016). *Platform Capitalism*. Wiley. Retrieved from <https://www.wiley.com/en-us/Platform+Capitalism-p-9781509504862>

Srnicek, N. (2017). The challenges of platform capitalism: Understanding the logic of a new business model. *Juncture*, 23(4), 254–257. <https://doi.org/10.1111/newe.12023>

Technopolis, VVA Consulting, & Trinomics. (2018). *Study to Monitor the Economic Development of the Collaborative Economy at sector level in the 28 EU MS*. Brussels: European Commission. Retrieved from <https://op.europa.eu/en/publication-detail/-/publication/0cc9aab6-7501-11e8-9483-01aa75ed71a1/language-en#>

Thelen, K. (2012). Varieties of Capitalism: Trajectories of Liberalization and the New Politics of Social Solidarity. *Annual Review of Political Science*, 15(1), 137–159. <https://doi.org/10.1146/annurev-polisci-070110-122959>

Thévenoud, T. (2014). *Un taxi pour l'avenir, des emplois pour la France* (Mission de concertation Taxis - VTC). Retrieved from <https://www.vie-publique.fr/sites/default/files/rapport/pdf/144000239.pdf>

Todolí-Signes, A. (2020). Notes on the Spanish Supreme Court Ruling That Considers Riders to Be Employees. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3717599>

Tomassetti, J. (2016). Does Uber Redefine the Firm? The Postindustrial Corporation and Advanced Information Technology. *Hofstra Labor & Employment Law Journal*, 34(1). Retrieved from <https://scholarlycommons.law.hofstra.edu/hlelj/vol34/iss1/3>

Tullini, P., & Donini, A. (2019). *Report on legislation at European, national, urban level and on general terms & conditions of the selected platforms* (PLUS D 1.1 Final Report).

Tullini, P., Donini, A., & Dassori, B. (2021). *Charta on Digital Workers Rights* (PLUS D 5.1).

Uber. (2020). *ESG Report. An environmental, social, and governance report for investors*. Retrieved from <https://s23.q4cdn.com/407969754/files/design/Uber-2020-ESG-Report-Final.pdf>

Weil, D. (2014). *The Fissured Workplace*. Cambridge, Massachusetts: Harvard University Press. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=660130&site=ehost-live>

Weil, D. (2019). Understanding the Present and Future of Work in the Fissured Workplace Context. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 5(5), 147–165. <https://doi.org/10.7758/rsf.2019.5.5.08>



Weil, D., & Goldman, T. (2016). Labor Standards, the Fissured Workplace, and the On-Demand Economy. *Perspectives on Work*. Champaign IL. Retrieved from http://www.fissuredworkplace.net/assets/Weil_Goldman.pdf

Xie, K. L., & Kwok, L. (2017). The effects of Airbnb's price positioning on hotel performance. *International Journal of Hospitality Management*, 67, 174–184. <https://doi.org/10.1016/j.ijhm.2017.08.011>

Zervas, G., Proserpio, D., & Byers, J. (2016). *The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry* (SSRN Scholarly Paper No. ID 2366898). Rochester, NY: Social Science Research Network. <https://doi.org/10.2139/ssrn.2366898>

Zhu, F., & Iansiti, M. (2019, January 1). Why Some Platforms Thrive and Others Don't. *Harvard Business Review*. Retrieved from <https://hbr.org/2019/01/why-some-platforms-thrive-and-others-dont>



7. ANNEXES

7.1 Overview interviews city reports and interview guidelines

	Organisation, Company	Position	Industry (i.a.)	Expert for Platform (i.a.)
BA-EX-1	ESADE	Researcher	Research	
BA-EX-2	Col·lectiu Ronda	Labour Lawyer	Labour	Deliveroo
BA-EX-3	Abacus	President	Culture & Education	
BA-EX-4	Abacus	Digital transformation director	Culture & Education	
BA-EX-5	Glovo	Head of Policy -South Europe & Latin America	Delivery	Glovo
BA-EX-6	Associació de Veïns i Amfitrions de Barcelona (Association of Neighbors and Hostesses of Barcelona)	President	Housing	AirBnB
BA-EX-7	Associació de Veïns i Amfitrions de Barcelona (Association of Neighbors and Hostesses of Barcelona)	Secretary	Housing	AirBnB
BA-EX-8	Unión General de Trabajadores (General Union of Workers)	Sectoral act secretariat	Labor	
BA-EX-9	Barcelona City Council	Commissioner for Social Economy, Local Development and Consumption	Policymaker	
BA-EX-10	IESE Business School	Lecturer & researcher	Research	AirBnB
BA-EX-11	IESE Business School	Lecturer & researcher	Research	AirBnB
BA-EX-12	SUARA cooperative	Director of the Public and Institutional Client Area	Care	
BA-EX-13	SUARA cooperative	Innovation Director	Care	
BA-EX-14	Mensakas -Deliver platform	Platform couriers spokesperson	Delivery	Mensakas
BE-EX-1	Deliverunion	Ex-Speaker	Food delivery, union	Deliveroo
BE-EX-2	Taxi Association	Members (3)	Taxi Association	Uber
BE-EX-3	Die Linke (Berlin)	Member of Berlin Parliament, Speaker for Smart City and Digitalisation	Politics	Airbnb
BE-EX-4	Ver.Di	Speaker on digitalisation Union	All platforms	



BE-EX-5		Researcher, Organizer and Worker	Research / Workers' Organizing	Helping
BO-EX-1	Riders Union Bologna	Union Member	Food Delivery	Deliveroo
BO-EX-2	Bologna City Council	Assessor	Local Administration	Deliveroo, Helping
BO-EX-3	CGIL-FILCAMS	Union Member	Commerce and Services	
BO-EX-4	Local Pal	Association Member	Hosting	Airbnb
BO-EX-5	Helping	Country Manager	Cleaning	Helping
BO-EX-6	Pensare Urbano	Member	Local Committee	Airbnb
BO-EX-7	Glovo	Public Relations Manager	Food Delivery	
BO-EX-8	Fondazione per l'Innovazione Urbana	President	Urban Planning	Airbnb
LI-EX-1		Nova University of Lisbon	Researchers	
LI-EX-2		COLABOR	Unions	
LI-EX-3		University of Lisbon - ISCTE/IUL	Researchers	
LI-EX-4		Municipality of Lisbon	Local administration (civil servants)	
LI-EX-5		University of Lisbon - ICS	Researchers	
LI-EX-6		Habita!	Committees / Other Urban actors	
LI-EX-7		STRUP	Unions	
LI-EX-8	NA	Sindicatos Motoristas TVDE	Informal networks/groups of workers	
LI-EX-9		UOL - IGOT - Morar em Lisboa	Researchers	
LI-EX-10			Economic environment of platforms	
LI-EX-11	NA	Feels like home	Economic environment of platforms	
LO-EX-1	TUC, https://www.tuc.org.uk/	Policy Officer	Labour Union	Deliveroo, Uber, Helping
LO-EX-2	GMB https://www.gmb.org.uk/	Regional Organizer	Labour Union	Deliveroo and Uber



LO-EX-3	The Voice of Domestic Workers https://www.thevoiceofdomesticworkers.com/	Trustee/Organizer	Support Network for Migrant Domestic Workers	Helping
LO-EX-4	The University of York https://www.york.ac.uk	Academic	Research	Helping
LO-EX-5	IWGB https://iwgb.org.uk/	Academic/Activist	Research/	Deliveroo
LO-EX-6	Wailing- Wailing	Activist	Migrant Network	Helping
LO-EX-7	UPHD http://www.uphd.org/	Secretary	Labour Union	Uber
LO-EX-8	Oxford Internet Institute https://www.oii.ox.ac.uk/research/	Academic/Activist	Research Centre	Uber, Deliveroo and Airbnb
LO-EX-9	Institute for the Future of Work (IFOW)	Senior Researcher	Think tank/ Research	Uber and Airbnb
PA-EX-1		SCP - VTC	Transport	Uber
PA-EX-2 :	Franck AFFORTIT (deputy head),	BPLH (Bureau de la Protection des Locaux d'habitation)	Short rental	Airbnb
PA-EX-3 :		CLAP (Collectif des livreurs autonomes de Paris)	Food delivery	Deliveroo
PA-EX-4:		SUD (Commerce &Service)	Food delivery	Deliveroo/Uber
PA-EX-5:		LabUrba	Short rental	Airbnb
TA-EX-1	Previously in Ministry of Social Affairs	[expert in social security]	[national government]	Airbnb, Uber
TA-EX-2	Foresight Centre (of Estonian Parliament)	[expert in future of work]	[national government]	Airbnb, Uber
TA-EX-3	Tax and Customs Board	[expert in taxes]	[national authorities]	Airbnb, Uber
TA-EX-4	Tallinn Transport Department	[expert in public transport]	Transport [city level authorities]	Uber
TA-EX-5	Estonian Hotel and Restaurant Association	CEO	Hospitality [employer representative association]	Airbnb
EU-EX-1		Legal expert, University of Vienna	All platforms	
EU-EX-2		EFFAT	Hospitality [EU-level union]	Airbnb
EU-EX-3		EFSI	Cleaning employer representative association]	Helping
EU-Ex-4	Written statement	HOTREC	Hospitality [employer representative association]	airbnb



EU-Ex-5	Seputy general secretary of ETF	ETF	Transport [EU-level union]	Uber
EU-Ex-6		Uni Europa	Logistics and Post, finance, call centres [[EU-level union]	Deliveroo
EU-Ex-7		ETUI	Researcher at EU-level union research institute/ all platforms	
EU-Ex-8		ETUC	all platforms	

Table 14. List of interviewees for city reports (task 3.1.3)

Interview Guidelines for Expert Interviews

Interview guidelines are for 6-12 background/expert interviews in each city as stated in subtask 3.1.3 (WP3), in cooperation with WP2 (Task 2.2, entailing interviews for the background research and a map of relevant actors) and with Task 3.2 (municipal regulatory framework).

The guideline comprises of several topics that can be addressed during an interview. However, not every question is mandatory, the selection of topics and subsequent questions is at the interviewer's discretion, depending on the expertise of the respondent (labour market, industry, labour law, urban planning, policy, etc.), the industry the platform affects, the city, etc. Please add in your report (=city report, template provided in a separate document) any issues that are not covered here but might be important for your city.

The aim of the expert interviews is twofold. On the one side, as part of Task 2.2., they constitute the basis for the formulation of the guidelines for the qualitative interviews with workers, to be started in September 2019. Thus, they include questions on the labour process, skills and on issues of social protection. On the other side, as part of task 3.1.3 and 3.2, they will enable the researchers in each city to get a better idea on how online platforms affect (/disrupt) the respective economic sectors, the employment situation, industry standards and the urban space. Questions also aim to identify policies and discover (new) forms of regulation, and to provide information for designing the questionnaire.

Introduction

Please make sure to inform the interviewee about recording the interview. Hand out the privacy and data security sheet.

Summarise the project: PLUS is a research project funded by the European Commission within the funding framework Horizon 2020; it focuses on how the rise of digital platforms is affecting labour and urban development in European cities. The goal of this interview is collecting preliminary information and data about the development of platforms in city X. In particular, we are interested in these platforms: X, Y, Z (according to expertise of expert). In the following we are going to ask questions about the role of platforms in this city, how they are affecting labour and work in the city as well as the urban economy and development.



1. **Intro:** Briefly describe the position [or the sector s/he is involved in] you are holding and your connection to platform labour. [For which of the four platforms (Airbnb, helping, Deliveroo, Uber) is the interviewee an expert?]

Description of platform activities:

2. **What kind of platform labour occurs in your sector/in your city? What companies are active in this field?**
 - a. Can you estimate the size of the market (in terms of employment, flats brokered via Airbnb, revenues, ...) as well as past and present growth rates, growth potential? (ask for published data the interviewee might know or refers to)
 - b. Besides these profit-oriented platforms do you know of any online platforms providing similar services?
 - i. Based on cooperative models?
 - ii. Are they local, regional, international platforms?
2. What do you know about the **composition of the workforce?** (ask for published data the interviewee might know or refers to)
 - a. Contract, form of employment, length of employment/turnover
 - b. Demographics (gender, migration background, age, care obligations, ...)
3. Why do platform workers choose to work with a platform?
 - a. Which workers employed in the same sectors do not enter the platforms and why?
 - b. What kind of networks of workers enter in contact with these platforms?

Economic impact:

4. What are the main **effects of [platforms] on sector(s)** [passenger transport, goods transport, hotels and restaurants, real estate, cleaning in private households]?
 - a. How does it impact on the employment situation?
 - b. How has the sector economically developed (decline, growth, stagnation, fragmentation, ...) since platforms entered the field?
 - c. How did prices for services in the sector/s develop?
 - d. What are the effects on incumbent/traditional players/enterprises [e.g. hotel industry, transportation and delivery, etc.]? (... under pressure, closing down, prospering, no effect, ...)
5. How do online platforms impact on **industry standards**?
 - a. Which standards are eroding, which remain stable? Which standards are higher than previously? (standards could be: qualification standards, health and safety standards, sanitary standards, quality of service, requirements for business licences, ...)
6. How do online platforms **impact on the provision of the services** (transportation, delivering, cleaning, accommodation) in your city?
 - a. More, cheaper, better // less, more expensive, worse services to choose from for the urban population or urban tourists



Labour skills and process

(especially for unions, networks/groups of workers, platform managers/workers, job centres, researchers)

Labour skills:

7. How does the application procedure and “hiring” work on the different platforms?
8. What type of skills, resources and assets are required to work on platforms?

Control and autonomy at work:

9. What types of control is exerted on workers on platforms?
 - a. Which actors are involved in controlling workers?
10. What spaces of autonomy are they allowed to have and how do they practically implement these?
11. How are rating systems organized by the app in the various platforms?
12. What different categories of platform workers are there?
 - a. Are they organized along productivity? How?
 - b. Is there a system of bonus or punishment according to productivity and compliancy of workers?

Social income, social protection, welfare

13. Do local/municipal labour market policies target workers active in the platform economy?
 - c. If yes, what kind of programmes have been developed?
 - d. What would be needed?
 - e. Is there a noteworthy connection between platform work and job centers’ activation programmes?
14. What is the status of platform workers with respect to labour and social security law?
15. What are the main challenges/problems related to platform workers’ social protection, occupational health and safety?
16. What do you know about workers’ income generation on platforms?
 - f. To what extent does working in the platforms constitute a main/secure source of income?
 - g. What other sources of income do workers in the platforms have? Are platform workers often receiving state benefits?

Urban and social impact:

17. How does platform labour affect the **urban space**?
 - h. Impact on certain areas (employment, depreciation or upgrading of certain areas; uneven provision of e.g. food delivery, ...)
 - i. Impact on traffic and on traffic planning
 - j. Impact on real estate prices (Airbnb, Deliveroo, ...)
 - k. How do platforms interact with and affect socio-economic processes taking place in the city (e.g. demographics, gentrification, pollution, etc.)?
18. Who benefits and how from platform economies in the city? Who loses and how?



- l. How are revenues from platforms distributed?
- m. Do platforms exacerbate existing trends or reduce inequalities and how?

Regulation and Policy

- 19. How is existing regulation applied to platform labour? (trade law related regulation, taxation, health and safety standards)
- 20. Which legal issues are discussed with regard to online platforms? (e.g. with respect to employment status of platform workers)
- 21. Are there any lawsuits disputing aspects of platform labour? [employment status of workers, tax issues, ...]
- 22. What controversial aspects are discussed publicly (including collective actions) [national city level]?

Local Governance

- 23. Are there any specific local regulatory frameworks for platform economy at city level? Looking at the cross point between industry regulations and local regulatory frameworks:
 - a. Direct regulations and agreements of platform industry involving urban authorities
 - b. Relevant policy areas indirectly impacting platform studied (eg housing, mobility, public transportation)
 - c. Framing of platform labour in local welfare and relation with local welfare system
 - d. Relevant participatory and deliberative policies at urban level
- 24. What political and social actors are involved in the public debate regarding platform economy and its impacts in the city?
- 25. What controversial aspects are discussed publicly (including collective actions) [city level]?
- 26. What are the spaces and channels (formal and informal) through which public debate is carried out?

Conclusion

- 27. Are there issues that we did not cover, but which are relevant to the topic according to you? Which ones?
- 28. How can workers be identified/contacted? (asking for contacts)
- 29. Other contacts to relevant actors for next interviews?

7.2 Overview interviews city industry reports and interview guidelines

		Industry	Methodology	Participants/Interviewees
BE-FG-1	Berlin	Passenger Transport	Focus group discussion	Chairman of Taxi Innung Berlin
BE-FG-2	Berlin	Passenger Transport	Focus group discussion	Former taxi-driver



BE-INT-1	Berlin	Hotel and Accommodation	Individual interviews	Union representative (NGG)
BE-INT-2	Berlin	Hotel and Accommodation	Individual interviews	Accommodation company association representative (DEHOGA)
BE-INT-3	Berlin	Hotel and Accommodation	Individual interviews	Representative for the Berlin Senate
BE-FG-3	Berlin	Cleaning	Focus group discussion	Union IG BAU (union)
BE-FG-4	Berlin	Cleaning	Focus group discussion	Oficina Precaria (NGO)
BE-FG-5	Berlin	Cleaning	Focus group discussion	Berlin senate administration
BE-FG-6	Berlin	Cleaning	Focus group discussion	ArbeitGestalten (research agency)
BE-FG-7	Berlin	Cleaning	Focus group discussion	Berlin Senate administration (platform work)
TA-FG-1	Tallinn	Passenger Transport	Focus Group Discussion	Taxi company, representative
TA-FG-2	Tallinn	Passenger Transport	Focus Group Discussion	Municipal Police Department I
TA-FG-3	Tallinn	Passenger Transport	Focus Group Discussion	Municipal Police Department II
TA-FG-4	Tallinn	Passenger Transport	Focus Group Discussion	Municipal Police Department III
BO-FG-1	Bologna	Hotel and Accommodation	Focus Group Discussion	Supervisor of cleaning services for a Bologna social cooperative
BO-FG-2	Bologna	Hotel and Accommodation	Focus Group Discussion	CGIL Union Member
BO-FG-3	Bologna	Cleaning	Focus Group Discussion	Accommodation company association representative
BO-FG-4	Bologna	Cleaning	Focus Group Discussion	CGIL Union Member
BO-FG-5	Bologna	Hotel and Accommodation	Focus Group Discussion	Manager of FederAlberghi (Hotel professional association).
PA-INT-1	Paris	Passenger Transport	Individual interviews	Researcher
PA-INT-2	Paris	Passenger Transport	Individual interviews	Food delivery riders union activist
PA-INT-3	Paris	Hotel and accommodation	Individual interviews	Representative of a hotel business association
PA-INT-4	Paris	Hotel and accommodation	Individual interviews	Paris city hall employee
LI-INT-1	Lisbon	Passenger Transport	Individual interviews	Official of the Municipal Department of Mobility, Safety, Economy and Innovation
LI-INT-2	Lisbon	Passenger Transport	Individual interviews	Platform driver, trade union member



LI-INT-3	Lisbon	Hotel and Accommodation	Individual interviews	Manager of the main Lisbon concierge and short-stay rental intermediary company
LI-INT-4	Lisbon	Hotel and Accommodation	Individual interviews	Small Airbnb service provider manager
BA-FG-1	Barcelona	Food delivery	Focus group discussion	Consultant Future of Work and Platform Economy
BA-FG-2	Barcelona	Food delivery	Focus Group discussion	CCOO of Catalonia
BA-FG-3	Barcelona	Food delivery	Focus Group discussion	Rider and UGT member
BA-FG-4	Barcelona	Hotel and Accommodation	Focus group discussion	Gremio de Hoteles de Barcelona, Director of Innovation
BA-FG-5	Barcelona	Hotel and Accommodation	Focus group discussion	Las Kellys, spokesperson
BA-FG-6	Barcelona	Hotel and Accommodation	Focus group discussion	Veins i Amfitrions, president
BA-FG-7	Barcelona	Hotel and Accommodation	Focus group discussion	ESADE, researcher
BA-FG-8	Barcelona	Hotel and Accommodation	Focus group discussion	University of Torino, researcher
BA-FG-9	Barcelona	Hotel and Accommodation	Focus group discussion	UOC, post-doctoral researcher
LO-INT-1	London	Cleaning	Individual interviews	University /Expert, Trustee of Kalayaan organisation
LO-INT-2	London	Cleaning	Individual interviews	Focus on Labour Exploitation-FLEX, NGO/ Research Officer
LO-INT-3	London	Cleaning	Individual interviews	FLEX/ Research Manager
LO-INT-4	London	Cleaning	Individual interviews	Policy officer, Latin American Women's Rights Service, NGO
LO-INT-5	London	Food delivery	Individual interviews	Labour Union/Couriers and Drivers Workers Union, London
LO-INT-6	London	Food delivery	Individual interviews	Labour Union/GMB, the Union
LO-INT-7	London	Food delivery	Individual interviews	Labour Union/IWGB
LO-INT-8	London	Food delivery	Individual interviews	Courier/Delivery driver
LO-INT-9	London	Passenger Transport	Individual interviews	Association of Community Organisations for Reform Now – ACORN/ Union Organiser
LO-INT-10	London	Passenger Transport	Individual interviews	Black Cab Taxi Driver
LO-INT-11	London	Passenger Transport	Individual interviews	Green Jobs Alliance/Labour Union Representative



LO-INT-12	London	Passenger Transport	Individual interviews	Green Jobs Alliance /Union Representative (RMT)
LO-INT-13	London	Hotel and Accommodation	Focus group discussion	University of Hertfordshire /Principal Lecturer in Tourism
LO-INT-14	London	Hotel and Accommodation	Focus group discussion	Hotel/Worker in Hotel Industry
LO-INT-15	London	Hotel and Accommodation	Focus group discussion	Local Authority Camden Council/City Councilor
LO-INT-16	London	Hotel and Accommodation	Focus group discussion	UNITE the Union/Union Representative

Table 15. List of interviewees for city industry reports (task 3.1.4)

Interview guidelines and specific instructions for each industry

1. Courier Services (Deliveroo)

Section Employment

Introductory question: The employment situation of (food) delivery riders for platforms is contested and mostly resembles atypical employment relations. How would you assess the employment situation and working conditions of traditional couriers and delivery riders, i.e. in postal/courier services or food delivery riders directly employed / working for at restaurants?

Additional questions could be:

- **State as an active market participant:** Are there any cases of state/municipality demand for delivery services? For instance, in relation to specific demands relating to the COVID-19 crisis? Did, as a consequence, any formalisation of work occur?

Section company strategies

Introductory question: How has the market entrance of online platforms (such as Deliveroo or glovo) affected the business of established providers (esp. in courier services)? If you do not see any disruption of incumbent courier companies so far, do you expect more direct competition between online platform providers and established providers for the future?

Additional questions could be:

- **Horizontal/vertical expansion:** As a result of increased competition (or new COVID-19 related demand), is there a horizontal and/or vertical expansion of services? For instance, food delivery companies extend their services and also offer the delivery of other goods (horizontally), or delivery companies also engage in production processes, such as pop-up-kitchens (vertically).**COVID-19 impact:** Can you see an impact of COVID-19 on the workforce, on the demand for services, or can you identify a shift in demand (e.g. covid-19 toolkits to be delivered)?



Section industry regulation

Introductory question: How did cities and/or state legislators react to the entrance of the new platform-based business models and new forms of employment?

Specific questions could be:

- **Regulations:** Are incumbents/platforms advocating for more strict/lax regulation?
- How are incumbents affected by newly introduced regulations? Are there any strategies to optimise such regulations?

2. Cleaning (helping)

Section Employment

Introductory question: Cleaning in private homes is still primarily provided by domestic workers working undeclared. Has the possibility to work declared via platforms improved the employment situation of domestic workers in general? What is the impact of platform work on working conditions for DW not mediated via platforms?

Specific questions could be:

- **Role of agencies:** Agencies play a significant role in recruiting domestic workers. One core question is if DW mediated/recruited via agencies are to be regarded as employees of these agencies or self-employed? What other issues (e.g. payment of commission) come up when agencies interfere with domestic workers?
- **Statutory/collectively negotiated minimum fee:** Minimum fees for DW are highly contested. A new ruling of a Danish court stated that minimum fee is not compatible with anti-trust regulation/competition law as concerted action of self-employed would constitute a cartel → Who is an independent contractor? Should DW be allowed to collectively demand minimum fees? What is your opinion?
- **Protection gaps:** How could social and OSH protection of DW be improved (e.g. direct employment)?
- **Covid-19:** What was the impact of covid-19 on DW supply and working conditions?

Section company strategies

Introductory question: Did platform-mediated cleaning gain ground in the provision of cleaning services for private homes or other customers? Why/not?

Specific questions could be:

- **Airbnb:** Do Airbnb hosts gain importance as customers of platform-based cleaning services?
- **Digital strategies:** What digital strategies do/should traditional actors pursue to stay competitive? (i.e. better online presence, more transparent pricing, own market places)



- **Quality and professionalisation:** To improve quality standards and professionalisation in cleaning, what would be needed? Do you see a tendency of platforms changing its employment policies from hiring only self-employed to direct employment?

Section Industry regulation

Introductory question: the regulation of the provision of household services (besides the regulation of the employment itself) is (at least) threefold: first, in some countries, it is subsidised for persons in need of care or through tax incentives. Second, specific vouchers (e.g. chèque emploi service universel)) are issued to formalise domestic work and make it easier for households to buy such services. Third, specific immigration schemes canalise migrant (often women) workers into this sector. Where do platforms fit into this regulatory framework?

Specific questions could be:

- **Role of public policies:** tax incentives, state as an employer: This was done mostly through public subsidies to professional service providers (Belgium) or tax subsidies to households (France) or through tax and social security exemptions for employees (Mini-jobs in Germany). Can working conditions of DW become more decent *without* subsidization and incentives by the state?
- **Counterpart of DW demands:** Where should demands of domestic workers be directed to? Government? Employers? Agencies? Private households? Who should be the negotiation partners of collective agreements/collective regulations?
- **Collective Agreement:** Danish Hilfr collective bargaining agreement covering domestic workers mediated via platforms was a path-breaking CBA. It allows freelancers to bargain collectively, sets minimum standards and provides tailored data protection. If you are familiar with it, would this be a way forward for better working conditions for DW?

3. Accommodation/Hotels/Short-term rental (Airbnb)

Section Employment

Introductory question: In the hotel and accommodation sector the market entrance of especially Airbnb sparked public debates on housing prices, rents and also about competition against the traditional hotel and accommodation providers. How were employment relations and working conditions impacted in the incumbent industry as a result of the increased competition?

Specific topics

- **Working conditions:** In what way are the working conditions in the hotel industry affected by the market entrance of platform companies?
- **Temporary agency work:** Is temporary agency work relevant for incumbent companies and has its prevalence changed due to the platform companies' competition?



- **Part-time work:** Do you see more/less part time work?
- **Impact of Covid-19 pandemic:** Tourism was severely affected by the covid-19 pandemic. Have employees in the hotel industry been specifically supported by state programmes?

Section Scope of the industry and company strategies

Introductory question: Private short-term rentals are not only mediated via platforms but also increasingly rely on paid concierge and cleaning services. Are incumbents forced to also use platform-based matching services (such as booking.com)? Do you observe a tendency that the traditional hotel business outsources ancillary services?

Specific questions could be:

- **Outsourcing:** Does outsourcing become more attractive /necessary due to price pressure (e.g. cleaning services)? Or is it an already well-established practice? Is this a general tendency (to specialise or save costs) or would you see it in relation to the rise of platform-mediated competitors?
- **Outsourcing using online platforms:** Do incumbents outsource ancillary services over platform companies (such as helping)?
- **Impact of COVID:** How has the recent Covid pandemic impacted on the sector? How are incumbents and short-term-renters handling the crisis differently? Were/are incumbents directly supported through public funds during the crisis?

Section Industry regulation

Introductory question: With new market entrants there could be brought forward changes in regulations or industry standards. In accommodation this could relate to tightening or loosening health and safety or certain hygiene standards to either allow new competitors easier market entry or to protect existing providers. How have regulation and standards changed due to the market entrance of online platform providers?

Specific questions could be:

- **Lobbying for more efficient inspections:** In some cities, new regulations for platform-mediated short term rental has already been established. Is there lobbying of incumbents but also of compliant hosts on platforms for tighter inspections of the industry?

4. Passenger transport/Taxis (uber)

Section Employment

Introductory question: What is the impact of platform work on labour standards and working conditions for drivers not mediated via platforms?

Specific topics could be:



- **Working conditions:** How would you assess the difference in working conditions for platform-based and traditional taxi drivers? (overwork, danger and problems with clients, uncertainty (Tallinn: Uber income is **no “easy money”**) What has been done to protect drivers during the **covid-19 pandemic**?
- **Employment relations:** How have business and employment relations between drivers, customers and passenger transport companies changed since the entrance of competitors such as Uber?
- **Income:** Have taxi drivers diversified towards platform-based sources, to generate additional income? (Tallinn, Lisbon) If yes, what does this development imply for taxi drivers active in the traditional trade?
- **Recruitment:** Has the recruitment of new workers become more difficult as Uber is entering the market or do traditional taxi services cover a different labour force? (London)

Section changing company strategies

Introductory question: The taxi trade has been liberalised significantly. How did your industry and the incumbent companies active herein react to this? (i.e. specialisation, adoption of platform-based strategies, decline)? What strategies were adopted? Have new customers been gained? What impact did the liberalisation have on the quality of the taxi service?

Specific topics could be:

- **New business fields:** In Lisbon, for instance, Uber has started to become a logistics partner of the city “creating and improving integrated mobility services for Lisbon”. Another example is Uber’s expansion into delivery and distribution. What does such a strategic turn mean for the incumbent taxi industry? Has the pandemic Covid-19 brought new business fields to traditional taxi companies?
- **Diversification of services:** In London, Tallinn and Berlin, the individual passenger transport has become highly diversified with Uber and other online-platforms offering a range of tailored services. What does this development imply for traditional taxi companies and taxi drivers?
- **Dynamic pricing:** The price policy of Uber is based on data analysis. How are prices for taxi rides in your city calculated? Is dynamic pricing a sustainable method for matching supply and demand in your trade?
- **Quality and safety:** What are the differences in the quality of services, the access to taxi services, and safety standards and outcomes between platform-based and traditional companies? (Tallinn: more accidents caused by platform-based taxis; Berlin: Betriebs-, Tarif-, Beförderungspflicht)
- **Use of apps:** Are traditional taxi operators more intensely using platform-based technologies, and which ones, to stay competitive?

Section Industry regulation

Introductory question: Liberalisation also went hand in hand with new regulations for the taxi trade and for new operators active in passenger transport. Would you assess these new



regulations sufficient/adequate for a sustainable development of the individual passenger transport trade?

Specific topics could be:

- **Deregulation/informalisation of passenger transport:** Traditional taxi companies are usually heavily regulated: Fiskaltaxameter (Berlin), contingents for taxis (Lisbon), safety regulations, minimum prices. When platform-based companies have entered the market, they demanded access, reforms and deregulation. How has this development contributed to an informalisation of a formerly highly regulated trade?
- **Compliance with new regulations:** A re-regulation of the passenger transport industry was introduced in all cities/countries. Circumvention of these new regulations still prevail (Lisbon). How could compliance be increased?
- **Collection of mobility data:** Uber and other platform-based transport services is a collector of traffic data. Traffic data and user data are monopolised in these companies' hands. This also means Uber is ahead in having an information advantage against competitors what concerns the mobility behaviour of transport users. In Lisbon, they sell this data to municipal governments, or euphemistically put "support governments to find optimal transport solutions". What efforts are made to prevent profit-oriented transport companies to collect, store and sell such data to public institutions?

7.3 Survey questionnaire

Introduction

In recent years, websites and smartphone-based apps like Airbnb, Uber or Deliveroo have quickly gained notoriety. Such tools enable new ways of providing and making use of services like food delivery, taxi and transportation, short term rental or household services. The following questions invite you to indicate your experience with both using and providing services through these new channels. As urban life has been thoroughly affected by the coronavirus and the resulting lockdowns in recent months, you will be asked for your experience both prior and after the (first) corona lockdown. We are also interested in your estimations of potential consequences of some online platforms on urban life. Furthermore, you will be asked for a few aspects of your further occupational activities and other things you regularly do online. The questionnaire, which is part of an ongoing international research project funded by the European Union, will take you about 13 minutes to fill in. Thank you very much in advance for participating!

CUSTOMER ROLE ON PLATFORMS

1. **Since the loosening of the (first) Corona lockdown, how often did you make use of the following services through a website or app or in a more conventional matter (no matter if privately or in the context of your work)?**

ROWS



1. Get a taxi through [platform according to the city] or a similar website or app
2. Get a regular taxi without using [platform according to the city] or a similar website or app
3. Find somebody to carry out a household service for you (e.g. cleaning, moving, repair works or DIY tasks) on [platform according to the city] or a similar website or app
4. Find somebody to carry out a household service for (e.g. cleaning, moving, repair works or DIY tasks) without using [platform according to the city] or a similar website or app
5. Have meals or other food delivered to your home through [platform according to the city] or a similar website or app
6. Have meals delivered to your home without using [platform according to the city] or a similar website or app
7. Find somewhere to stay in a private home on Airbnb or a similar website or app
8. Book a hotel or BnB (no matter if online or offline, but not on Airbnb or a similar website or app)

COLUMNS

1. Three times a week or more
 2. About once or twice a week
 3. About once or twice a month
 4. About once in three months
 7. Less than once in three months
 8. Never
 9. Don't know
- 2. Now please think back to the time before the Coronavirus: Before the (first) Corona lockdown, how often did you make use of the following services through a website or app (no matter if privately or in the context of your work)?**

ROWS



1. Get a taxi through [platform according to the city] or a similar website or app³. Find somebody to carry out a household service for you (e.g. cleaning, moving, repair works or DIY tasks) on [platform according to the city] or a similar website or app
5. Have meals or other food delivered to your home through [platform according to the city] or a similar website or app
7. Find somewhere to stay in a private home on Airbnb or a similar website or app

COLUMNS

1. More often than now
 2. Same as now
 3. Less often than now
 4. Never
 5. Don't know
- 3. [If taxi service through [platform according to the city] more often than never before or after the onset of the Coronavirus crisis]**

How likely is it that you will increasingly use [platform according to the city] or a similar website or app in the near future to get a taxi?

[scale 1 very likely to 5 very unlikely]

[If taxi service through Uber never]

How likely is it that you will use [platform according to the city] or a similar website or app in the near future to get a taxi?

[scale 1 very likely to 5 very unlikely]

- 4. [If service carried out through [platform according to the city] more often than never before or after the onset of the Coronavirus crisis]**

How likely is it that you will increasingly use [platform according to the city] or a similar website or app in the near future to get a household service carried out for you?

[scale 1 very likely to 5 very unlikely]

- 5. [If service carried out through [platform according to the city] never]**



How likely is it that you will use [platform according to the city] or a similar website or app in the near future to get a household service carried out for you?

[scale 1 very likely to 5 very unlikely]

- 6. [If meal delivered through [platform according to the city] more often than never before or after the onset of the Coronavirus crisis]**

How likely is it that you will increasingly use [platform according to the city] or a similar website or app in the near future to get meals delivered?

[scale 1 very likely to 5 very unlikely]

- 7. [If meal delivered through [platform according to the city] never]**

How likely is it that you will use [platform according to the city] or a similar website or app in the near future to get meals delivered?

[scale 1 very likely to 5 very unlikely]

- 8. [If accommodation through airbnb more often than never before or after the onset of the Coronavirus crisis]**

How likely is it that you will increasingly use airbnb or a similar website or app in the near future to find accommodation while traveling?

[scale 1 very likely to 5 very unlikely]

- 9. [If accommodation through airbnb never]**

How likely is it that you will use airbnb or a similar website or app in the near future to find accommodation while traveling?

[scale 1 very likely to 5 very unlikely]

IMPACT OF PLATFORMS ON URBAN LIFE

- 10. Do you agree that [platform according to the city/taxi service] and similar websites or apps providing taxi and transportation services have the following effects on life in your city?**

ROWS

1. [platform according to the city/taxi service] and similar apps have become an important part of the urban transportation network



2. [platform according to the city/taxi service] and similar apps are mostly used by tourists
3. [platform according to the city/taxi service] and similar apps are increasing the amount of tourism in [city name]
4. [platform according to the city/taxi service] and similar apps are making it difficult for taxi drivers and companies in [city name] to attract enough customers
5. [platform according to the city/taxi service] and similar apps are cheaper than regular taxis in [city name]
6. [platform according to the city/taxi service] and similar apps are offering a better service than regular taxis in [city name]
7. [platform according to the city/taxi service] and similar apps have become more important since the onset of the Coronavirus crisis

COLUMNS

1. fully agree
2. tend to agree
3. neither agree nor disagree
4. tend to disagree
5. strongly disagree
6. don't know

11. Do you agree that [platform according to the city/household services] and similar websites or apps providing household services have the following effects on life in your city?

ROWS

1. [platform according to the city/household services] and similar apps make it easier to get a domestic service carried out short-term in [city name]
2. [platform according to the city/household services] and similar apps make it easier to find a properly registered domestic worker in [city name]
3. [platform according to the city/household services] and similar apps are cheaper than other providers in [city name]



4. [platform according to the city/household services] and similar apps are making it difficult for professional or other service providers in [city name] to attract enough customers in [city name]

5. [platform according to the city/household services] and similar apps have become more important since the onset of the Coronavirus crisis

COLUMNS

1. fully agree
2. tend to agree
3. neither agree nor disagree
4. tend to disagree
5. strongly disagree
6. don't know

12. Do you agree that [platform according to the city /food delivery] and similar websites or apps providing food delivery have the following effects on life in your city?

ROWS

1. [platform according to the city /food delivery] and similar apps make it easier to have a meal delivered home or to work

2. [platform according to the city /food delivery] and similar apps are faster than regular food delivery in [city name]

3. [platform according to the city /food delivery] and similar apps increase waiting times when eating at a restaurant in [city name]

4. [platform according to the city /food delivery] and similar apps have become more important since the onset of the Coronavirus crisis

COLUMNS

1. fully agree
2. tend to agree
3. neither agree nor disagree
4. tend to disagree



5. strongly disagree

6. don't know

13. Do you agree that airbnb and similar websites or apps providing short-term rental have the following effects on life in your city?

ROWS

1. Airbnb and similar apps are increasing the amount of tourism in [city name]

2. Because of Airbnb and similar apps, residential areas become more and more touristic

3. Airbnb and similar apps are making it difficult for the existing hotels and Bnbs in [city name] to attract guests

4. Airbnb and similar apps lead to higher rents for the inhabitants of [city name]

5. Airbnb and similar apps offer [city name]'s inhabitants an opportunity to earn extra money through renting out living space

6. Airbnb and similar apps have become less relevant since the onset of the Coronavirus crisis

COLUMNS

1. fully agree

2. tend to agree

3. neither agree nor disagree

4. tend to disagree

5. strongly disagree

ACTIVE ROLE ON PLATFORMS

14. Apart from being a customer on the apps or websites mentioned so far, an increasing amount of people is also using these and other platforms to earn money. Since the loosening of the (first) Corona lockdown in early May, how often, if at all, did you make use of the following ways to earn income using a website or app? This may be done using any device connected to the internet, including a PC or laptop, smartphone, tablet computer, etc.

ROWS



1. Providing a taxi service for a fee by finding passengers through [platform according to the city] or a similar website or app
2. Providing household services, such as cleaning, moving, repair works or DIY tasks, through [platform according to the city] or a similar website or app
3. Providing delivery of meals or courier services through [platform according to the city] or a similar website or app
4. Renting out or sharing your living space through Airbnb or a similar website or app
5. Helping someone organising the sharing of living space through Airbnb or a similar website or app
6. Providing professional work (consultancy, legal advice, accounting...) or creative work (writing, graphic design, web development...) through UpWork or a similar website or app
7. Providing administrative work, such as data entry or 'click work', through Clickworker, PeoplePerHour, Freelancer or a similar website or app
8. Selling or trading your possessions on a website such as [country-specific examples] or
9. Selling products you have personally made yourself on a website such as [country-specific examples] or on a personal website

COLUMNS

1. Three times a week or more
2. About once or twice a week
3. About once or twice a month
4. About once in three months
7. Less than once in three months
8. Never
9. Don't know

15. Now please think back to the time before the Coronavirus: Before the (first) Corona lockdown, how often, if at all, did you make use of the following ways to earn income using a website or app? This may be done using any device connected to the internet, including a PC or laptop, smartphone, tablet computer, etc.



ROWS

1. Providing a taxi service for a fee by finding passengers through [platform according to the city] or a similar website or app
2. Providing household services, such as cleaning, moving, repair works or DIY tasks, through [platform according to the city] or a similar website or app
3. Providing delivery of meals or courier services through [platform according to the city] or a similar website or app
4. Renting out or sharing your living space through Airbnb or a similar website or app
5. Helping someone organising the sharing of living space through Airbnb or a similar website or app
6. Providing professional work (consultancy, legal advice, accounting...) or creative work (writing, graphic design, web development...) through UpWork or a similar website or app
7. Providing administrative work, such as data entry or 'click work', through Clickworker, PeoplePerHour, Freelancer or a similar website or app
8. Selling or trading your possessions a website such as [country-specific examples] or
9. Selling products you have personally made yourself on a website such as [country-specific examples] or on a personal website

COLUMNS

1. More often than now
 2. Same as now
 3. Less often than now
 4. Never
 5. Don't know
- 16. [If respondent indicates activity through at least one platform or app more often than never before or after the onset of the Coronavirus crisis]**

How likely is it that you will be more active earning income on [platform(s) indicated] or a similar website or app in the near future?

[scale 1 very likely to 5 very unlikely]



17. [If respondent indicates no activity through the platforms or apps mentioned]

How likely is it that you will be earning income on one of the platforms or apps just mentioned in the near future?

[scale 1 very likely to 5 very unlikely]

18. [If once or twice per week or more frequently for the respective kind of app before or after the onset of the Coronavirus crisis] You have indicated that you are active through [insert app] [insert frequency]. How many hours do you usually spend per week with work, transactions or other activities through this kind of app?

indicate hours

19. [If once or twice per week or more frequently for the respective kind of app before or after the onset of the Coronavirus crisis] And at what times are you typically active through [insert app]?

1. whole days during the week
2. in between other tasks/assignments
3. mornings, evenings, nights
4. weekends
5. holidays

20. [If once or twice per week or more frequently for the respective kind of app before or after the onset of the Coronavirus crisis] How much do you typically earn through [insert app] per month?

Indicate gross earning per month

21. [If the respondent has indicated work/activity through at least one website or app before or after the onset of the Coronavirus crisis]

Which of the following statements applies best to your current employment situation?

1. The work I do through [insert websites/apps indicated by respondent] is my main source of income
2. I combine work assignments through [insert websites/apps indicated by respondent] with other kinds of paid work without having one main paid job
3. I have a main paid job and regularly use [insert websites/apps indicated by respondent] to earn additional income
4. I have a main paid job and occasionally use [insert websites/apps indicated by respondent] to earn additional income



5. show this item only, if code 5 or 6 at occupation: I am currently in education/on parental leave/looking for a main paid job and use [insert websites/apps indicated by respondent] to earn additional income and gain work experience

22. [If the respondent has indicated no work/activity through websites or apps]

Which of the following statements applies best to your current employment situation?

1. I have a main paid job and don't use the internet to earn additional income
2. I combine work assignments (none of which are mediated through a website or app) without having one main paid job
3. show this item only if code 5 or 6 at occupation: I am currently in education/on parental leave/looking for a main paid job and don't use the internet to earn additional income

23. Has your employment situation changed since the onset the Corona crisis, and if so, in which of the following ways?

1. My employment situation has not changed since the onset of the Corona crisis
2. I lost my main paid job
3. I reduced the working time in my main paid job
4. I found a new main paid job
5. The frequency of my work assignments through [...] decreased
6. The frequency of my work assignments through [...] increased
7. I earn more additional income through [...] than before
8. I earn less additional income through [...] than before

LABOUR PROCESS

24. [If respondent indicated main paid job or a combination of work assignments] In your main occupational activity, are you able to choose...

1. the order of your tasks
2. your methods of work
3. your speed or rate of work

25. [If respondent indicated main paid job or a combination of work assignments] Which of the following statements applies to your main occupational activity?

ROWS

1. My colleagues help and support me



2. My superior helps and supports me
3. I am consulted before objectives are set for my work
4. I am involved in improving the work organisation or work processes of my department or organisation
5. I can take a break when I wish
6. My job gives me the feeling of work well done
7. I am able to apply my own ideas in my work
8. I have the feeling of doing useful work
9. I know what is expected of me at work
10. I experience stress in my work
12. My job requires that I hide my feelings
13. There is a clear-cut boundary between my working hours and my free time
14. The work I do depends on one or more digital devices/apps/programs
15. My superior has the possibility to know where I am and what I am working at in real-time (digital supervision)
16. Customers/clients can rate the quality of my work
17. Ratings by customers/clients affect my chances to acquire new customers/clients/jobs
18. I can object to an unjustified rating by a customer/client

COLUMNS

1. Always
2. Most of the time
3. Sometimes
4. Rarely
5. Never
6. Don't know/prefer not to say



7. Not applicable to my work

26. [If the respondent has indicated work/activity through at least one website or app]

In the work you do through [insert websites/apps indicated by respondent], are you able to choose or change...

1. your order of tasks
2. your methods of work
3. your speed or rate of work

27. [If the respondent has indicated work/activity through at least one website or app]

Which of the following statements applies to the work you do through [insert websites/apps indicated by respondent]?

ROWS

1. My colleagues help and support me
2. My superior helps and supports me
3. I am consulted before objectives are set for my work
4. I am involved in improving the work organisation or work processes of my department or organisation
6. I can take a break when I wish
8. My job gives me the feeling of work well done
9. I am able to apply my own ideas in my work
10. I have the feeling of doing useful work
11. I know what is expected of me at work
13. I experience stress in my work
14. My job requires that I hide my feelings
15. There is a clear-cut boundary between my working hours and my free time
16. The work I do depends on one or more digital devices/apps/programs
17. My superior has the possibility to know where I am and what I am working at in real-time (digital supervision)



18. Customers/clients can rate the quality of my work

19. Ratings by customers/clients affect my chances to acquire new customers/clients/jobs

20. I can object to an unjustified rating by a customer/client

COLUMNS

1. Always

2. Most of the time

3. Sometimes

4. Rarely

5. Never

6. Don't know/prefer not to say

7. Not applicable to my work

GENERAL ONLINE BEHAVIOUR

28. Since the loosening of the Corona lockdown in early May, how often, if at all, did you do the following things online? This may be done using any device connected to the internet, including a PC or laptop, smartphone, tablet computer, etc.

ROWS

1. Do remote work from home (including online meetings)

2. Order grocery products through websites or apps

3. Shop for non-grocery products through websites or apps

4. Rate the quality of recently purchased goods or services online

5. Look for online ratings of goods and services before purchasing them

6. Spend time on social media

COLUMNS

1. Every day

2. Most days



3. About once or twice per week
4. About once or twice per month
5. About once every three months
6. Less than once every three months
7. Never
8. Don't know

BACKGROUND VARIABLES

Which of the platforms asked were you already familiar with before today's survey?

List of platforms (different for each city)

- 1 airbnb
- 2 Uber
- 3 deliveroo
- 4

Are you....

- 1 male
- 2 female

What is your exact age?

_____ years

No answer

If no answer: May I kindly ask you to put yourself in one of the following categories?

1. 16-17 years
2. 18-24 years
3. 25-34 years
4. 35-44 years
5. 45-54 years
6. 55-64 years



What is your highest attained education?

- No education/only basic education 1
- Completed primary 2
- Completed secondary school 3
- Completed High level education (University) 4
- Completed Higher level of education (Masters, PHD, etc.)..... 5

In which of these occupational groups would you classify yourself?

- Liberal profession, self-employed, executive employee/chief officer 1
- non-executive employee, civil servant 2
- manual worker 3
- farmer 4
- student/ pupil 5
- currently not working (e.g. maternity/parental leave, managing the household) 6
- Retired 7

If code 1-4 in the question for occupational group:

To which of the following fields would you assign your main occupational activity?

	Agriculture, Forestry and Fishing
	Mining and Quarrying
	Manufacturing
	Electricity, Gas, Steam and Air Conditioning Supply
	Water Supply; Sewerage, Waste Management and Remediation Activities
	Construction
	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles
	Transportation and Storage
	Accommodation and Food Service Activities
	Information and Communication
	Financial and Insurance Activities
	Real Estate Activities



	Professional, Scientific and Technical Activities
	Administrative and Support Service Activities
	Public Administration and Defence; Compulsory Social Security
	Education
	Human Health and Social Work Activities
	Arts, Entertainment and Recreation
	Other Service Activities
	Activities of Households as Employers; Undifferentiate Goods and Services Producing Activities of Households for Own Use
	Activities of Extraterritorial Organisations and Bodies

