Digital labour platforms in the EU

Mapping and business models

FINAL REPORT

CE
PS

DISCLAIMER

Digital labour platforms in the EU

Mapping and business models

Table of contents

Abstract

This is the final report of the study on 'Digital labour platforms in the EU: Mapping and business models' for the Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL).

In total, 516 active and another 74 inactive digital labour platforms (DLPs) in the EU27 have been identified. For each of these DLPs, information on the business model has been collected and analysed. Moreover, for a sample of 38 DLPs, details on the working conditions have been collected and analysed for one or more countries.

This study illustrates that DLPs have grown rapidly in the last five years, though still small in size with EUR 14 billion in activity. DLPs act as intermediaries for a large range of activities, including freelance, contest-based, microtask, taxi, delivery, home and professional services. DLPs intermediating the same services often follow similar business models, nevertheless the working conditions can differ between these platforms and even for the same platform across countries.

Résumé

Ceci est le rapport final de «Les plateformes de travail numériques dans l'UE: cartographie et modèles d'affaires» pour la Direction Générale de l'emploi, affaires sociales et inclusion (DG EMPL).

Au total, 516 plateformes de travail numériques (DLPs) actives et 74 DLPs inactives sont identifiées dans l'UE 27. Pour chacune de ces plateformes les données sur le modèle d'affaires sont collectées et analysées. En outre, pour la sélection de 38 plateformes les données sur les conditions de travail sont évaluées pour un ou plusieurs pays.

Cette étude illustre la croissance rapide des plateformes de travail numériques au cours des cinq dernières années. Les DLPs assurent l'intermédiation d'une large gamme d'activités, notamment la livraison, le transport de personnes, le travail du clic, le nettoyage, l'enseignement, le bricolage, le baby-sitting, etc. Les plateformes qui assurent l'intermédiation des mêmes services suivent souvent les modèles d'affaires similaires, néanmoins les conditions de travail peuvent varier d'une plateforme à l'autre, même pour la même plateforme à travers les pays.

Executive summary

Digitalisation is not only changing the nature of jobs, workplaces and skills development, but also the way work is allocated. **Digital labour platforms (DLPs)** are driving innovation in the allocation of work, with a more important role for algorithmic management.

DLPs are defined as private internet-based companies that act as intermediaries, with greater or lesser extent of control, for on-demand services requested by individual or corporate consumers. The services are provided directly or indirectly by natural persons, irrespective of whether such services are performed in the physical or online world.

Considering the transformation, differences compared to offline intermediation and the continuous changes in scope and business models of DLPs operating in the European Union, it is important for policy makers at national and EU level to monitor the developments of the DLP economy.

Objectives of the study

The general objective of this study is to provide evidence to EU policy makers about specific aspects of DLP business models and their implications for the working conditions of people working through platforms. It has three specific objectives:

- Identify trends in DLPs over the five years from 2016 to 2020

- Provide an overview of the latest digital labour platform landscape in the EU27

- Assess the working conditions of people working through platforms across different business models

Methodology

The main methodological element of this study is a database covering all identified DLPs that are, or have been, active in the EU27 between 2015 and March 2021. In total it covers almost 600 DLPs, of which 516 were active in March 2021. The DLPs were identified based on existing repositories and an assessment of the largest platforms, as well as web searches. With this methodology, at least the larger DLPs operating in the EU27 should be captured, making the results representative of activity in the DLP economy in the EU27.

For each of the DLPs identified, a set of basic, platform and business model indicators were collected using desk research. Moreover, for each of the DLPs, the total size, platform revenues, earnings of the people working through the platform and potential fourth-party revenues created through the platform were estimated for their DLP activity in the EU27. These size indicators were determined with tailored methodologies for a set of larger DLPs, which served as a reference for the other DLPs. The values of the larger reference platforms were rescaled based on their relative search intensity, taking into account differences in size, time, customer retention and, when applicable, non-DLP activities and turnover.

The working conditions indicators were collected for a representative selection of active DLPs, consisting of 38 active DLPs, including eight on-location platforms for which two or more countries were covered. The total number of country-DLP observations with regard to working conditions is therefore 52. The DLPs were selected to cover a large part of the DLP activity in the EU, as well as to reflect the diversity in types of services, geographical coverage, International Labour Organization (ILO) and Eurofound typologies, alternative legal forms and source of revenue.

In addition to the database with information on the DLPs active in the EU27, the analysis is further complemented by desk research, semi-structured interviews and a validation workshop.

Landscape and development

The number of DLPs active in the EU27 has increased from 463 in 2016 to 516 in March 2021. In recent years, however, net growth in DLPs has slowed down significantly. This can be explained by a decrease in the number of newly launched DLPs, and an increase both in the number of DLPs taken offline due to limited longer-term viability, and in merger and acquisition (M&A) activity.

Nevertheless, the DLP economy in the EU27 has increased almost fivefold during the same period, from an estimated EUR 3.4 billion in 2016 to about EUR 14 billion in 2020. The majority of this activity falls under taxi and food delivery services, both of which were strongly impacted by the COVID-19 outbreak (-35% and +125% respectively).

The earnings of people working through platforms have only increased by about 2.5 times in the past five years, from an estimated EUR 2.6 billion in 2016 to EUR 6.3 billion in 2020. About half of this amount is earned by people active on the top five DLPs, involving predominantly food delivery and taxi services. The total earnings of people working through platforms are estimated to have decreased somewhat due to COVID-19.

The difference in growth between the total DLP economy and the earnings of people working through platforms has increased in the past five years, primarily due to the surge in importance of DLPs involving fourth parties such as restaurants.

Estimated earnings of people working through platforms in the EU27 by type (EUR billion)
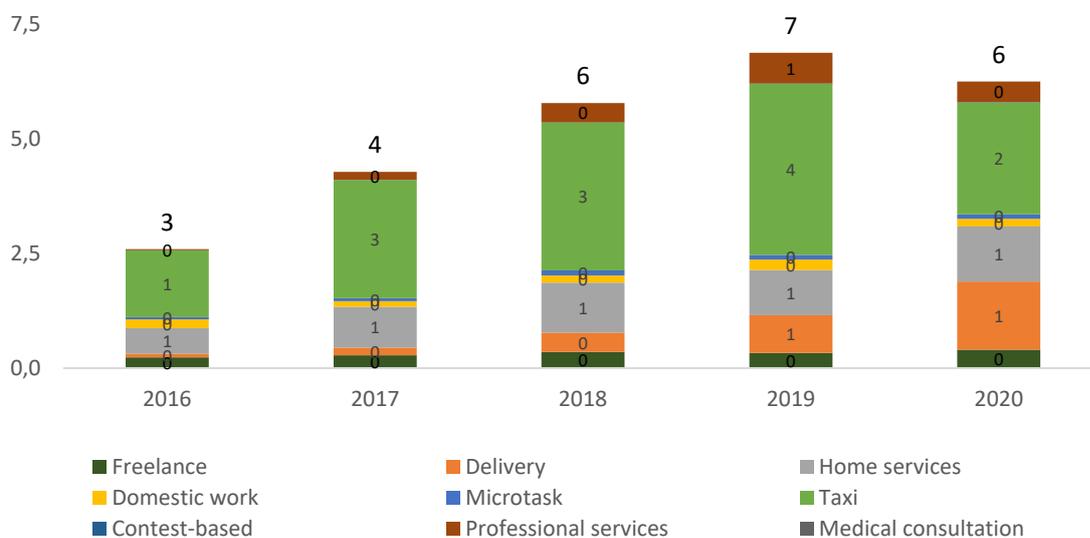
Source: Authors' estimations based on dataset of DLPs active in the EU27.

The **employment status** of the large majority of people working through DLPs in the EU27 can be classified as self-employed (92% of active DLPs and 93% in terms of earnings of people working through platforms). The remainder of people working through platforms have various types of work agreements, including full-time, part-time, temporary agency work and zero-hour contracts.

Platforms with their **origin** outside the EU27 play an important role in the EU27 DLP economy (23% of active DLPs and 49% in terms of earnings). Most of these platforms intermediating on-location services nevertheless have an office in the EU, whereas the platforms intermediating online services tend not to have an office in the EU. In total, less than a tenth of the work done through DLPs is provided through platforms without an office in the EU.

Business models

The large majority of DLPs active in the EU are for-profit companies, but there are also some not-for profit companies such as cooperatives (6% of active DLPs and less than 1% in terms of earnings).

The DLPs are very diverse in intermediated services and business models (geographical coverage, services intermediated, skills required, delivery of the service, selection process, matching form, revenue models and types of clients). The types of intermediated services and required skill level are especially relevant to the working conditions.

In total, an estimated 90% of intermediated DLP services are on-location services, taxi and delivery being the most important services (63% in terms of earnings), followed by home services, professional services and domestic work (29% in terms of earnings). Online services such as microtasks, freelance, contest-based and medical consultations account for the remaining work (less than 10% in terms of earnings).

The large majority of services require low and, to a lesser extent, medium skills. Low and medium skills combined account for almost 90% of the intermediated work in terms of earnings. High skills are responsible for about 6% of intermediated DLP work in the EU.

Skill level required to perform service on DLPs active in the EU27 (earnings of people working through DLPs)

High (EUR 0.4bn - 6%)
All (EUR 0.3bn - 4%)
Medium-high (EUR 0.03bn - 0%)
Medium (EUR 0.1bn - 2%)
Low-medium (EUR 1bn - 18%)
Low (EUR 4bn - 70%)
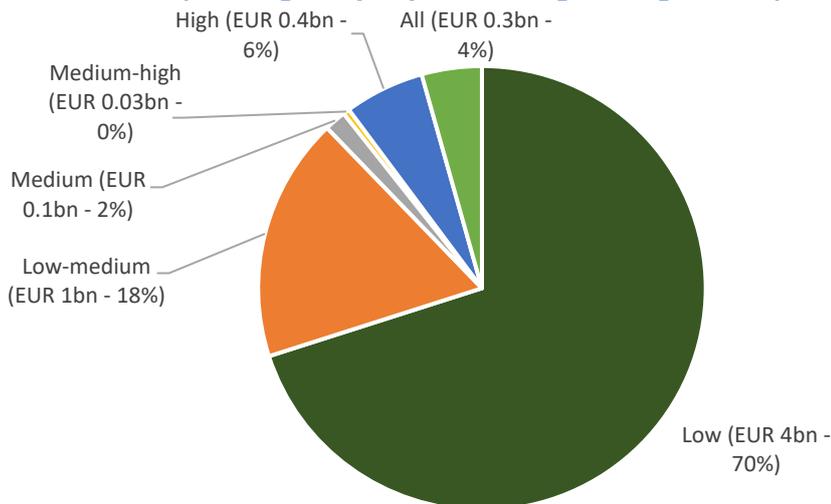
Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Although most of the services are delivered to natural persons (83% in terms of earnings), a minority of services are provided to businesses or a combination of natural persons and businesses.

Most DLPs involve three parties (clients, people working through the platform and the platform itself). However, a substantial minority of tasks (23% in terms of earnings) involve other parties such as restaurants and grocery stores.

The large majority of DLPs (75% of active DLPs and 90% in terms of earnings) depend on commissions as their primary source of revenue. These are mostly cut from the payment made by the client to the person delivering the service through the platform, or from the payment of the fourth party involved in the transaction (e.g. restaurants). The price of the intermediated service can be set by the platform, worker or client. In some DLPs, such as those for freelancers, prices may be negotiated between the worker and the customer, or may be proposed by the worker on a 'take it or leave it' basis. Clients can also search for specific workers (by skill, location, rating, etc.), who set an hourly rate for their services.

However, there are also other revenue models that require the person delivering the service through the platform, or the client, to pay a subscription fee. In some cases this model implies costs for people working through DLPs without guaranteed earnings. In addition, a substantial minority of DLPs (14% of active DLPs and 12% in terms of earnings) earn additional revenues through other activities, such as IT and rental services.

Overall, the majority of large DLPs intermediating specific services seem to be converging to similar models, most through merger and acquisition (M&A) activity, collaboration and the adoption of proven models.

Business models and working conditions

Working conditions are assessed following the adjusted work, employment and social dimensions (WES) model. The analysis is based on a representative sample of 52 observations.

Work dimension

Looking at autonomy, about three-quarters of people working through the selected DLPs in the EU27 have a low level of autonomy. This is most common for taxi and delivery services, which represent a high share of people working through platforms expressed in terms of earnings. In contrast, on other types of location-based DLPs and online web-based platforms, autonomy tends to be relatively higher.

Autonomy in allocation of tasks on selected DLPs active in the EU27
(Share of earnings of people working through DLPs – N=52)
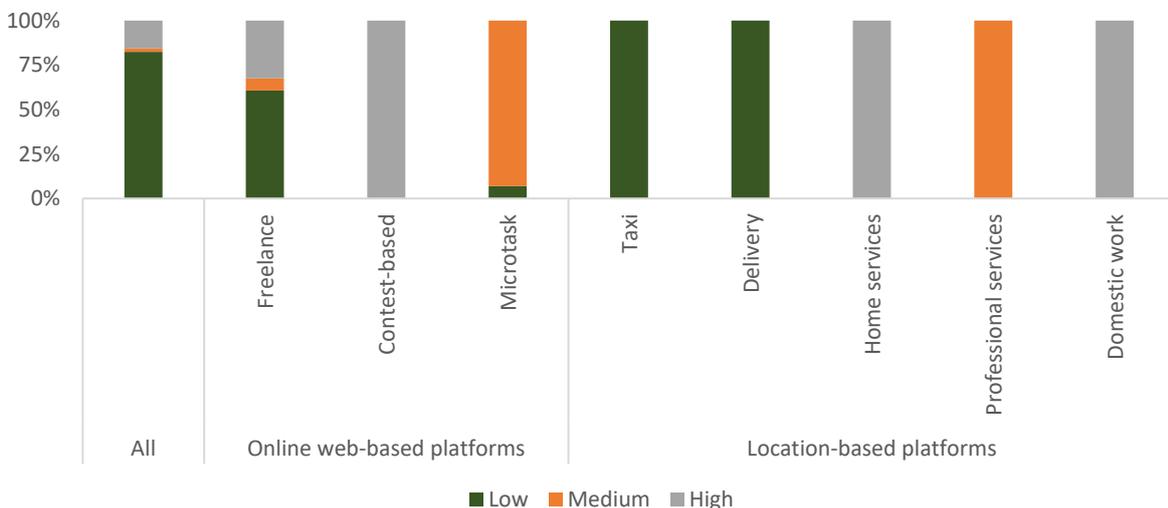
Source: Authors' estimations based on dataset of DLPs active in the EU27.

Similarly, direction from either the platform or the client, or both, is common across DLPs. The latter is particularly important for platforms with on-location taxi and delivery services, as well as online web-based freelance services. For other types of location-based services, receiving direction only from the client prevails. The only situation when neither DLPs nor clients provide direction is when tasks are intermediated based on contests.

Many platforms seek to control the behaviour of people working through platforms, which is achieved through detailed monitoring of their activities. Surveillance by DLPs is especially common in location-based taxi and delivery as well as freelance services. In contrast, people working through platforms in home services, professional services or domestic work tend to be overseen by the client.

Ratings from clients form a further significant aspect in the evaluation. Customer rating systems are implemented on many platforms and often feed into the monitoring of worker activities. On-location services tend to be appraised by both the platform and the client, whereas online services are generally only appraised by the client.

The allocation, direction and evaluation of work is often executed through algorithmic management.

Employment dimension

The business models of DLPs have important implications for the employment status of people working through platforms. By positioning themselves as an intermediary between the customer and the service provider, DLPs can shift most of the costs, risks and liabilities to other parties, usually the person working through the platform as self-employed and the client. The employment status is only made clear by the minority of DLPs in their terms and conditions (T&Cs).

Of the selected DLPs, less than 5% of earnings are made by people working through the platforms based on a work contract, almost all of which platforms are providing delivery work. In addition, of the DLPs charging subscription fees to the people working through the platform, these fees are not directly linked to earnings. Unlike the salaried employees, these people need to pay for their work. The dominant business models, nevertheless, remain those where people working through platforms, the platforms themselves and potential fourth parties (e.g. restaurants) share the revenues obtained from the clients.

The large majority of people working through the selected DLPs are, according to the information available, free to choose and change their working time, in that they themselves can log onto the platform when they like or can choose their hours of availability. Only an estimated 3% of earnings of people working through selected platforms are locked into an agreed working time. Moreover, none of the DLPs surveyed included an 'exclusivity of services' provision in their T&Cs.

In most countries, a person's level of protection is linked to their employment status, with self-employed people being less protected than employees. Indeed, apart from a few exceptions, people working through platforms do not automatically receive social protection such as health insurance, sickness benefits, maternity benefits, old age/survivors' pensions, invalidity benefits and family benefits.

Decisions about, for instance, account suspension and termination are often made by an algorithm. If people working through platforms feel they have been treated unfairly by the algorithm, there is often no dispute resolution mechanism in place. In the sample analysed, the majority of selected DLPs did not seem to offer any dispute resolution for people working through platforms. Of those that did offer a dispute resolution mechanism, half provided a human contact point to review and reconsider decisions, while the other half provided a dispute resolution process arbitrated by a third party. However, as human review tended to be available on platforms intermediating on location-based taxi services, the number of people working through the selected platforms expressed in earnings indicated that most people working through platforms do have access to a dispute resolution mechanism.

Social dimension

People working through platforms are often performing their tasks in isolation, which introduces challenges in terms of collective bargaining. This is especially challenging for platforms intermediating online services where the people providing the services are dispersed across countries.

Virtually none of the selected DLPs stipulate the right of people working through platforms to collective bargaining. DLPs responsible for about 95% of earnings have no stipulation as to collective representation rights. Only a minority of DLPs include clear mechanisms for collective representation, all of which act as intermediaries for on-location services.

About two-thirds of people working through platforms in terms of earnings have access to some measures to prevent discrimination and promote equity. Most of these people work through platforms intermediating taxi services, which tend to have a policy against discrimination.

Conclusions

Overall, there are very large differences in the business models of DLPs active in the EU27 when looking at their origin, geographical coverage, services intermediated, skills required, delivery of service, selection process, matching form, revenue model and type of client. However, looking at the most active DLPs intermediating specific services, there seems to be a convergence to similar models. Moreover, most activity is currently concentrated in taxi and (food) delivery services.

There are some important specificities of platform work to keep in mind based on the business model characteristics.

- DLPs frequently require the people delivering the service to be organised as **self-employed**, or at least do not give them an employment contract. There are concerns about bogus self-employment in the delivery of particular services, as well as less access to social protection, barriers to collective organising, income insecurity, and waiting and searching costs.

- People providing services through platforms are directed using **algorithmic management**, which can reinforce existing or introduce new biases and make potentially erroneous decisions. This absence of human interaction can further limit autonomy and control, as well as lack effective dispute resolution.

- **Competition** for the delivery of certain tasks – especially for online services – is fierce, as tasks become available to people working through the platform everywhere in a certain area or even around the world, including jurisdictions with lower labour costs in or outside the EU.

Lastly, the business models and related working conditions for people working through platforms are likely to continue to evolve in the coming years. Developments in the business models of the DLPs active in the EU27 should therefore continue to be monitored in the years to come.

1. Introduction

Labour markets are being transformed by processes such as automation, digitalisation and ecological transformation. These transformations are changing the nature of jobs, workplaces and skills development, which has important implications for businesses and workers. The COVID-19 pandemic, associated with an increase in teleworking and online services, is an accelerator of the digital transformation.

One important development driving change in labour markets is the increase in **digital labour platforms** (DLPs), which are defined as private internet-based companies that act as intermediaries, with greater or lesser extent of control, for on-demand services requested by individual or corporate consumers. The services are provided directly or indirectly by natural persons, irrespective of whether such services are performed in the physical or online world (see simplified graphic impression in Figure 1).

Figure 1 Simplified conceptualisation of digital labour platforms
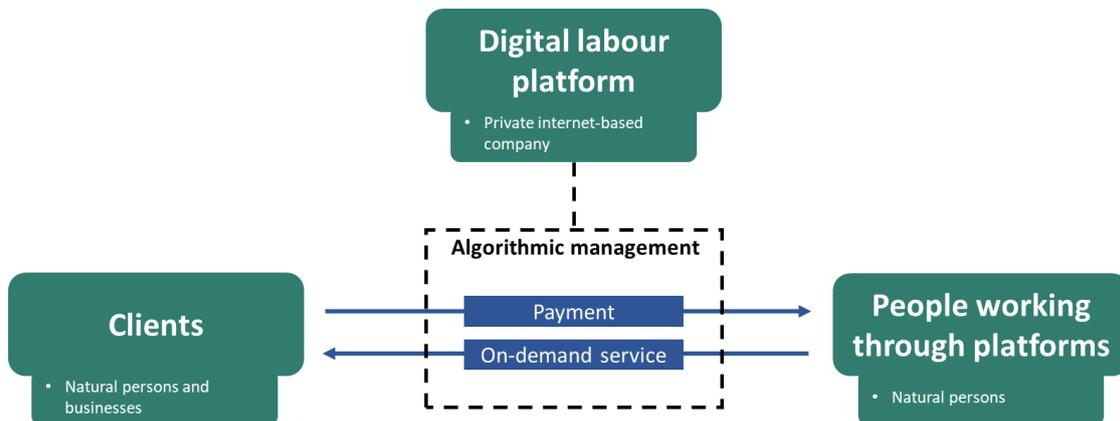
Note: The figure above simplifies very heterogeneous arrangements involving people working through platforms. Additional parties (e.g. temporary work agencies and additional businesses such as restaurants) may be involved, and clients can be legal as well as natural persons.

Source: Authors' conceptualisation based on CEPS, EFTHEIA and HIVA-KU (2020).

A more detailed understanding of the DLPs active in the EU27 is important for policy making, as their relevance to the EU economy is growing with their rapid expansion, having implications for the working conditions of the people working through these platforms. The impact on working conditions may depend strongly on the type of platform work and business model, however, and may be especially acute for vulnerable groups.

Platform work may present challenges for people's working conditions in several ways. People working through platforms often face vulnerabilities, such as a lack of access to certain social, labour and health and safety protections (Garben, 2019). As platform work has disrupted the idea of clearly delineated working times, it may be associated with higher work intensity and speed pressure, in turn associated with stress and anxiety (CEPS, EFTHEIA and HIVA-KU, 2020). People working through platforms also face particular pressure due to high levels of competition and worker dependence on ratings (Risak, 2017). Moreover, people working through platforms are exposed to particular health and safety risks, as it is often unclear how existing regulations apply (or not) to them, and the protective factors of a physical workspace do not exist (EU-OSHA, 2017). They usually receive little or no training, and have low prospects of career advancement (Forde et al., 2017). The profile of many people working through platforms closely fits that of vulnerable workers, for example young people or other individuals who may struggle to participate in the traditional labour market (migrants, disabled, etc.). These individuals may be particularly vulnerable to disadvantageous working conditions associated with platform work (CEPS, EFTHEIA and HIVA-KU, 2020). However, these

challenges are expected to apply in different degrees to different kinds of platform work, given the great heterogeneity in tasks associated with it (Eurofound, 2018).

While the part of the platform economy involving DLPs may still be relatively small in scale, it has been growing rapidly in the past few years. The COVID-19 pandemic has stalled growth in certain segments (e.g. taxi and professional services), while spurring growth in others (e.g. delivery). Moreover, COVID-19 poses particular challenges to people working through platforms, mostly related to differences in employment status. People working through platforms are mostly self-employed and generally receive less protection than people having worker status.

1.1. Policy context

Given that DLPs are changing rapidly, an overview of the scope and business models of labour platforms in the European Union is pertinent to better inform policy makers and other stakeholders about the working conditions of people working through platforms.

At EU level, policy debates have already been highlighting the importance of DLPs for several years. The increasing relevance of DLPs in the EU policy agenda, illustrated by the framework of the Digital Single Market (DSM) Strategy, is motivated by the understanding that platform work can play an important role in the digitalisation process and the potential innovation fuelled by it. Such innovation, in turn, is crucial for the EU economy, thus calling for EU-level intervention to develop synergies and boost investments across Member States (European Commission, 2017).

The EU institutions are looking into issues related to people working through platforms, including precarious working conditions, as evidenced by actions over the past five years. For example, the European Commission (2015) discussed the contribution of online platforms to entrepreneurship and innovation in the DSM Strategy. Subsequently the Commission (2016) released *A European agenda for the collaborative economy*, raising potential benefits of platforms for clients and workers, alongside pending uncertainties. The European Parliament called on the Commission to expand the Written Statement Directive to cover all forms of employment, and for a Framework Directive on decent working conditions to 'include minimum standards for people working through platforms', accounting for International Labour Organization (ILO) Recommendation No 198 on the indicators of an employment relationship (European Parliament, 2017). Subsequently, Sundararajan (2017) prepared a report identifying several key economic impacts and characteristics of the collaborative economy, focusing on 'crowd-based capitalism'. In 2019, the Directive on transparent and predictable working conditions was adopted.

Most recently, in its communication on *A strong social Europe for just transitions,* the Commission (2020a) confirmed its intention to ensure better working conditions for people working through platforms, while the Commission's (2020d) communication on *Shaping Europe's Digital Future* further emphasised the intent to announce an enhanced framework for people working through platforms. In its pandemic response plan *Europe's moment*, the Commission (2020c) further recognised that digitalisation has become fundamental to a fair and inclusive recovery from the pandemic. Finally, in its Work Programme for 2021, the Commission (2020b) announced a legislative proposal to improve the working conditions of people providing services through platforms. This initiative was subject to a formal consultation of European social partners, of which the first stage was launched in February 2021 and concluded in April 2021.

1.2. Objectives of the study

The general objective of this study is to provide evidence about specific aspects of DLPs and the working conditions of people working through them. The general objective is detailed in three specific objectives:

- Provide an overview of the latest labour platform landscape in the EU27 ([1])

- Identify trends over the five years from 2016 to 2020 ([2])

- Present an analytical framework to classify different business models with respect to their impact on the working conditions of people working through platforms

1.3. Reading guide

The remainder of this study provides a methodological chapter, three analytical chapters and finally a concluding chapter.

Chapter 2 provides a brief overview of the methodology used to identify, estimate the size of and classify the platforms, and to assess the business models and working conditions. Although most of the study is based on desk research, the research team also conducted interviews and a workshop to obtain information not available through desk research and to validate the main results. Chapter 2 also discusses the main limitations of the methodology applied and how these have been mitigated.

Chapter 3 provides an overview of the latest labour platform landscape in the EU27 and how this have evolved over the past five years. This overview covers a range of stylised facts, including developments in the number, origin, location of activities, turnover and earnings of people working through DLPs.

Chapter 4 analyses the business models of DLPs active in the EU27. The main aim of the analysis is to better understand the plan or rationale of DLPs to reach their objective (making profit, creating jobs, etc.). This analysis covers the structure and revenue sources of the platforms, as well as the main characteristics of the people working through the platforms and their clients.

Chapter 5 assesses working conditions across a selection of business models and countries. This assessment is based on the WES model ([3]). The DLPs have been classified according to the skill level required to perform a task, type of service, selection process and geographical activity.

Chapter 6 draws the main conclusions regarding the trends and status quo in the business models of DLPs active in the EU27.

---

[1] Some evidence may discuss the United Kingdom and other non-EU Member States, as required to elaborate on the development of platform work. For example, the research team will consider whether platforms originated in the United States or Europe, factoring this into the main objectives.

[2] However, annual account information will be taken from the most recent book year available (generally 2019).

[3] This study uses the adapted WES framework (CEPS, EFTHEIA and HIVA-KU, 2020) to analyse working conditions, covering three dimensions (work, employment and social dimension).

2. Methodology

The methodology used for this study includes the creation of a database with information on DLPs active in the EU27, covering indicators for the landscape and development, business models and working conditions. The analysis on the database is further complemented by desk research, semi-structured interviews and a validation workshop. The main limitations in relation to the research methodologies are discussed at the end of the chapter.

2.1. DLP database

For this study a database of DLPs was created, covering active DLPs as well as those that were deactivated between 2015 and March 2021. The latter were included to also account for the trends in the past five years. The methodology for the database was designed to be representative of the activity and diversity of the DLPs active in the EU27.

2.1.1. Identification of platforms

No single data source provides a comprehensive overview of platforms across any industry or geographic market (Lehdonvirta et al., 2020). For this reason, a combination of primary and secondary sources were used to identify the DLPs that are still or were active in the period between 2016 and March 2021 in the EU27. The list of DLPs was based on a combination of existing EU and global lists, as well as national and platform group lists:

- Eurofound list of DLPs

- Joint Research Centre (JRC) (2017)

- ILO (2021)

- Additional searches focusing on the larger EU countries (France, Germany, Italy, Poland and Spain) as well as Belgium (official lists) and the Netherlands (known to have a relatively large number of DLPs)

- Platforms that are part of, or have been acquired by, one of the larger platforms (e.g. Deliveroo, Delivery Hero, Just Eat Takeaway and Uber)

This approach was chosen to increase the likelihood that at least all of the larger DLPs in terms of size (turnover above EUR 1 million per year) were covered, thereby providing a representative overview of the DLPs active in the EU27.

For each platform it was determined whether it qualified as a DLP and was active in the EU27 between 2016 and March 2021. All of the DLPs identified that were active in the EU27 in March 2021 are presented in Annex I.

2.1.2. Coverage of dataset

A combination of primary and secondary sources (market analysis reports, government reports and academic literature) were combined to gather the indicators on the DLPs, which can be organised into four different groups:

- Basic description

- Platform classification

- Business model

- Working conditions

The specific indicators are indicated by bullet points. Where data are categorical, the categories appear in parentheses, for example the data point 'Skill level required to perform task' has the possibilities low, medium and high.

2.1.2.1. Basic description

These data are the most basic identifiers for a platform. They serve primarily to identify the DLP, where it operates and when it was or still is active.

- Name
- Former name/s
- Other alias/es
- Legal responsible entity
- Country of origin
- Country of EU headquarters
- Countries of operation ([4])
- Year of activation and deactivation
- Status (active/inactive)
- Website
- Registration number
- Terms and conditions (T&Cs covering people working through platforms publicly available, or not)

2.1.2.2. Platform classification

Platform classification serves to identify the type of DLP and type of service(s) intermediated. This followed a 'reverse typology' approach, covering the constituent elements of typologies from Eurofound, the Collaborative Economy and Employment (COLLEEM) research project and the ILO.

The Eurofound typology requires the following elements:

- Skill level required to perform task (low, low-medium, medium, medium-high, high, all)
- Type of service delivered (online, on-location, both)
- Selection process (decision made primarily by platform, client, worker or combinations of these)
- Form of matching (offer, contest)

The elements underlying the Eurofound typology are also used to assess the impact of business models on working conditions, as Eurofound (2018) considered these elements also to be the main drivers of working conditions. The matching has been replaced by geographical activity, as nearly all platforms use offers rather than contests, and some on-location DLPs offer different working conditions depending on the national social and working context. The results are presented in Annex III.

---

[4] These data will only indicate the countries of operation as of December 2020. In many cases, platforms expand over time, but it is time consuming to track growth country by country for all platforms. Such analysis will be limited to the selection of platforms where detailed data (including working conditions data) are gathered.

COLLEEM's typology is primarily concerned with the type of task performed. As it appears below, it has been modified slightly to provide additional granularity for on-location workers.

- Online clerical and data-entry tasks (e.g. customer services, data entry and transcription)

- Online professional services (e.g. accounting, legal and project management)

- Online creative and multimedia (e.g. animation, graphic design and photo editing)

- Online sales and marketing support (e.g. lead generation, posting of ads, social media management and search engine optimisation)

- Online software development and technology (e.g. data science, game development and mobile development)

- Online writing and translation (e.g. article writing, copywriting, proofreading and translation)

- Online micro tasks (e.g. object classification, tagging, content review and website feedback)

- Online interactive services (e.g. language teaching, interactive lessons and interactive consultations)

- On-location personal transportation services (e.g. taxi-like services)

- On-location delivery services (e.g. food delivery, moving services and grocery pickup)

- On-location domestic work (housekeeping/cleaning, babysitting/childcare and healthcare/caretaking)

- Other on-location services (e.g. gardening or landscaping, beauty services, on-location photography services and 'retail intelligence')

The typology of ILO (2021) is primarily concerned with the location where the task is performed and the type of task intermediated by the DLP. This typology considers both the type of digital labour platform and the revenue model. As it appears below, it has been modified slightly to reflect the various modifications included in the report.

- Online web-based platforms
  - Freelance
  - Contest-based
  - Microtask
  - Competitive programming
  - Medical consultation

- Location-based platforms
  - Taxi
  - Delivery
  - Home and care services
  - Domestic work

The classification of economic activity and occupation according to international standards is also included:

- Statistical Classification of Economic Activities in the European Community – NACE (section a. agriculture, forestry and fishing; section b. mining and quarrying; section c. manufacturing; section d. electricity, gas, steam and air conditioning supply; section e.

water supply, sewerage, waste management and remediation activities; section f. construction; section g. wholesale and retail trade; repair of motor vehicles and motorcycles; section h. transportation and storage; section i. accommodation and food service activities; section j. information and communication; section k. financial and insurance activities; section l. real estate activities; section m. professional, scientific and technical activities; section n. administrative and support service activities; section o. public administration and defence; compulsory social security; section p. education; section q. human health and social work activities; section r. arts, entertainment and recreation; section s. other service activities; section t. activities of households as employers, undifferentiated goods-and services-producing activities of households for own use; section u. activities of extraterritorial organisations and bodies)

- International Standard Classification of Occupations – ISCO (1. managers; 2. professional; 3. technicians and associate professionals; 4. clerical support workers; 5. service and sales workers; 6. skilled agricultural, forestry and fishery workers; 7. craft and related trades workers; 8. plant and machine operators, and assemblers; 9. elementary occupations; 10. armed forces occupations)

Note that many platforms offer different types of tasks or different means of intermediating them. For this reason, the DLPs can be classified across different types of tasks and services.

2.1.2.3. Business model

The term 'business model' broadly refers to a company's plan or rationale for making profit. This typically includes elements like source(s) of revenue, target customer base and financing details.

The following indicators were collected:

- Primary revenue source (commissions, subscription, advertising, etc.)
- Employment status of people working through platforms (self-employed and work agreement)
- Non-DLP activities (market place, software, car sharing, etc.)
- Additional parties involved besides the DLP, people working through the platform and clients (description)
- Client type (primarily natural persons, primarily businesses, both, undetermined)

In addition, four size indicators were included for each of the DLPs for the period 2016 to 2020:

- Total size of the DLP economy
- Platform revenues
- Platform worker earnings (excl. platform revenues)
- Fourth-party revenues (excl. commissions and fees to platforms)

The selected indicators are mostly derived from audited financial figures with a broadly comparable base. Other figures were considered, such as the number of people providing services through DLPs, but were ultimately not included because of insufficient reliable and comparable information on key indicators to come to reliable estimates.

Barely any of the size indicators are readily available for the DLPs active in the EU. Only part of the DLPs publish financial accounts, but these often cover non-DLP activities and activities outside the EU27 as well. Moreover, these often do not provide the earnings of platform workers or fourth-party revenues.

Nevertheless, in order to obtain a good indication about the size and development of the DLP economy in the EU27 from a labour perspective, a model has been defined to estimate the size indicators for each of the active DLPs.

In simple terms, the indicators have been estimated in greater detail for 26 large DLPs for which sufficient information was available to estimate the indicators with limited uncertainty. A selection of nine DLPs covering eight different types of services in line with the ILO typology and employment status of people working through platforms, which have similar business models and similar relations between their economic and online activity, serve as reference platforms. The indicators for most of the more than 500 active DLPs have been estimated based on their online activity relative to the reference DLP with the same type of services and employment status. More specifically, the reference values are adjusted based on their relative size, their presence in the EU27 and their difference in growth, and exclude the regional presence of non-DLP activities and that returning customers reduce the search intensity.

The main assumption underlying this model is that search intensity is a good indicator of the relative activity of a DLP intermediating similar types of services, and employment status of the people providing services through the platform.

Overall, more than half of the EU's DLP economy is estimated based on models tailored to the platform, with the remainder derived from the reference DLPs following the model described above. Details about the model can be found in Annex II.

2.1.3. Working conditions

Working conditions, also known as job quality, are a multi-disciplinary, multidimensional concept that is generally understood as 'the extent to which a job has work and employment-related factors that foster beneficial outcomes for the employee, particularly psychological well-being, physical well-being and positive attitudes such as job satisfaction' (Holman, 2013; Kilhoffer et al., 2020).

Information on working conditions was the most complex to retrieve. The same DLP can have different working conditions (pay, employment status, representation rights, etc.) in different countries, and platforms are constantly adjusting how they operate (Kilhoffer et al., 2020). Available data sources have significant conceptual and methodological differences, making it very difficult to combine them. Finally, detailed working conditions are simply unknown for most platforms, and finding them would require interviews with platform owners and workers, which is beyond the scope of the present study.

Information on working conditions was therefore collected for a more limited sample of 38 active DLPs, including eight on-location platforms for which two or more countries were covered. The total number of country-DLP observations is therefore 52. The DLPs and countries were selected based on the **size of the DLPs considering the earnings of the people working through platforms**. Indeed, all DLPs with significant activities were selected (potentially 5% or more of the earnings). For the on-location DLPs, the main countries in terms of activity are covered, with a maximum of five. The selection was further expanded with DLPs from Member States with a population of 10 million or more, and to ensure coverage of the full range of the selection elements of the Eurofound and ILO typology. Finally, DLPs were added to cover alternative legal forms (partnerships such as cooperatives and non-profit organisations), sectors and sources of revenue.

Working conditions for on-location platforms might vary by country, so working conditions data for multiple countries were collected for several DLPs. For the most relevant DLPs offering services exclusively online, working conditions data were collected at aggregate level. While differences in working conditions between countries may be present, they more likely derive from national institutions, as platforms seek to replicate their business models with as little international variation as possible. Indeed, every adjustment reduces the efficiency of the platform. This suggests limited added value in a country-by-country assessment of these

platforms intermediating online services. Moreover, it would be difficult to establish which countries are most relevant in terms of revenue, because unlike on-location DLPs, those exclusively providing online services are usually registered and operated from abroad, and do not necessarily report revenue by country.

Overall, the selection for the working conditions information collection is fairly similar to the distribution of DLPs active in the EU (see Figure 2). It includes comparatively more on-location than web-based platforms due to the coverage of several countries by some of these platforms, which act as intermediaries for tasks requiring low skills and provide a platform for the selection of people to perform those tasks. Similarly, on-location DLPs are more often active in particular EU countries than online DLPs, which explains the relative under-representation of DLPs active in all EU countries.

The working conditions are assessed across the ILO typology (see section 5), Eurofound (see Annex III) and COLLEEM (see Annex IV).

Figure 2 Distribution of DLPs for working conditions selection elements

a) ILO typology

b) Eurofound typology and geography

c) COLLEEM typology
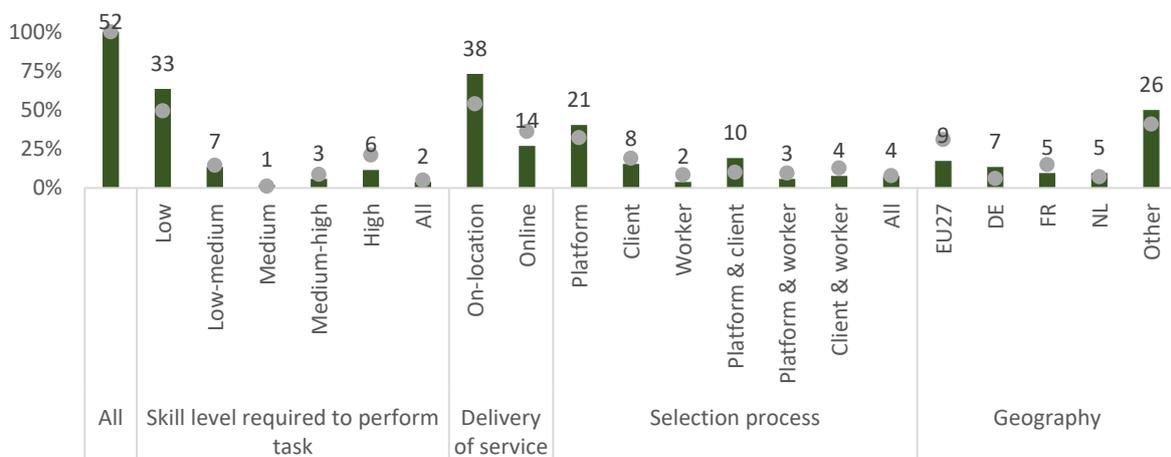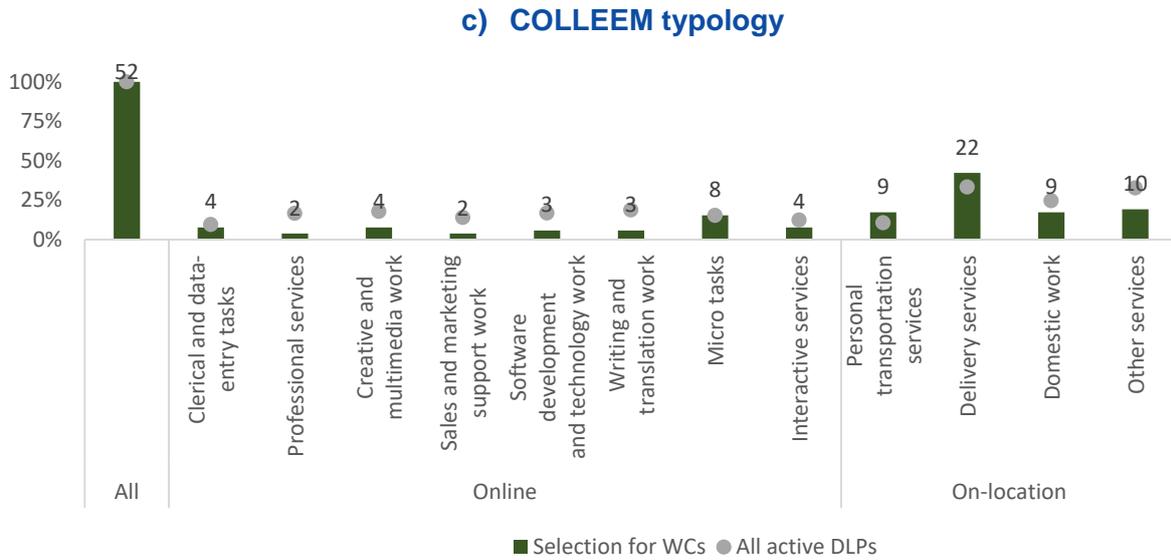
Note: The figures are based on 52 country-DLPs. For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

The specific indicators on working conditions are built on the adapted WES framework (CEPS, EFTHEIA and HIVA-KU, 2020). They are slightly adapted ([5]) and expanded upon below for data collection.

2.1.3.1. Work dimension

The work dimension covers the following indicators:

- Autonomy in allocation of tasks (people working through platform have low, medium or high autonomy in selecting tasks)

- Surveillance (no surveillance, some form of surveillance by client, some form of surveillance by platform, some surveillance by other party)

- Direction (no stipulation, direction from client, direction from platform, direction from other party)

- Performance appraisal (people working through platform are evaluated by platform, clients, or both; clients are evaluated by people working through platform; platform offers due process about decisions affecting people working through platform)

- Physical environment and safety (no stipulation, platform mitigates task-specific risks, platform actively improves working conditions)

2.1.3.2. Employment dimension

The employment dimension covers the following indicators:

- Employment status (all, some or no people working through platform have employment contract)

---

[5] To aid in operationalising these data, we also drew inspiration from the Fairwork Foundation's framework.

- Determination of employer (none, DLP, client or other party)

- Contracts (no stipulation, platform ensures clear T&Cs are available, platform's T&Cs genuinely reflect nature of relationship between platform and people working through platform)

- Dismissal and deactivation notice (notice period given or not)

- Dispute resolution ([6]) (platform offers no dispute resolution, platform provides a human to review and reconsider decision, platform provides a dispute resolution process arbitrated by a third party)

- Dispute resolution jurisdiction:

  o by definition, dispute resolution takes place in jurisdiction where work is performed

  o dispute resolution takes place in jurisdiction where platform is headquartered and work is performed

  o dispute resolution takes place in jurisdiction where platform is headquartered but not all work is performed

  o dispute resolution takes place in other jurisdiction where platform has office (different from where work is necessarily performed and platform is located with office)

  o dispute resolution takes place in other EU Member State (different from where work is performed and platform is located with office)

  o dispute resolution takes place in jurisdiction outside EU (not jurisdiction where platform is headquartered

- Social protection (list of types of insurance offered by platform)

- Working time (people working through platform locked into agreed working time, or free to choose or change mind about working time)

- Earnings (no stipulation, platform determines minimum rate ([7]), platform requires pay at least local minimum wage, platform requires pay at least local minimum wage plus costs)

- Exclusivity (exclusivity provision, no exclusivity provision)

2.1.3.3. Social dimension

The social dimension covers the following indicators:

- Representation (no stipulation, platform includes freedom of association and worker voice mechanism, platform recognises that worker body can undertake collective representation and bargaining)

- Adverse behaviour and social treatment (no stipulation, some measure to prevent discrimination and promote equity, evidence of preventing discrimination and promoting equity)

---

[6] Applies to disputes over e.g. dismissal/deactivation of account, improper or non-payment, performance evaluation (ratings/reviews) by platform or clients.

[7] Upwork, for example, does not support contract rates under USD 3.00 per hour (including service fee) for hourly contracts. See Uber 'Minimum Hourly Rates' (n.d.).

2.2. Desk research

The desk research covered academic and grey literature related to platform work at national and regional level with regard to policy, legislation and regulation, and collective agreements, media and public debates on platform work and other publicly available data on related topics. Other literature sources include legal documents, publications by policy makers and social partners, databases, articles published on traditional and social media channels, opinion pieces, and platform T&Cs and communications.

2.3. Semi-structured interviews

Semi-structured interviews were conducted to gather first-hand information to complement the literature review and dataset of platforms. In total, 11 interviews were conducted with digital economy experts, legal experts, policy makers, and platform and platform worker representatives.

The interviews were semi-structured and focused on understanding the current platform landscape, the way they have developed over the past five years, and the relationship between platform business models and working conditions.

2.4. Validation workshop

The main results and findings were discussed with eight (academic) experts during a validation workshop held virtually on 25 February 2021. The validation workshop shared the main findings on landscape and development, business models and working conditions, and invited participants to provide feedback and critique. The main insights gathered from the workshop have been integrated into this report.

2.5. Main limitations

Data sources have significant conceptual and methodological differences, which introduces uncertainty and sometimes requires judgement calls based on qualitative assessment. To avoid potential differences in assessment due to these judgement calls on important indicators, the latter were assessed by two team members. Moreover, differences between DLPs with the same intermediated services were assessed and harmonised when necessary.

DLPs often do not present themselves as such, and there are limited official registers for DLPs. This complicates the identification of DLPs, especially when striving for comprehensiveness. This study has tried to mitigate this limitation through the use of existing lists, checks on the larger DLP owners and web searches. The study has aimed to ensure that the largest DLPs are covered, but smaller DLPs may be missing. The number of DLPs presented in this study might thus be understated.

Similarly, DLPs and company registers rarely provide the information necessary for the size indicators considered in this study (total size of the DLP economy, platform revenues, platform worker earnings and fourth-party revenues). This has been addressed by using a model to estimate the size indicators for the DLPs. The model has been tailored for a significant number of larger DLPs, but the figures potentially deviate from the unobserved values.

In general, there is more information publicly available about platforms that are still active than those that have been deactivated (ceased activities, merged with another platform, etc.). This might lead to an underestimation of the number of platforms that have ceased their activities. This issue has been addressed by also including older datasets, which include DLPs active a few years ago.

Information on working conditions relies largely on the public availability of T&Cs and work agreements, which are not always available or do not provide all the information necessary to assess working conditions. As such, secondary sources were used to supplement the DLPs' official information on working conditions.

Lastly, many DLPs provide limited or no information on the earnings of people working through the platform or their turnover. When information is available, it is often inflated or has not been validated (Fabo et al., 2017). This study has estimated the size of platforms using a combination of their online activity and similarity to other platforms for which validated information was available.

3. Landscape and development

This chapter provides an overview of the DLPs active in the EU27 ([8]), as well as how the platform work landscape has developed over the past five years. In total, 590 unique DLPs were identified, of which 516 were active in March 2021.

3.1. Trends in the number of DLPs

The number of DLPs active in the EU27 has increased by about 12% in the past five years, from about 463 in 2016 to 520 in 2020 (see Figure 3a). The majority of these DLPs act as intermediaries for freelance, delivery or home services tasks. The distribution across types of DLPs has been relatively stable across the five-year period.

The increase in active DLPs appears to have declined in the past few years (Figure 4). In total, about a third of the DLPs were launched, while about one-eighth were deactivated in the period between 2016 and 2020. Most of the new DLPs were launched in 2016 and 2017, while in more recent years the new launches appear to have decreased to levels slightly higher than the number of deactivations. The deactivations are mostly due to mergers or acquisitions by other DLPs, or to having too little activity to remain a viable business. This provides some evidence that the DLP sector is beginning to mature.

Figure 3 DLPs active in the EU27 by year and type of DLP

a) Number of DLPs
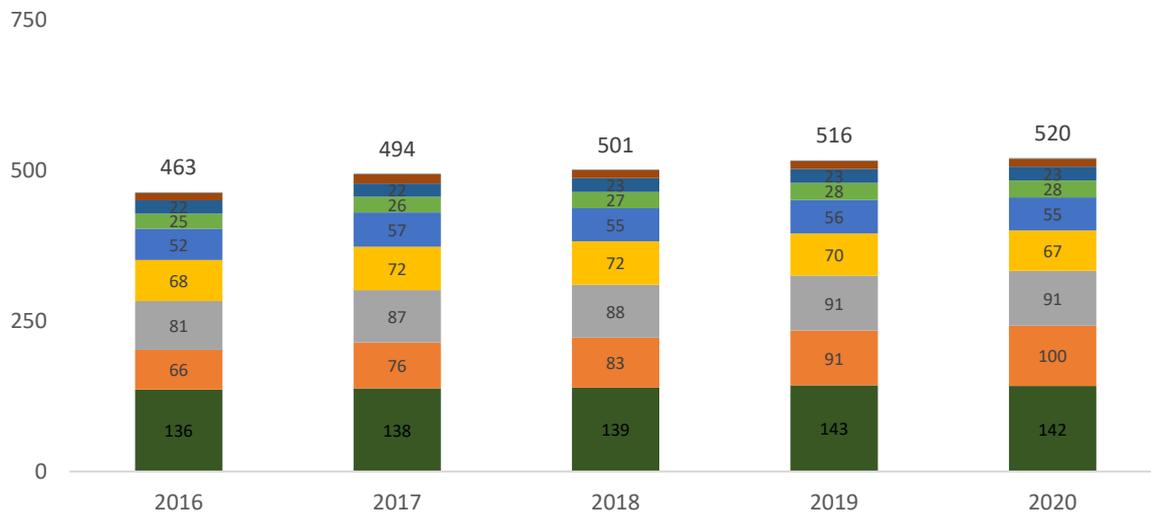
---

b) Size of DLP economy (EUR billion)
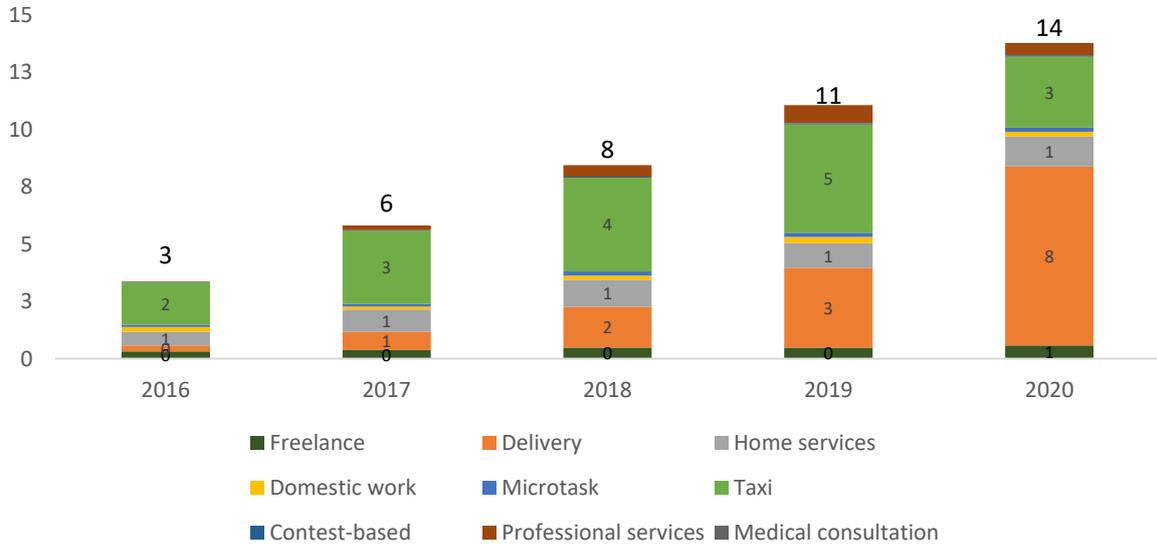
Note: The figure above presents the number of DLPs active in the EU27 in the period between 2016 and 2020 (N=590) across types of DLPs (ILO typology).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

In turn, the total size of the DLP economy in the EU27 has increased almost fivefold in the past five years, from an estimated EUR 3 billion in 2016 to EUR 14 billion in 2020 (see Figure 3b). This reflects the consolidated revenues of the parties involved, including the platforms, people working through the platforms and fourth parties. An estimated three-quarters of the DLP economy originates from taxi and delivery platforms.

Figure 4 Incorporation and deactivation of DLPs in the EU27 by year
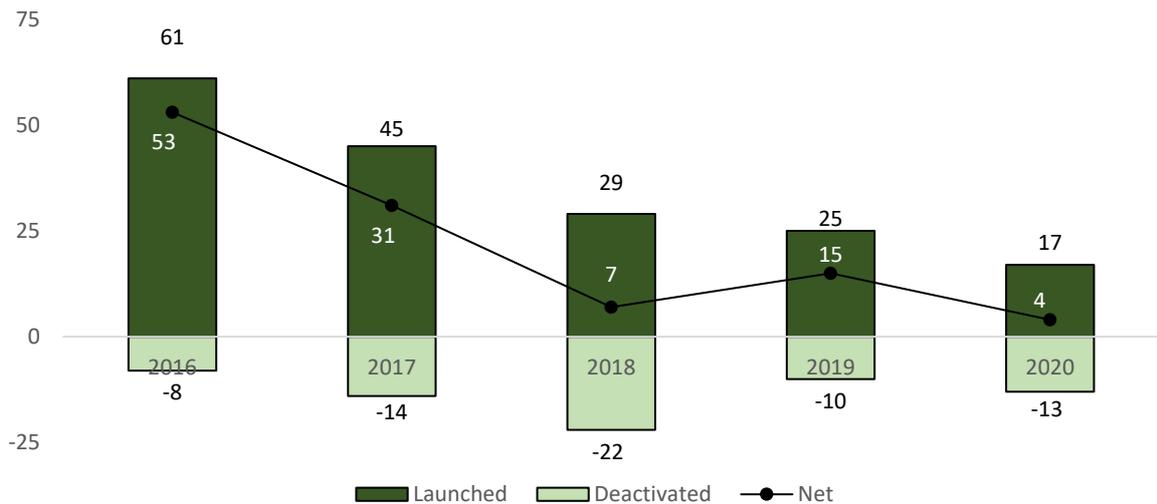
Note: The figure above shows the number of new DLPs launched, number of DLPs deactivated and net impact on the number of DLPs active in the EU27 (N=590).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

The impact of COVID-19 on the number of new DLPs launched and deactivations seems limited. While some on-location DLPs ceased their activities permanently, most others were reactivated after temporary closure. Moreover, other DLPs decided to postpone or cancel

expanding their services to other countries. For example, Chabber, a DLP originating in Denmark, seems to have halted its plans to expand abroad ([9]).

In turn, COVID-19 has had a significant impact on the activities of certain types of platforms. More specifically, until 2019 the DLP economy was dominated by taxi platforms, but due to COVID-19 this has shifted to delivery platforms. Indeed, food delivery platforms more than doubled in size during 2020, whereas taxi platforms lost about a third of their activities. Likewise for platforms oriented towards the leisure and retail sectors, though these are significantly smaller in size. The drop in activity or reduction in growth seems, in general, to have been temporary for other types of platforms (i.e. a short-term drop in activity around the time that the first lockdown measures were implemented).

COVID-19 also changed the way that many on-location DLPs operate. For example, several DLPs specialising in tutoring, teaching ([10]) or the provision of guided tours ([11]) previously offered their services exclusively in person. Due to COVID-19, however, many began to offer online services as a supplement to or instead of on-location services. It is also clear that the vast majority of on-location DLPs needed to alter how they do business, encouraging or requiring safety measures (e.g. face masks, hand sanitiser and social distancing), though the actual changes varied depending on the type of service offered and the applicable COVID-19 measures.

3.1. Trends in earnings of people working through platforms

The estimated total earnings of all people working through platforms has increased significantly in the past few years. Few DLPs provide an indication of the total earnings of people working through their platform. These have therefore been estimated. The total earnings of people working through platforms steadily increased from an estimated EUR 2.6 billion in 2016 to EUR 6.8 billion in 2019, before dropping to an estimated EUR 6.3 billion in 2020, primarily due to the restrictions associated with COVID-19. The primary reason is that many on-location services were significantly restricted or not possible to provide. COVID-19 had an especially large impact on the size of DLPs intermediating taxi services. The growth in the earnings of people providing food delivery was not enough to offset the drop-in personal transport services.

---

[9] National business registries indicate that Chabber registered in Norway in March 2020, and the Netherlands in late 2019, but Chabber's website indicates it is not active in either country at present.

[10] See for example Student Academy (https://studentacademy.be/mesures-covid-19/).

[11] See for example FreeTour (www.freetour.com).

Figure 5 Earnings of people working through platforms (EUR billion)
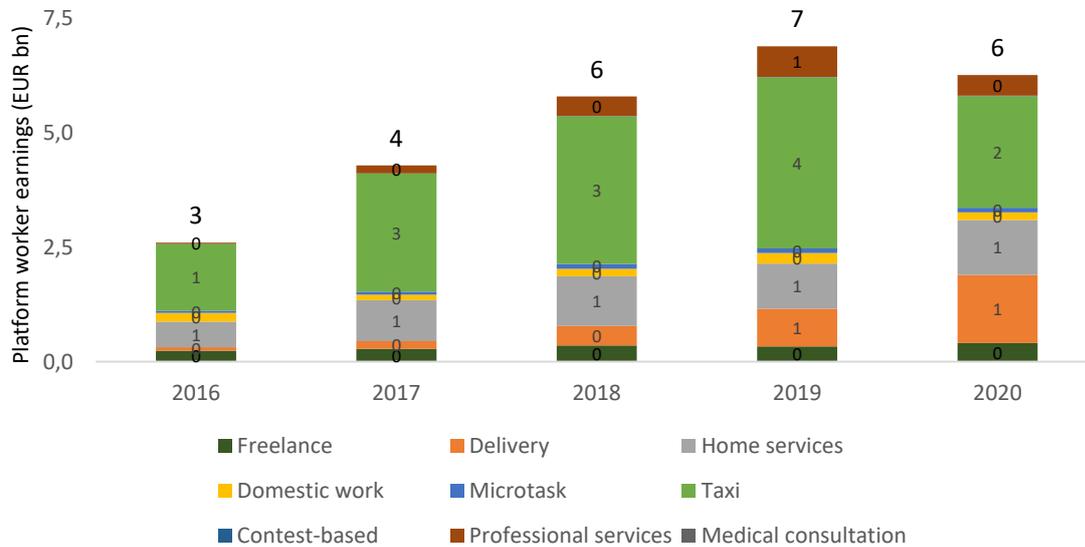
Source: Authors' estimations based on dataset of DLPs active in the EU27.

Looking at the largest DLPs in terms of total earnings of people working through platforms, the top five are estimated to be responsible for about half of the total in the EU27. The top 25 of the largest DLPs measured by earnings of people working through platforms combined account for about four-fifths of the total earnings of people working through platforms. Most of the largest DLPs by earnings of people working through platforms are either personal transport or delivery services. Uber and UberEats account for the highest total earnings – approximately EUR 2.4 billion in 2020. These numbers have been affected by the COVID-19 pandemic. More specifically, the numbers for Uber were significantly lower than in 2019 and for Uber Eats significantly higher.

Figure 6 Top 5 DLPs by total earnings of people working through platforms in the EU27

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Regarding employment status, the vast majority of DLPs presume that people working through their platform are self-employed ([12]). The designation 'self-employed' refers to any arrangement where people working through platforms are not employed by any party, whereas 'work agreement' refers to any arrangement where the client, DLP or a 'fourth party' employs people working through platforms. For example, some DLPs directly employ the people working through their platforms, while others function as temporary work agencies, formally employing the people working through their platforms while finding them temporary assignments with client companies. Other DLPs require employment agreements between their clients and the people working through their platforms, especially for domestic services in a few countries such as Ireland and Spain.

Overall, the large majority of DLPs active in the EU27 were found to use self-employment agreements (92% of DLPs and 93% in terms of earnings), whereas the remaining DLPs (8% and 7% respectively) used a work agreement where some party employed the people working through their platforms. This corroborates other evidence ([13]) that people working through platforms are most commonly providing their services as independent contractors, solo self-employed or similar legal classifications.

3.2. Origin of DLPs

The large majority of the DLPs active in the EU27 are of European origin. In March 2021, there were 516 DLPs active in the EU27, of which 77% originated in the EU (see Figure 7). The share of EU27 DLPs becomes smaller when the activity on the platform is considered. In terms of earnings of the people working through the platform, EU27 DLPs account for about half of the earnings. The other half have their origin in the United States.

Figure 7 Origin of DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs
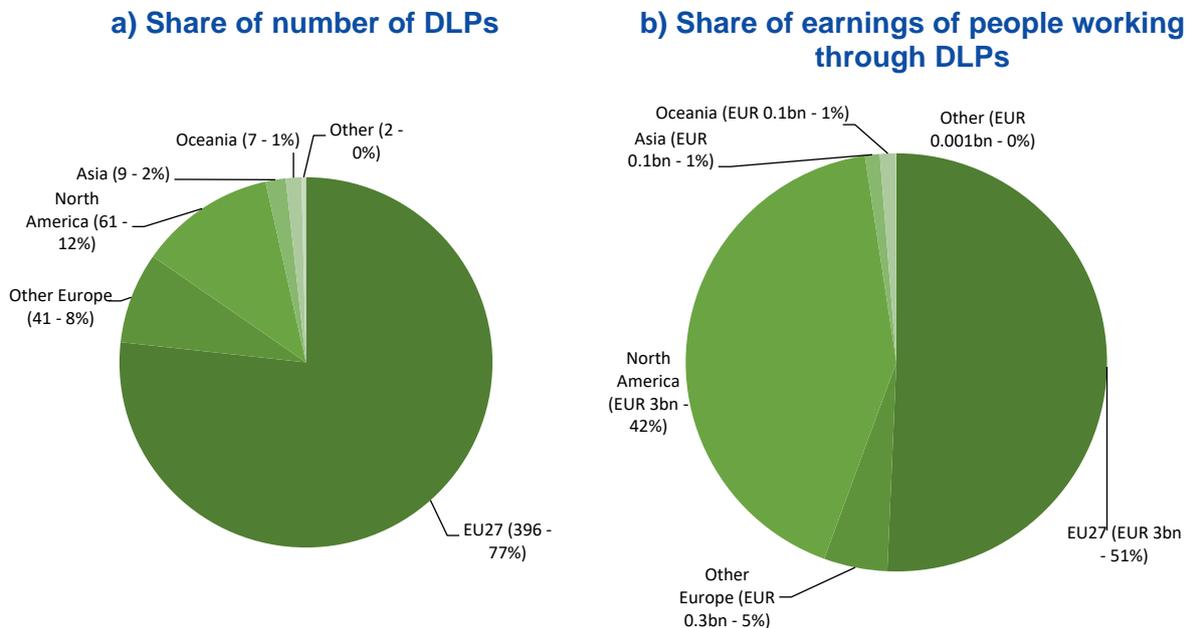
Note: The number in parentheses is the number of DLPs per region of origin or earnings of people working through DLPs (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

---

[12] For the sake of the landscaping exercise and estimations on revenues and earnings of people working through DLPs, each of the 516 DLPs active in the EU27 in March 2021 were labelled as either 'self-employed' or 'work agreement'. This determination was based on information found on each DLP's website between January and March 2021. For DLPs where both arrangements are possible, the most common was used.

[13] Many previous studies have reported this finding (e.g. Berg et al., 2018; Eurofound, 2018; Brancati, Pesole and Fernandez Macias, 2019; Kilhoffer et al., 2020).

The EU27 country from which the most active DLPs originate is France with 89 DLPs, followed by Belgium (49), Spain (44), Germany (41), the Netherlands (38) and Italy (26) (see Figure 8). The larger number of DLPs in these countries might partially be explained by the methodology, which aimed to ensure good coverage of DLPs across the entire EU, whilst more evidence was available for larger countries. Moreover, Belgium's large number is largely due to its official register of recognised platforms in the 'sharing economy'. In the other EU27 countries, up to 14 home-grown DLPs were identified. In Latvia and Bulgaria, no home-grown active DLPs were identified.

If the size of the DLPs is based on the share of earnings of people working through DLPs in the EU27, the order changes significantly. German-originated platforms are largest with about EUR 1 billion in earnings for people working through DLPs in the EU27, followed by France (EUR 0.7 billion), the Netherlands (EUR 0.4 billion), Spain (EUR 0.4 billion) and Estonia (EUR 0.2 billion). There are several reasons for the differences between the number and size of DLPs. In general, the countries with larger domestic markets are larger in size (e.g. DE, ES and FR). But there are also countries with smaller domestic markets that have large platforms active in several EU countries (e.g. NL and EE). In turn, there are also countries with sizeable domestic markets that are smaller in size, as the local DLP market is dominated by foreign platforms (e.g. IT and PL).

Figure 8 EU-originated DLPs active in the EU27 by country of origin

a) Number of DLPs
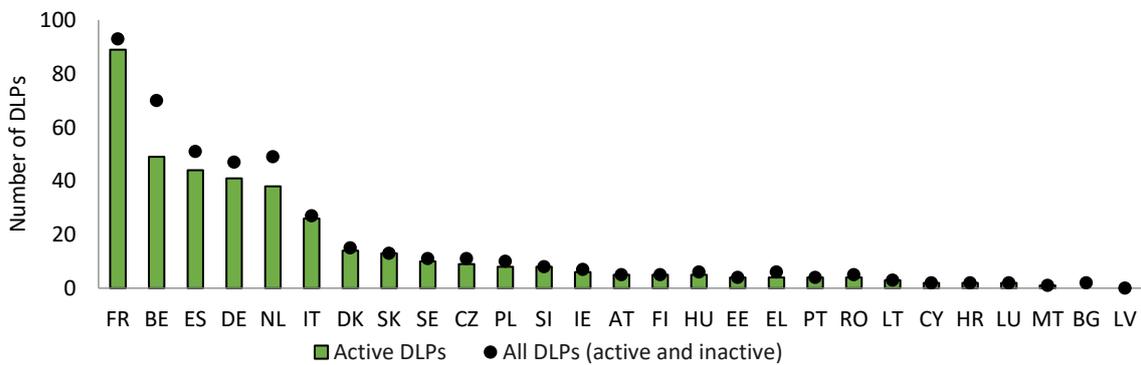
b) Earnings of people working through DLPs
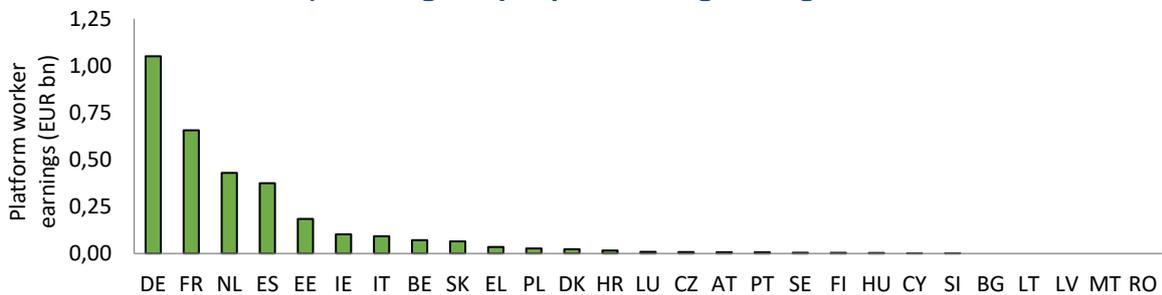
Note: The figure above shows the active DLPs as at March 2021, as well as the DLPs that were active in the period between 2015 and 2020, by origin in the EU27 (N=459).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

About a quarter of the active DLPs in the EU27 have their origin outside the EU (see Figure 9). Most of these DLPs have their origin in the US (58 out of 120 DLPs, or 48% of the DLPs with their origin outside the EU27) or the United Kingdom (35), but there are also several DLPs from Australia (7), Switzerland (4), Canada (2), India (2), Russia (2) and the United Arab Emirates (2). In terms of earnings of people working through DLPs, the platforms from the US

(EUR 2.6 billion) and the UK (EUR 0.3 billion) are the largest, accounting for about 95% of earnings of people working through DLPs founded outside the EU.

Figure 9 Non-EU originated DLPs active in the EU27

a) Number of DLPs
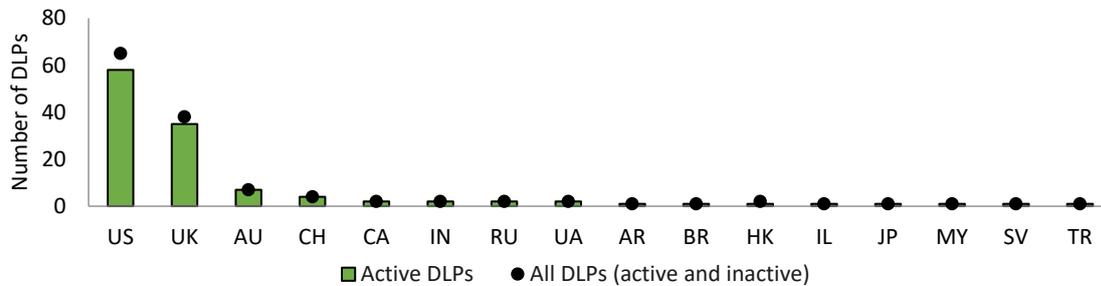
b) Earnings of people working through DLPs
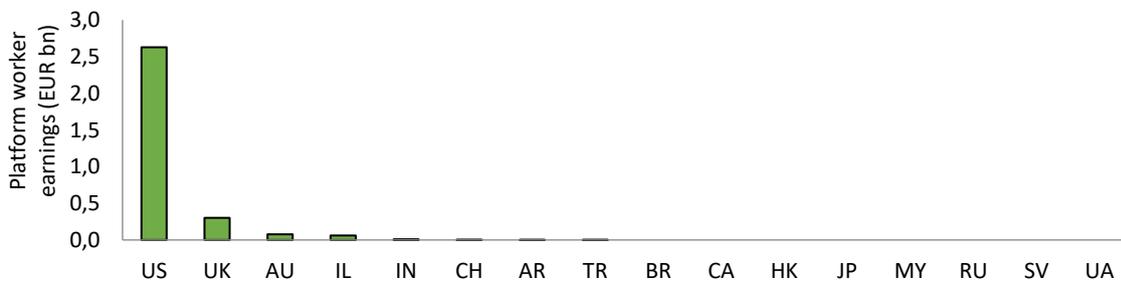
Note: The figure above shows active DLPs in March 2021, as well as DLPs that were active in the period between 2015 and 2020, by origin outside the EU27 (N=131).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

3.3. Presence of DLPs

DLPs are present and active in every EU Member State (see Figure 10). The country with the highest number of DLPs operating is France with 250 but, as noted above, this is primarily due to a large number of relatively small cooperatives providing food delivery services. Additionally, Belgium (213), Germany (201) and Spain (209) have more than 200 DLPs active in their countries ([14]). The smaller and newer EU Member States have relatively few DLPs operating, with Cyprus at the lowest (135 DLPs), and Bulgaria, Estonia, Finland, Greece, Croatia, Hungary, Lithuania, Luxembourg, Latvia, Malta and Slovenia, with fewer than 150 DLPs combined.

Online services are easier to provide anywhere, which is also reflected in the share of online DLPs acting as intermediaries for work in multiple countries. The majority of online DLPs operate globally (111 out of 187 DLPs, or 59%). Indeed, these services can be delivered cross border. The few online DLPs that are only active in one specific country tend to be found in France and Germany, with these being larger markets with a particular language.

In turn, on-location DLPs are mostly active in only one or a few countries. The majority of on-location DLPs are active in a single EU country (195 out of 278 DLPs, or 70% of on-location DLPs). Most of the other on-location DLPs are active in between two and five countries (45 DLPs, or 16%). The remaining DLPs are active in more than five EU27 countries. Only a small minority operate in all EU27 countries (8 DLPs, or 3%). Belgium, Germany, Spain, France, Italy, and the Netherlands have a relatively high share of active on-location DLPs.

---

[14] In operation means allowing people to work through the platforms from a given location.

The remaining approximate tenth of DLPs are active both online and on-location.

Figure 10 Share of DLPs active across countries (share of DLPs active in the EU27)
a) All active DLPs

b) Active online DLPs

c) Active on-location DLPs

d) Active DLPs both online and on-location

■ Active in country   ■ Not active in country

Note: The figure above shows the share of DLPs active in the EU27 across countries (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

3.4. Expansion of DLPs

DLPs that succeed in their originating country often attempt to **expand across borders**. This appears to happen in three main ways: i) targeting a particular language group, ii) targeting a particular area (i.e. countries adjacent to the originating country or larger markets), or iii) targeting all accessible markets.

DLPs that are global in scope are very likely to use English. However, many English language DLPs target all or a portion of the Anglosphere, namely the US, Canada, Ireland, UK, Australia and Singapore. Similarly, other DLPs target areas with a certain language group or *lingua franca*: Russia and its adjacent countries, where Russian or Slavic languages are spoken; Spanish-speaking countries (Spain and Latin America); French-speaking areas (France, Switzerland, Wallonia and parts of West Africa); German-speaking countries (Germany, Austria and Switzerland); and Dutch-speaking areas (the Netherlands and Flanders).

Regionally oriented expansion seems especially common for DLPs offering on-location services, where distance is a greater factor and expansion is likely requires work 'on the ground'. For example, some on-location DLPs originating in Slovakia, Czechia, Hungary or Poland operate exclusively in the Visegrad group, and a number of DLPs are exclusive to Nordic countries (Sweden, Norway, Denmark and Finland).

In turn, especially the larger listed DLPs aim to expand as quickly as possible to as many markets as possible to claim their market position.

For some on-location DLPs, especially those providing personal transport or delivery services, geographical expansion may create situations of cross-border work ([15]). One example in the dataset is Goopti, a DLP originating in Slovenia but registered in the Netherlands, which facilitates personal transport in Slovenia, Italy, Austria and Germany.

Similarly, many **DLPs operate in one area but are registered abroad**. The Netherlands, Switzerland and the UK are popular registry locations for DLPs, even if they primarily or exclusively enable platform work activities elsewhere. While the reasons for this are beyond the scope of this report, such decisions may derive from a preference for a particular taxation or regulatory regime. Additionally, many (especially online) DLPs are owned and operated from the founders' location, but rely on cheaper labour performed abroad.

The number of DLPs by country of activity are fairly similar to the number of DLPs by country of origin (see Figure 11). Indeed, France (92 DLPs, or 18% of active DLPs) is the most common country of registry for DLPs active in the EU27, followed by Belgium, Germany, Spain and the Netherlands with a fairly similar number of DLPs ranging from 44 to 49. A significant number of DLPs, however, do not have an office in the EU27. As previously noted, DLPs active in the EU27 but without registration there tend to be online and operate with little regard to the location of clients or people working through the platform.

In terms of earnings of people working through DLPs, the share is fairly similar to the distribution based on country of origin. There is one important difference though, with the Netherlands becoming the largest country in terms of earnings of people working through platforms, as it hosts the EU headquarters of Uber. Furthermore, the share in earnings of people working through platforms without EU headquarters is much lower than the share of earnings of those working through DLPs with their headquarters in the EU. About 8% of earnings of people working through DLPs in the EU are of those working through platforms without an office/headquarters in the EU, compared to about 20% of DLPs without an office/headquarters in the EU.

---

[15] See European Commission (2016).

Figure 11 EU27 headquarter location of DLPs active in the EU27
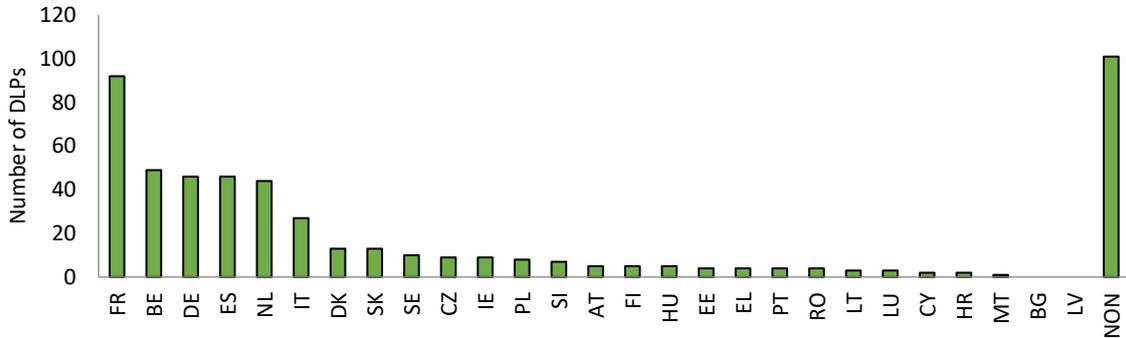
a) Number of DLPs

b) Earnings of people working through DLPs
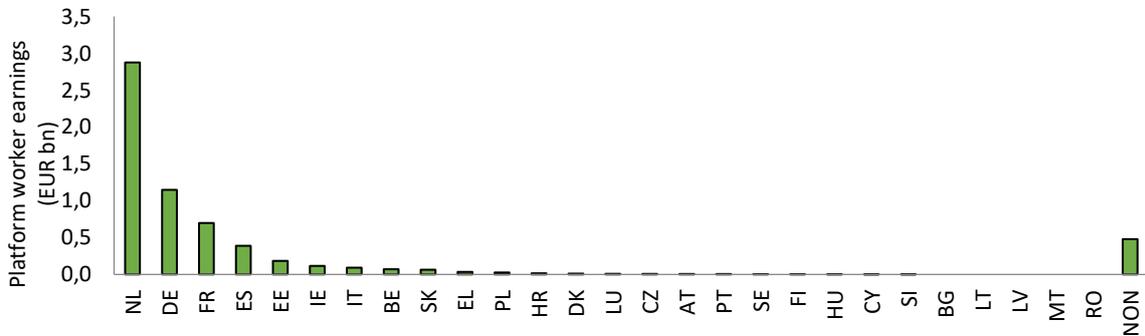
Note: The figure above shows the number of DLPs active in the EU by country of headquarter location (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

About 120 DLPs that are active in the EU have their origin outside the EU27 (see Figure 12). The large majority of these (about 101, or 84%) do not have an office in the EU. Those DLPs headquartered outside the EU but with an EU office are most often located in the Netherlands and Germany, which are the largest countries in terms of DLPs with 5 DLPs each. In addition, a few such DLPs have their offices in France (3), Spain (2), Ireland (2), Italy (1) and Luxembourg (1).

Many DLPs without an office in the EU27 are online DLPs with, on average, lower earnings for people working through them than on-location DLPs offering personal transportation and delivery services. On-location DLPs more often require some sort of local presence to operate, register with authorities, etc.

DLPs are almost twice as likely to originate in the EU when they operate on-location. This means that DLPs operating online and globally (55% originating in the EU) are more likely to originate outside the EU27 than on-location platforms (91% originating in the EU).

Figure 12 EU27 headquarter location of non-EU DLPs active in the EU27

a) Number of DLPs

b) Earnings of people working through DLPs
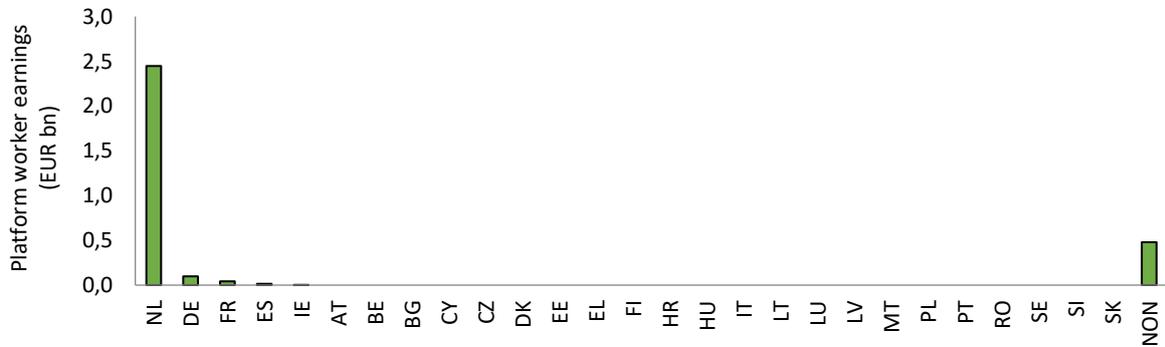
Note: The figure above shows the number of DLPs active in the EU27 in 2020 with their origin outside the EU by country of headquarters (N=120).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

4. Business models

The term 'business model' broadly refers to a company's plans or rationale for making profit. It typically includes elements like sources of revenue, target customer base and details of financing. This section discusses the various aspects of the business models of the DLPs active in the EU27, including their services, organisational structure, parties involved, revenues, costs and profit margins.

4.1. Structure

Generally, DLPs are for-profit companies structured as limited liability, though the precise legal form varies by country. Only the largest are publicly traded, while many are held by large international holding companies (e.g. Delivery Hero for food delivery DLPs).

A small minority of DLPs are structured as collectives or cooperatives, which are collectively owned and operated (Eurofound, 2017). In fact, among the DLPs active in the EU 31 cooperatives (6% of active DLPs) were identified. Cooperative DLPs seem to be more common in Spain, France and Belgium. They almost exclusively provide food delivery through a joint platform established by the CoopCycle association. Cooperatives are estimated to generate far below 1% of earnings of people working through platforms.

These structures challenge the traditional profit-maximising structure of DLPs (Foramitti et al., 2020), as workers run the platform themselves (Schmidt, 2017). A number of cooperative DLPs were identified, but these tended to be very small and local, often limited to a single city. Often these cooperatives do not publicise clear information on how they operate.

In a few cases, a DLP maintains a website intended for clients (i.e. offering artificial intelligence (AI) services and appearing high tech, without mention of people working through the platform). Simultaneously, the DLP has a separate website of a different name, for the purpose of recruiting people working through the platform and intermediating their work. An example is Templafy, a Danish DLP offering document services, and the DLP Iwriter, which it acquired in 2019 (Rani et al., 2021).

Finally, **some DLPs are registered as temporary work agencies**. In practice, it can be very difficult to determine whether these are better classified simply as temporary work agencies using a digital medium, or as a DLP by this report's understanding. For example, multiple DLPs benefiting from Belgium's official platform assignment ([16]) are also temporary work agencies.

4.2. Type of service

DLPs cover a broad range of services according to the classifications for DLP services and platforms introduced by COLLEEM and ILO, whereas their coverage in terms of service is narrower when all economic sectors are expressed in NACE.

4.2.1. COLLEEM categorisation

The services intermediated by DLPs are quite well captured by the COLLEEM typology that this report builds on, which identifies 12 categories of services. All categories of services from this typology were found to be operating in the EU (see Figure 13).

Looking at the various types of services, most of the DLPs act as intermediaries for on-location services such as delivery services, domestic work and other on-location services. Each of

---

[16]   See   https://financien.belgium.be/sites/default/files/downloads/127-deeleconomie-lijst-erkende-platformen-20210112.pdf. People working through recognised platforms are entitled to a favorable tax rate, but not all registered platforms met this report's criteria for DLPs.

these services are intermediated by well over 100 active DLPs (20%). In fact, the only on-location service intermediated by fewer DLPs are on-location personal transportation services (55, or 11% of active DLPs).

Online services following the COLLEEM typology are each intermediated by between 49 and 97 DLPs. The most frequently intermediated services are online writing and translation (97, or 19% of active DLPs) as well as creative and multimedia work (92, or 18% of active DLPs). Online clerical and data-entry tasks, on the other hand, are intermediated by fewer DLPs (49, or 9% of active DLPs).

In terms of the earnings of people working through DLPs, on-location personal transportation (EUR 2.7 billion, or 42% of earnings of people working through DLPs) and delivery services represent the largest share (EUR 2.2 billion, or 36% of earnings of people working through DLPs). Active DLPs offering other on-location services represent about one-fifth of earnings of people working through DLPs. Each of the online services is responsible for about one-twentieth of earnings. It is important to note that the DLPs intermediating more than one service are considered with all their earnings in two or more categories.

Figure 13 Services intermediated following COLLEEM categorisation by DLPs active in the EU27
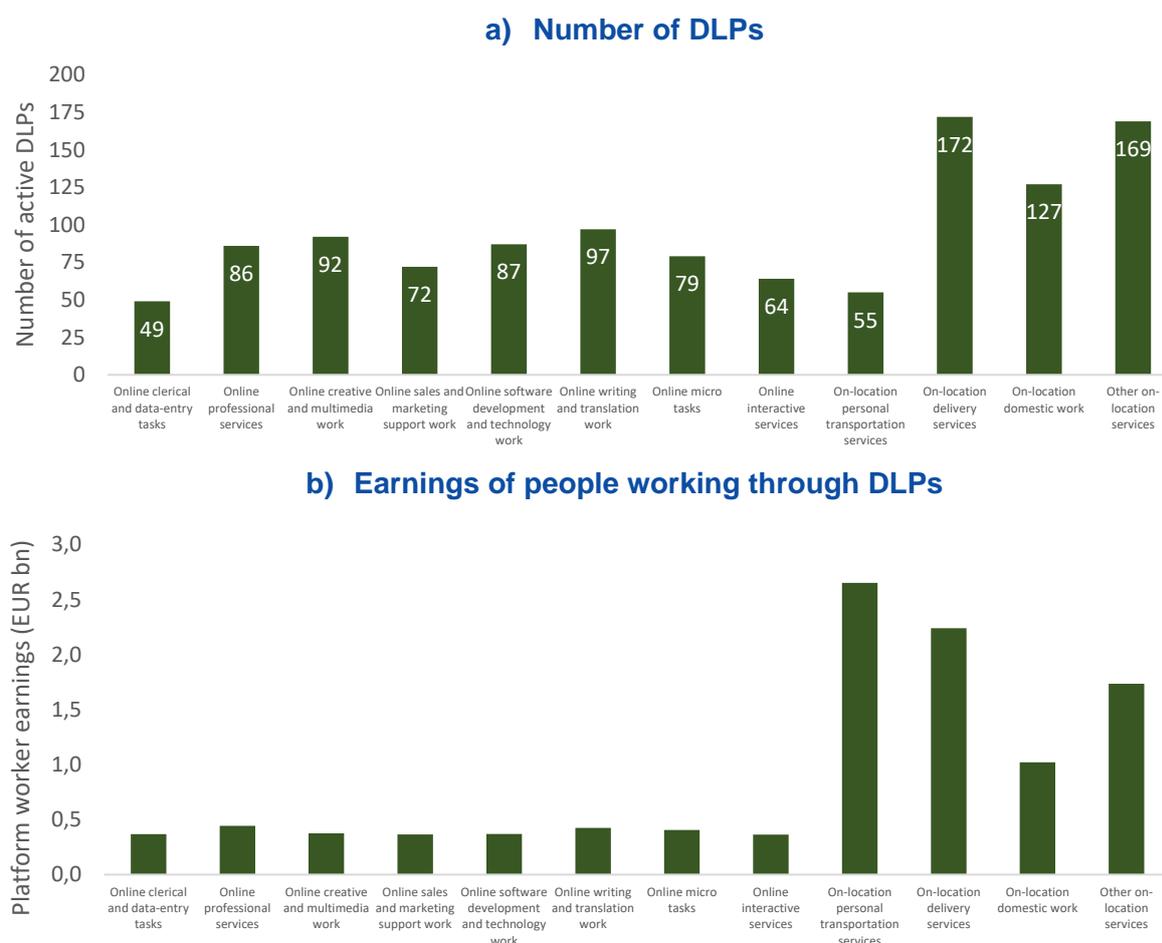
a) Number of DLPs

b) Earnings of people working through DLPs

Note: The figure above shows the number of DLPs active in the EU27 in 2020 intermediating services following the COLLEEM categorisation (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

Going by the COLLEEM typology, the majority of DLPs focus on a single type of service (328, or 64% of active DLPs – see Figure 14). The remaining approximate third of DLPs offer multiple types of services. Some essentially act as online marketplaces, with few rules and where

virtually any services can be advertised and purchased. Examples include Oferia in Poland, Microjob.sk in Slovakia, and Wetasker in Luxembourg.

Figure 14 Number of COLLEEM categories intermediated by DLPs active in the EU27
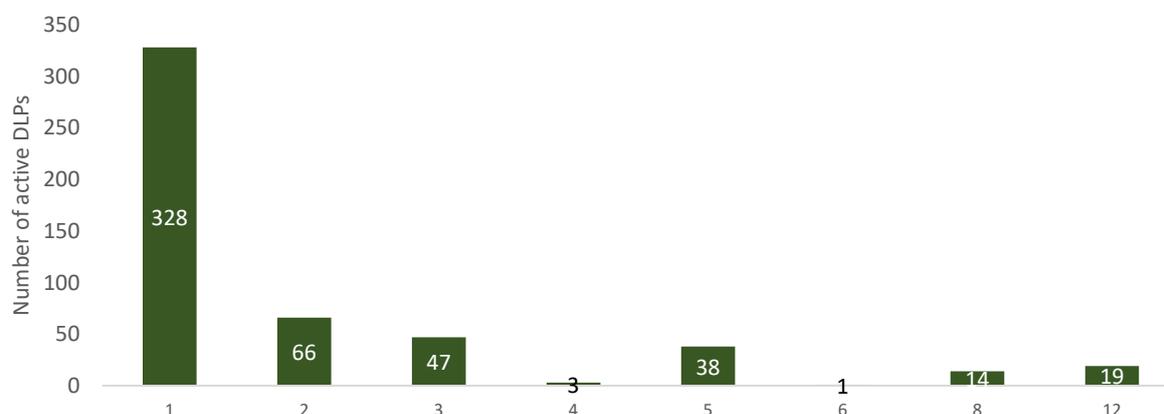
Note: The figure above shows the number of COLLEEM categories intermediated by DLPs active in the EU27 (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

4.2.1. ILO typology

Alternatively, each of the DLPs active in the EU27 has been classified in the main categories included in the ILO typology. This typology is similar to the COLLEEM categorisation, but has fewer online categories. The results according to the ILO typology show some clear differences between the distribution based on the number of DLPs and the earnings of people working through the platforms (see Figure 15).

On-location services represent the majority of DLPs active in the EU27. Services such as delivery (99, or 19% of active DLPs), home services (90, or 17% of active DLPs) and domestic work (67, or 13% of active DLPs) are collectively responsible for about half of these DLPs. Other on-location services, including taxi services (28, or 5% of active DLPs) and professional services (13, or 3% of active DLPs) are intermediated by about 8% of active DLPs.

In terms of earnings of people working through DLPs, on-location DLPs account for more than 90%. DLPs intermediating taxi services (EUR 2.4 billion, or 39% of earnings) and delivery services (EUR 1.5 billion, or 24% of earnings) account collectively for almost two-thirds of the earnings of people working through DLPs. Home services (EUR 1.2 billion, or 19% of earnings), professional services (EUR 0.5 billion, or 7% of earnings) and domestic work (EUR 0.2 billion, or 3% of earnings) account collectively for most of the remaining third of earnings of people working through DLPs.

However, most of the DLPs active in the EU27 act as intermediaries for freelance services (140, or 27% of active DLPs). Among the remaining types of services, microtasks (55, or 11% of active DLPs) are the most prominent, with contest-based intermediated tasks (23, or 4% of active DLPs) accounting for most of the remaining active DLPs. One active DLP providing medical consultations was identified (less than 1% of active DLPs).

In terms of earnings of people working through DLPs, online intermediated services account for less than 10%. These are roughly equally split between freelance (EUR 0.4 billion, or 6% of earnings) and microtasks (EUR 0.1 billion, or 2% of earnings).

Figure 15 Services intermediated following ILO typology by DLPs active in the EU27
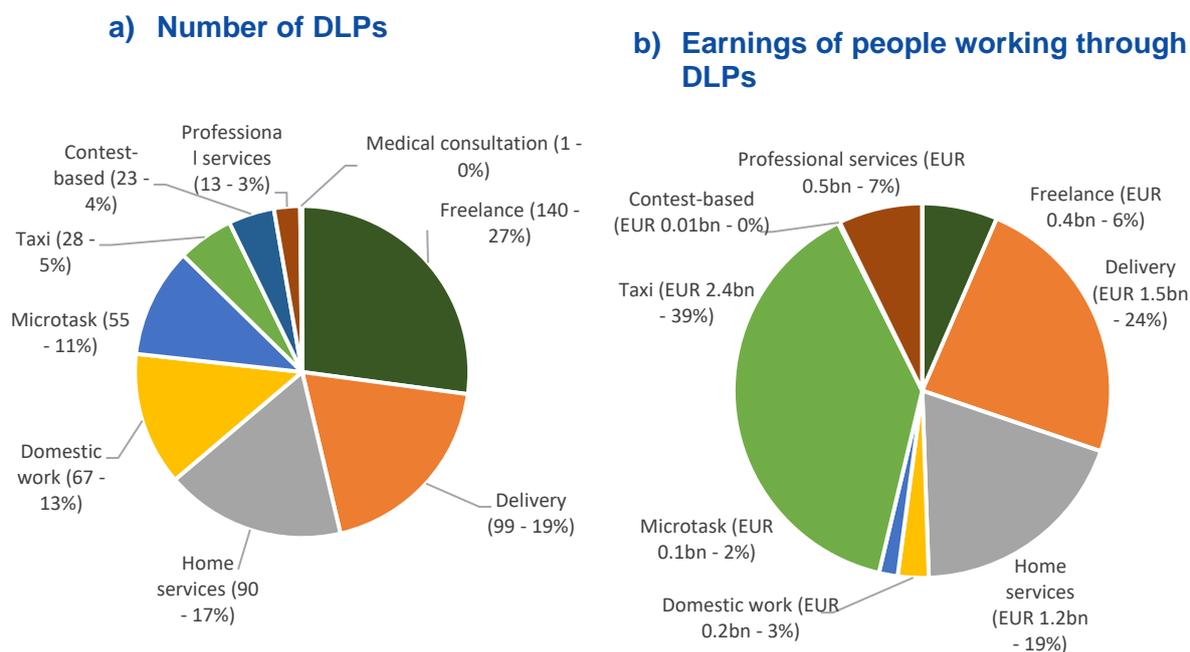
a) **Number of DLPs**

b) **Earnings of people working through DLPs**

Note: The figure above shows the number of DLPs active in the EU27 in 2020 intermediating services following the ILO categorisation (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

4.2.2. NACE sectoral classification

The services intermediated by DLPs can also be classified in line with the more general sectoral NACE classification traditionally used for statistics on economic activity (see Figure 16). Classification according to this system is, however, not always straightforward. In particular, services like retail intelligence, surveys, pet-sitting, and bug-finding are loose fits for the existing standard classification.

The results indicate that DLPs act as intermediaries for services across many sectors, but not all. For example, no DLPs were found in the agricultural, real estate, public administration or extraterritorial sectors.

Looking at those sectors in which many DLPs are active, most DLPs intermediate services in transportation and storage (200, or 39% of active DLPs) and administration and support (167, or 32% of active DLPs). Another 13 sectors are covered by a substantial number of DLPs. The other sectors are covered by at least one DLP.

In terms of earnings of people working through DLPs, the transportation and storage sector stands out (EUR 4.7 billion, or 75% of earnings). The other sectors are all significantly smaller in terms of earnings of people working through DLPs. The comparison is complicated, however, as many of the DLPs intermediating services are classified in more than one sector.

Certain DLPs, especially those focused on B2B services, bundle related services. For example, a number of DLPs do not exclusively offer retail intelligence, but also provide surveys for businesses that want to improve their retail performance. Additionally, many DLPs offering food delivery or other transportation of goods also offer logistics services to distributors.

Figure 16 Service intermediated according to NACE categorisation by DLPs active in the EU27
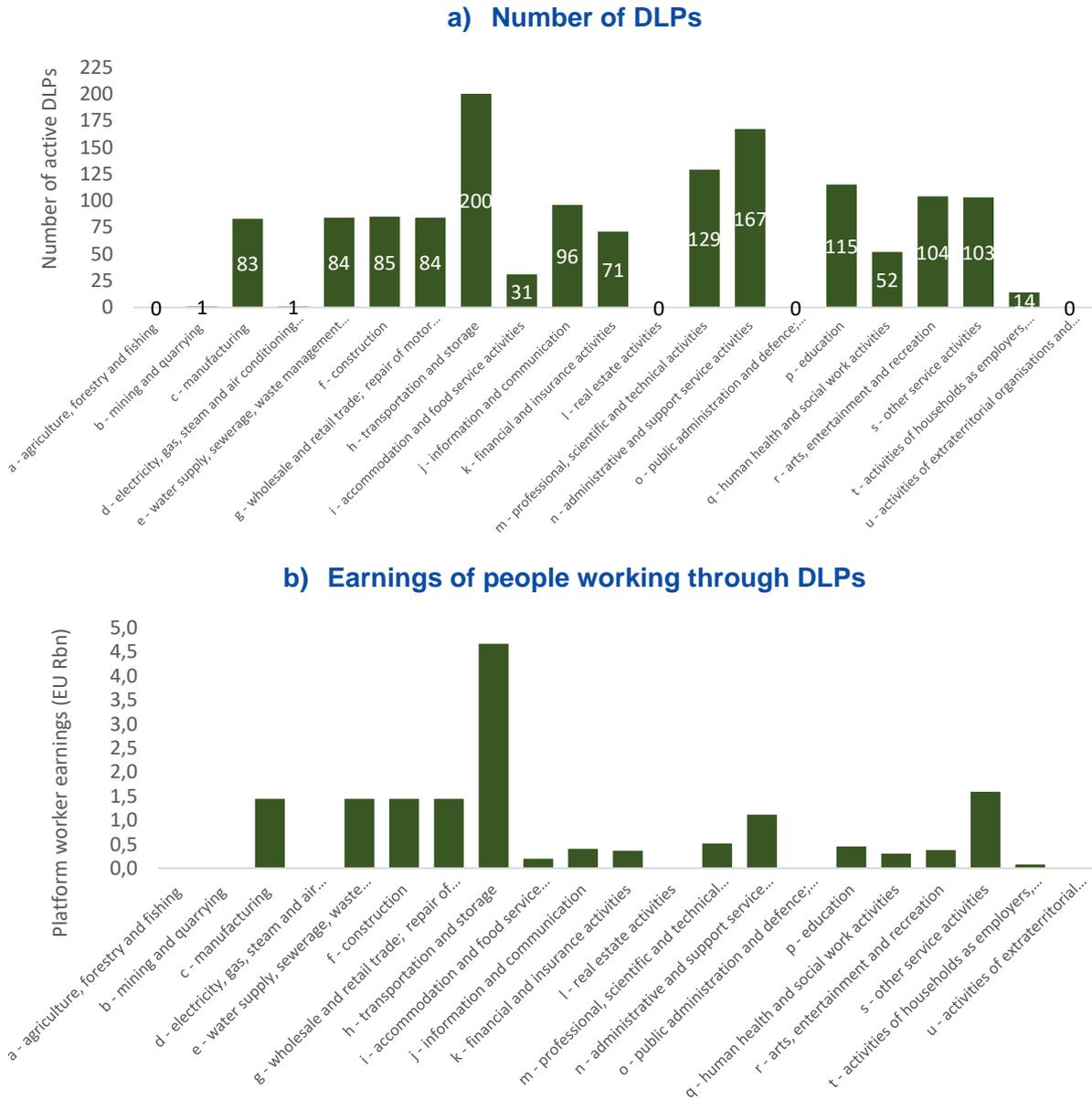
a) Number of DLPs

b) Earnings of people working through DLPs

Note: The figure above shows the number of DLPs active in the EU27 in 2020 intermediating services following the NACE categorisation (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Similar to the COLLEEM categorisation, the services intermediated by the majority of DLPs active in the EU27 can be classified in a single NACE level 1 code (327, or 63% of active DLPs – see Figure 17). The remaining approximate third of active DLPs offer services that belong to two or more NACE codes. More than a quarter of these act as intermediaries for services covering five or more sectors (141, or 27% of active DLPs). For example, multiple categories were applicable to 'handyman' services (i.e. NACE categories D, E, and F).

Figure 17 Number of NACE categories intermediated by DLPs active in the EU27
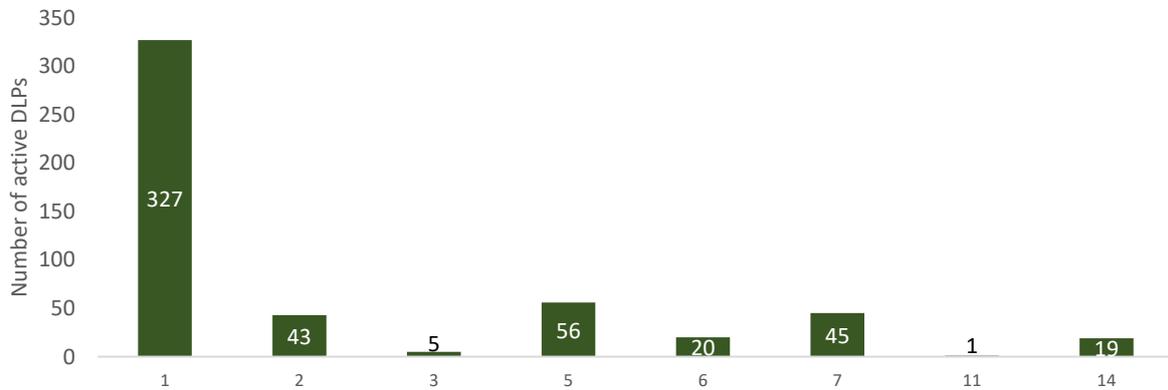
Note: The figure above shows the number of NACE categories intermediated by DLPs active in the EU27 in 2020 (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

4.3. Parties involved in platform work

The business models of DLPs have in common that they intermediate demand between two or more customers, also known as two-sided or multi-sided markets (Drahokoupil, 2021). They tend to position themselves as technology companies and digital marketplaces that connect people, rather than as companies that employ individuals (Prassl, 2018; Katta et al., 2020). In this line, people working through platforms are often classified as independent contractors, rather than employees. This section discusses the role of each of the parties, including the DLPs, people working through the platforms, clients and other involved parties.

4.3.1. Digital labour platforms

In order for a DLP to generate an effective and profitable platform, it is important that the platform can effectively and efficiently bring the parties together, without them being able to circumvent the intermediation process and avoid having to pay the platform. The selection of parties to be involved in a particular transaction forms an important element in the intermediation.

The party responsible for selecting tasks varies and is not always clear cut. In most cases either the worker, client or platform bears responsibility, but in other cases multiple parties are involved (see Figure 18). For most DLPs, the platform itself is responsible for allocating the task. This is partially due to the relatively large number of delivery and personal transportation DLPs, which almost always rely on algorithmic matching of clients and people working through platforms. Homework and professional services are more often based on a combination of the platform and the client.

Figure 18 Main actor(s) responsible for the allocation of tasks intermediated by DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs
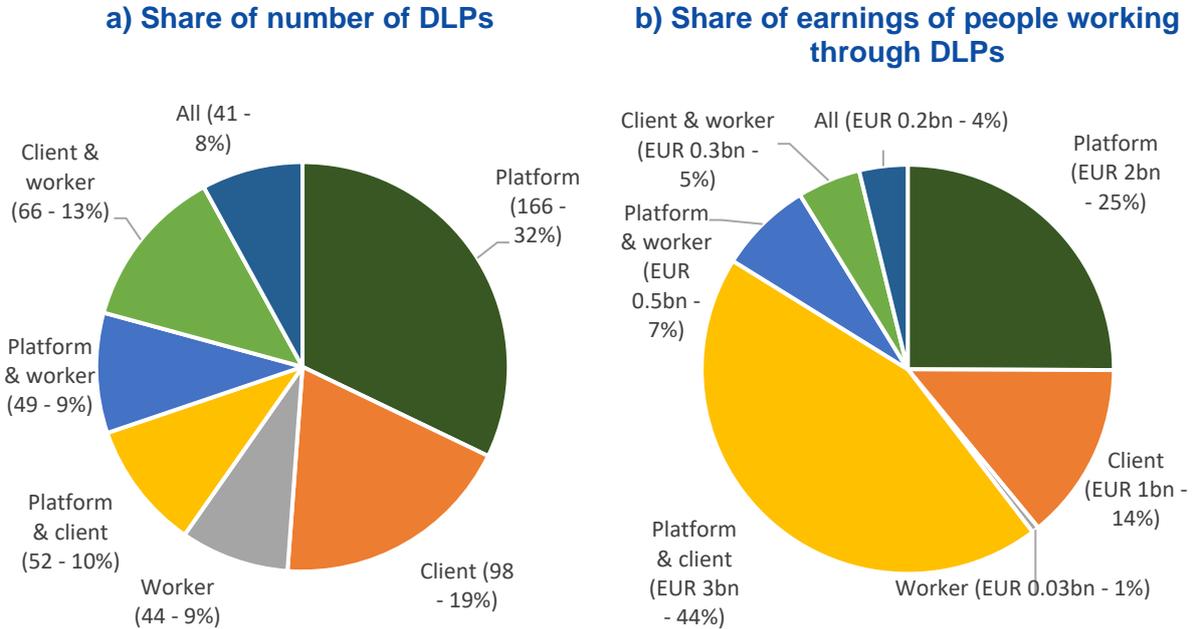
Note: The figure above shows the share of DLPs active in the EU27 in 2020 by the main actor(s) (clients, platforms and people performing services through platforms) responsible for the allocation of tasks (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

The Eurofound typology distinguishes between two types of matching – offer and contest. This essentially means that one of the parties makes an offer, which is accepted or rejected. In a contest, a group of people all perform a task, and a client selects one or more winners to be paid. The large majority of platforms match clients to workers based on offer (see Figure 19). In fact, platforms that intermediate using contests or a combination of contests and offers form only a small minority of DLPs, and an even smaller share in terms of earnings. The contest model is particularly used for online tasks where the task is to design something (e.g. a website, logo or packaging). DLPs with both offers and contests typically offer 'freelance' services such as programming or logo design.

Figure 19 Form of matching applied by DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs
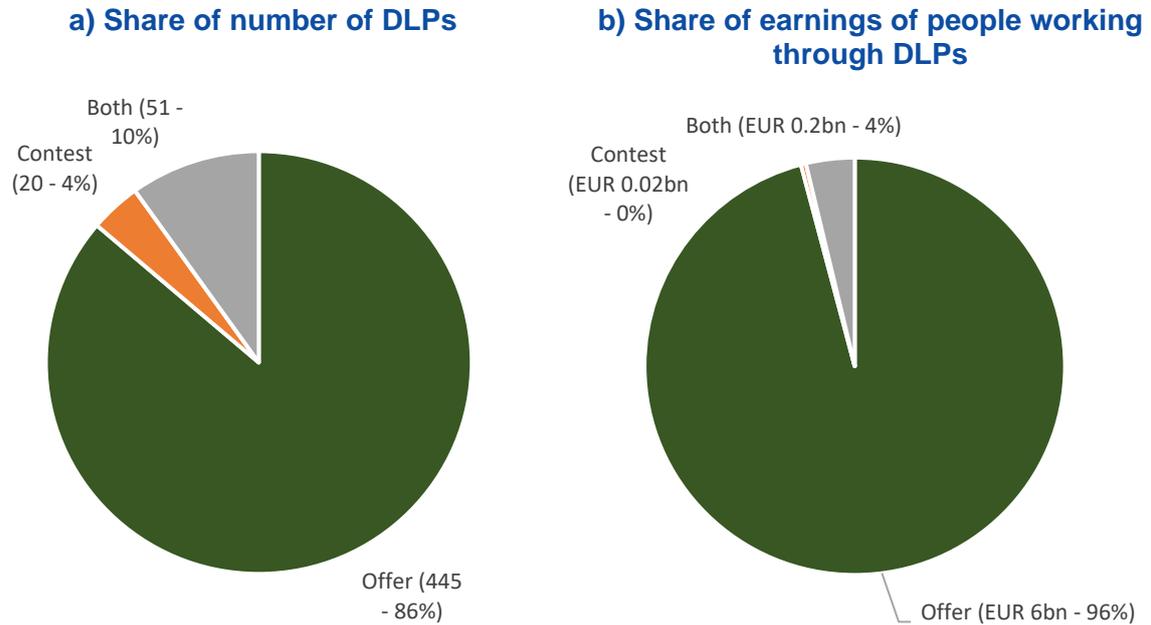
Note: The figure above shows the share of DLPs active in the EU27 in 2020 by form of matching, distinguishing between offers and contests (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

4.3.2. People working through platforms

In general terms, the larger the group of people that can perform a certain task, the weaker their negotiation position. In this sense, there is a larger potential group of people who can perform online tasks than those who can perform on-location tasks, and higher or more specific skills such as design or plumbing are more exclusive than general skills such biking or driving. The division of activities in multiple tasks can also contribute to easing tasks (De Groen and Maselli, 2016).

The majority of DLPs active in the EU (54%, or 278 active DLPs) offer services on-location (see Figure 20). This is mostly due to the relatively high number of DLPs offering delivery or personal transport services. DLPs that offer services online stand at 36%, while about 10% of DLPs mediate both online and on-location services.

In terms of earnings of people working through DLPs, the share of on-location services is even larger. Almost 90% of platform work is executed on-location, whereas the remaining platform work is either online (EUR 6 billion, or 89% of earnings) or a combination of both online and on-location work (EUR 0.2 billion, or 2% of earnings).

Figure 20 Delivery of service by DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Both (51 - 10%)

Online (187 - 36%)

On-location (278 - 54%)

Online (EUR 1bn - 9%)

Both (EUR 0.2bn - 2%)

On-location (EUR 6bn - 89%)
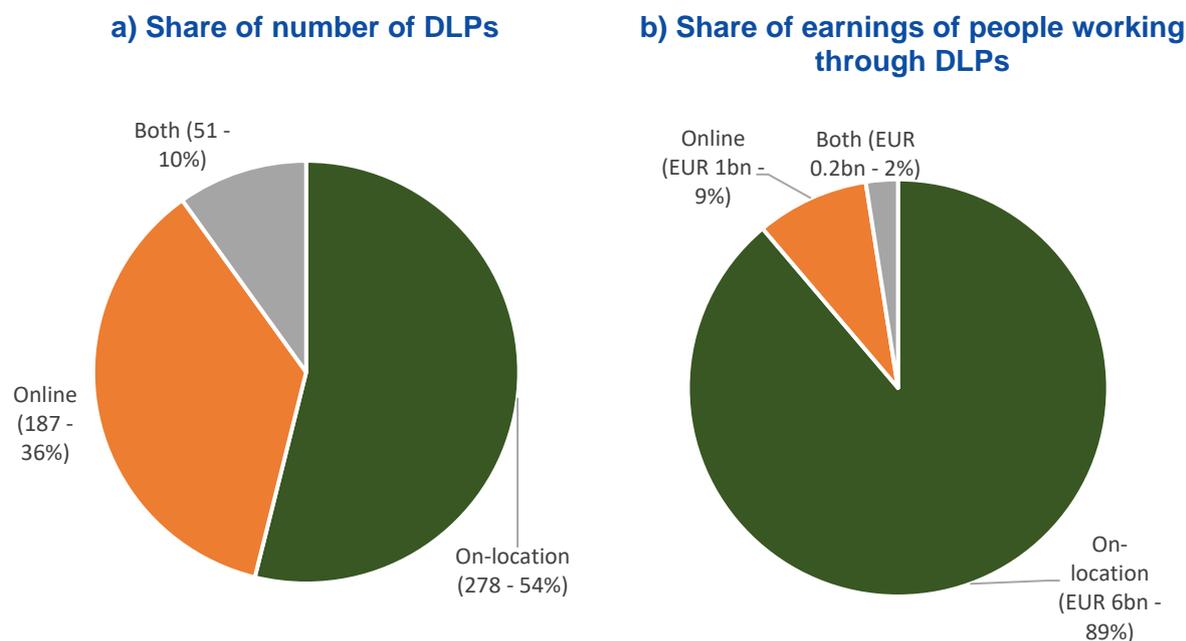
Note: The figure above shows the share of DLPs active in the EU27 in 2020 by delivery of service, distinguishing between on-location and online (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Wherever possible, **the scale and complexity of tasks seem to be reduced** for online forms of work. For example, many DLPs intermediate the task of translating a single sentence or word, rather than a whole text or page. This business model involves dividing jobs into projects, tasks or even smaller tasks, performing them independently and often autonomously, and then reintegrating them in order to create a specific output (Eurofound, 2017). Breaking down work into its smallest components enables the enormous flexibility of digital labour, as units of time and payment are broken down into seconds and cents (Schmidt, 2017).

This is also related to the increasing relevance of AI in such tasks. Workers are not only providing a service for the client, but are also providing data for the platform to improve its service offering without human intervention. They may also be accelerating a time when humans are less relevant for such services.

Most services intermediated by DLPs require a low skill level (see Figure 21). This is mostly true because for on-location DLPs, the majority offer delivery and personal transportation. However, other lower-skill services are also present, such as caretaking, cleaning and other domestic work on-location, and microtasking, transcribing and survey-taking online. About half of the platforms act as intermediaries for services requiring low skills (255, or 49% of active DLPs), while almost a third intermediates services requiring a medium to high level of skills (160, or 31% of active DLPs). Moreover, one in twenty platforms intermediate services that require various skills ranging from low to high (26, or 5% of active DLPs).

In terms of earnings of people working through DLPs, the importance of low-skilled services is even more evident. In fact, low-skilled services account for the large majority of earnings of people working through DLPs in the EU27 (EUR 4.4, or 70% of earnings). The remaining earnings consist mostly of services requiring low to medium skills (EUR 1.1 billion, or 18% of earnings). Most of the remaining services are split between high skills (EUR 0.4 billion, or 6% of earnings) and skills ranging from low to high (EUR 0.3 billion, or 4% of earnings).

Figure 21 Skill level required to perform service through DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs
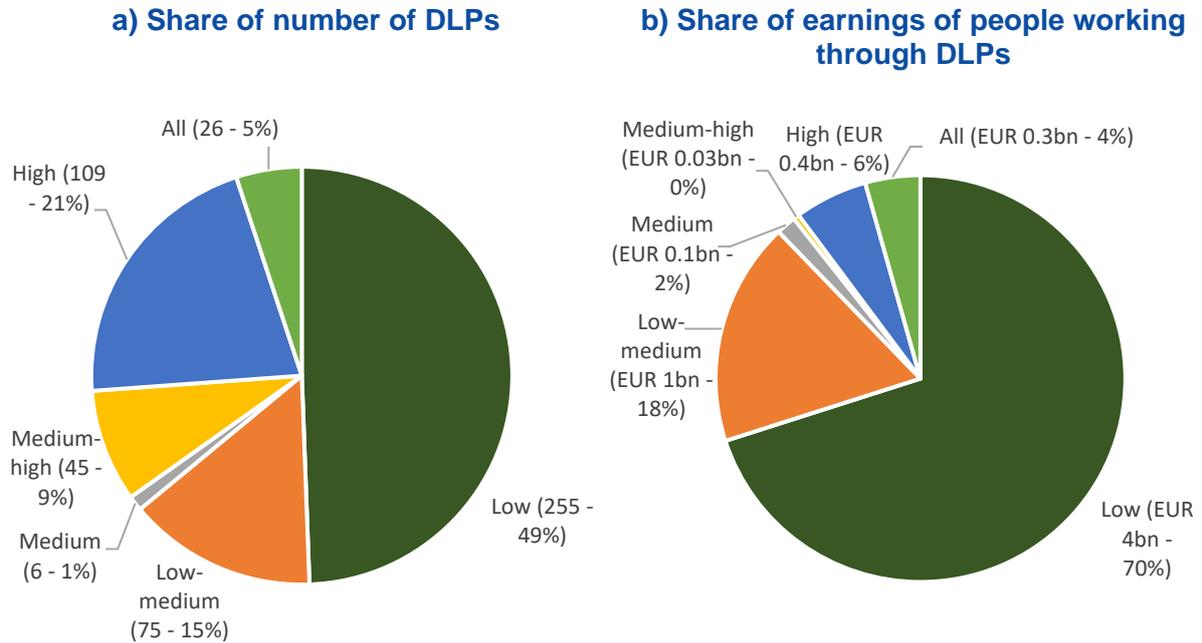
Note: The figure above shows the share of DLPs active in the EU27 in 2020 by skill level required to perform the service (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Looking to the standard occupational categories, services provided through DLPs are often difficult to match with existing professional categorisations of occupations like ISCO. For the purpose of this study, the services were coded according to all types of services intermediated by each DLP. The results, which are based on the number of DLPs across the ISCO categories (see Figure 22), indicate that services are quite similarly distributed, excluding categories six and ten. In turn, when the size of the platform activities measured by the earnings of people working through DLPs is considered, the lower skilled categories eight and nine become dominant, in line with the results obtained for the required skill level in Figure 21 above.

Figure 22 Services intermediated following ISCO categorisation by DLPs active in the EU27
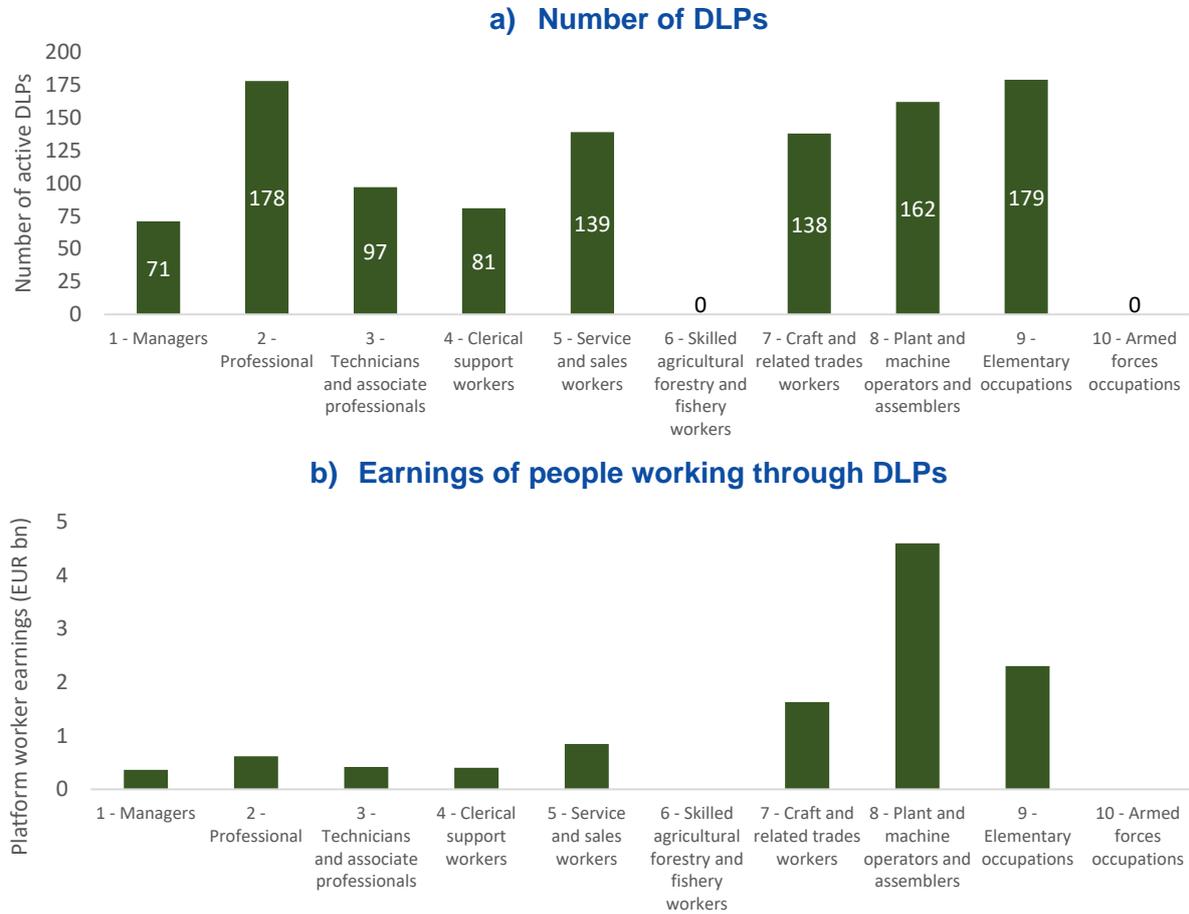
a) Number of DLPs

b) Earnings of people working through DLPs

Note: The figure above shows the number of DLPs active in the EU27 in 2020 intermediating services following the ISCO categorisation (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

The type of service intermediated by most DLPs can be classified in a single ISCO category (298, or 58% of active DLPs – see Figure 23). However, there are a substantial number of DLPs where the type of service intermediated falls under two to eight ISCO categories. These are primarily DLPs with relatively limited activities.

Figure 23 Number of ISCO categories intermediated by DLPs active in the EU27
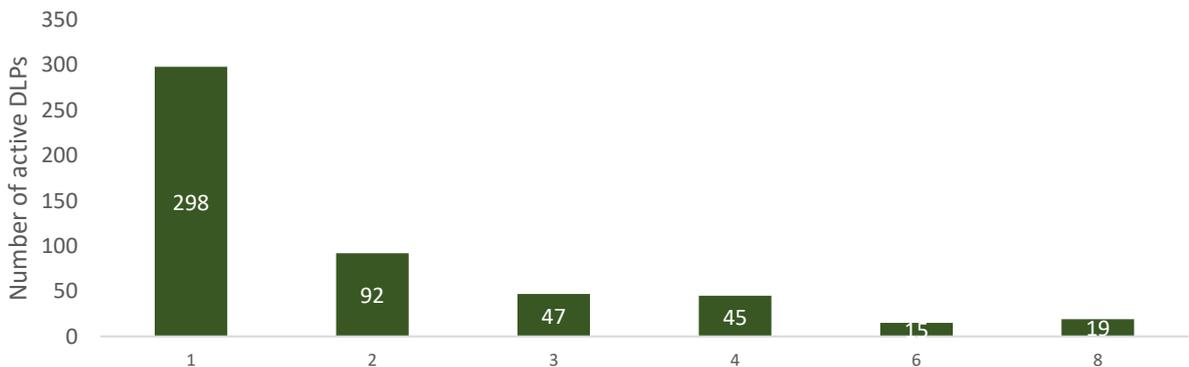
Note: The figure above shows the number of ISCO categories intermediated by DLPs active in the EU27 in 2020 (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

4.3.3. Clients

DLPs can act as intermediaries for services to natural persons or businesses as clients, and therefore operate as peer-to-peer (P2P), business-to-business (B2B) or peer-to-business (P2B) marketplaces, or a combination of these. In just over 50% of the DLPs in the dataset, accounting for most of the on-location DLPs, natural persons are the primary clients (see Figure 24). In terms of earnings of people working through DLPs, the share is even higher than 80%. Online DLPs more often target businesses as clients, with services like translation, data annotation and content design. Businesses seem to rely on online DLPs for outsourcing services of all skill levels, whereas on-location DLPs primarily offer services requiring lower skill levels to natural persons (such as personal transport, delivery and domestic services).

Figure 24 Primary types of clients of DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs
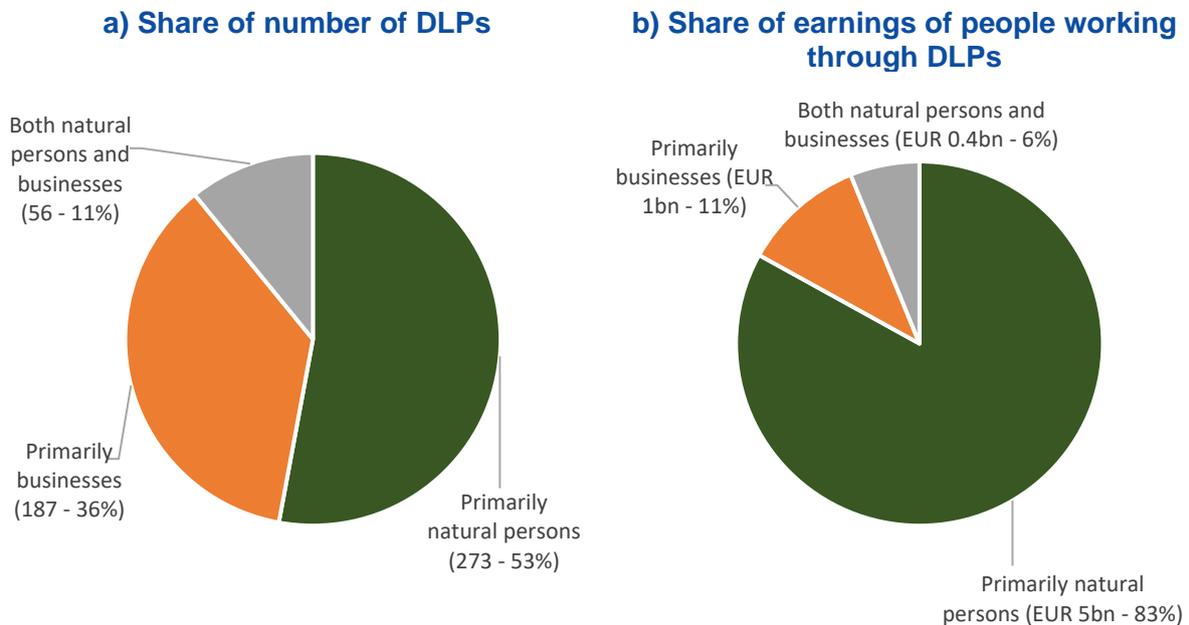
Note: The figure above shows the main types of clients for DLPs active in the EU27 in 2020 (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

4.3.4. Other parties

Beyond just the platform, the people working through the platform, and the clients, additional parties can also be involved. This illustrates how the idea of platform work as a triangular relationship is only a simplification, and more complex constellations of actors commonly occur. Additionally, it shows how simplifications like P2P and B2B are inadequate to grasp the many business models of DLPs.

Most commonly, DLPs offering delivery services partner with restaurants, grocery stores or other suppliers. Other DLPs partner with travel agencies and event coordinators, product developers, cloud storage services, educational institutions or payment service providers. The types of additional parties that are affiliated with DLPs vary a great deal depending on what services they intermediate, and what goods or services are required for the DLPs to function.

Platforms with one or more fourth parties involved form a minority (see Figure 25). In terms of both the number of DLPs and the share of earnings of people working through DLPs, less than a third of the platforms involve four or more parties in the transaction.

Figure 25 Additional (fourth) parties involved in transactions of DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs
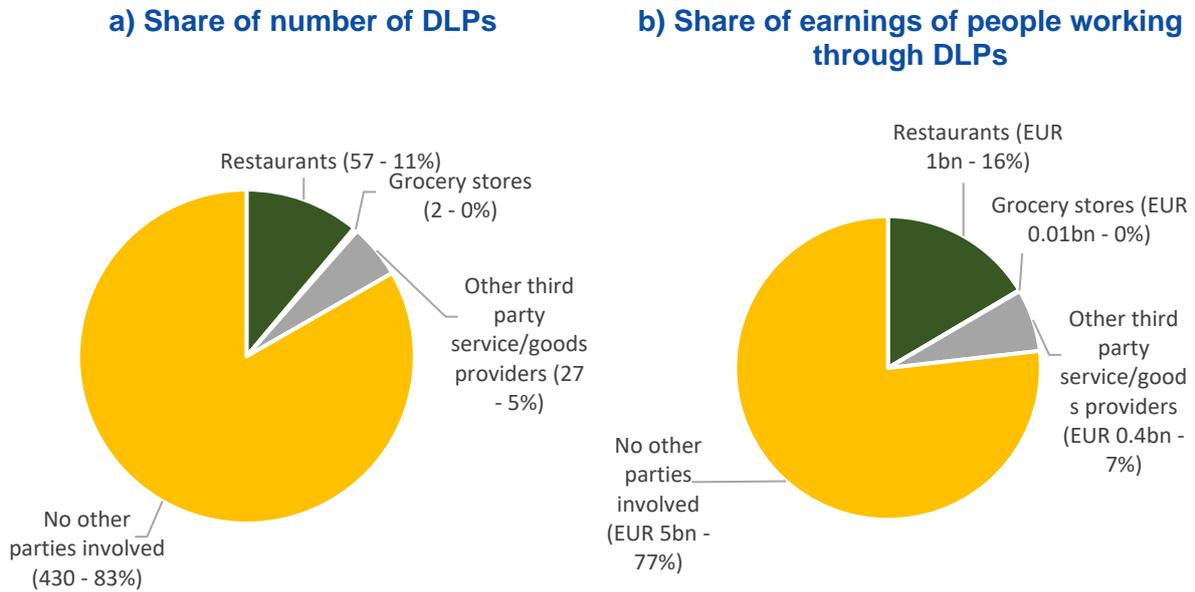
Note: The figure above shows the share of DLPs active in the EU27 in 2020 where a fourth party is involved in the transactions (N=516).
Source: Authors' estimations based on dataset of DLPs active in the EU27.

4.4. Platform revenues

DLPs obtain their revenues from the parties involved in the platform activities, including people working through platforms in certain cases, but there are also DLPs that obtain additional platform-related revenues.

4.4.1. Primary revenue sources

Generally, commissions on the services offered are the primary source of revenue for DLPs (see Figure 26). About three-quarters of DLPs charge a commission, while the other DLPs obtain revenues from subscriptions (58, or 11% of active DLPs), other sources such as advertisements (10, or 2% of active DLPs) or a combination of sources (37, or 7% of active DLPs). Further, some DLPs have no apparent revenue model (28, or 5% of active DLPs). Commissions are an even more important source of revenue when considering the share in earnings of people working through platforms (EUR 5.6 billion, or 90% of earnings).

Most platforms charge clients a commission fee for the intermediation service benefiting both the clients and the people working through the platforms. Many T&Cs explain what this is for, typically involving the overhead costs required to stay online. DLPs incur costs to provide both workers and clients with infrastructure, offering a centralised location to identify tasks or service providers, a method for submitting work, and technical and financial infrastructure to facilitate payment.

The two main ways in which this commission works is by charging a commission fee based on the service provider's rate, or charging a flat rate fee for a service, the latter of which is presumed to incorporate both the reward for the service provider and the platform's share (Fabo et al., 2017). The first type of commission appear particularly common on 'freelancing platforms', which tend to charge between 20 to 35% of the fee charged by the independent contractor, and on platforms that operate contests (Rani et al., 2021). On Freelancer, for

example, the platform deducts 20% of the amount that they bill to the client. Additionally, the client must pay 3% of the fixed fee or hourly rate ([17]).

Figure 26 Main revenue source for DLPs active in the EU27

a) Share of number of DLPs

No apparent revenue model (28 - 5%)
Combination (37 - 7%)
Other (10 - 2%)
Subscriptions (58 - 11%)
Commissions (383 - 74%)

b) Share of earnings of people working through DLPs

Combination (EUR 0.4bn - 6%)
No apparent revenue model (EUR 0.1bn - 2%)
Other (EUR 0.04bn - 1%)
Subscriptions (EUR 0.1bn - 1%)
Commissions (EUR 6bn - 90%)
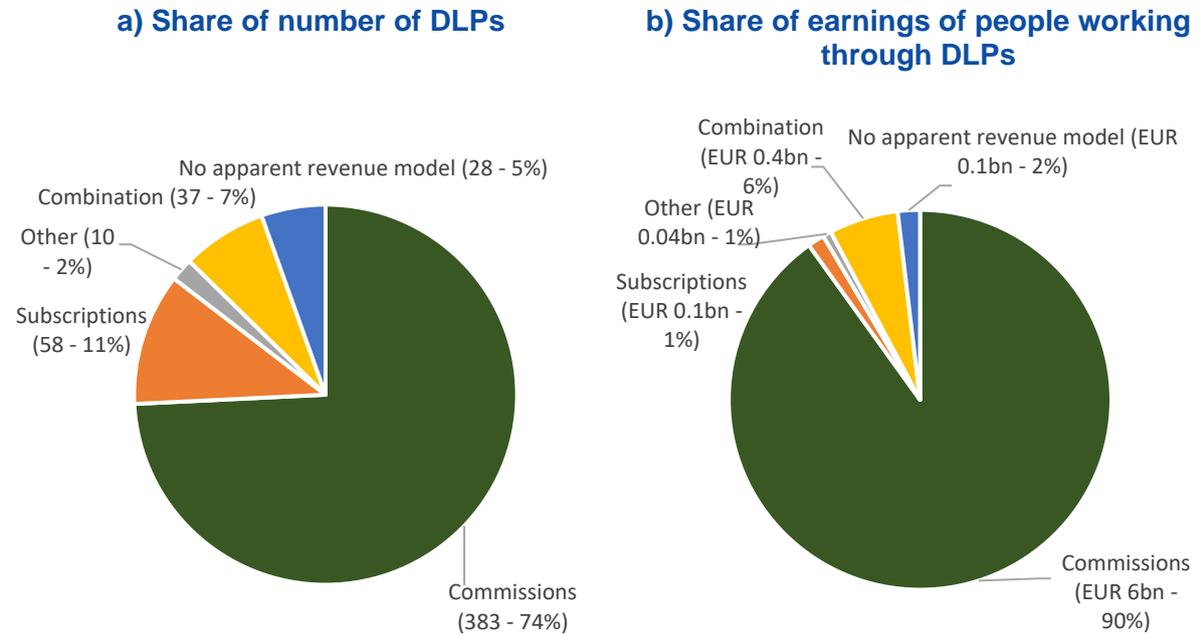
Note: The figure above shows the main revenue sources for DLPs active in the EU27 in 2020, distinguishing between commissions, subscriptions, other sources and no revenue sources (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Food delivery DLPs illustrate that multiple parties can be clients or partners of DLPs, and that **the business model can be more complex than a two-sided market**. Most food delivery DLPs charge restaurants for a percentage of the cost of the food delivered, while charging the client an additional payment and delivery fee. The person delivering food usually receives all or a portion of their delivery fee, but other arrangements (e.g. minimum hourly rates) are also possible. For example, Wolt has experimented with multiple payment arrangements in the countries where it operates. This experimentation was motivated by compliance with various national regulatory regimes, as well as finding a profitable model that riders would prefer.

Some (primarily online) DLPs offer 'full-service' solutions to set up and manage the posting of tasks on their platforms. The fees for such services are usually individually tailored to clients, and targeted to businesses with larger and more complex needs. These full-service solutions essentially add a manager between the client and the pool of people working through the platform, removing the client's need to manage and distribute work.

Some platforms charge clients an on-boarding fee and subscription fee, typically on a monthly or annual basis. In some cases, DLPs generate income not by charging customers or providers, but by offering additional paid services for people working through platforms, such as accounting (Fabo et al., 2017).

Clients may also be charged for premium features. For example, AMT charges additional fees if requesters want to target specific groups of workers based on qualification, demographic, etc. Such fees can be a fixed amount per assignment or a percentage of the total task price (Berg et al., 2018).

---

[17] See www.freelancer.com/feesandcharges.

Many DLPs have an **affiliate programme**, whereby clients earn money for finding other clients, or in some cases, people working through platforms find other workers. For instance, ridesharing platforms often offer bonuses to existing workers for recruiting new ones, as a means of dealing with high labour turnover (Drahokoupil, 2021). Earnings might then be based not only on one's own work, but also on the work of new recruits ([18]).

Exceptionally, some DLPs operate as not for-profit organisations. This was the case for French DLP Allovoisins (Fabo et al., 2017), although it has been registered as a simplified joint stock company (*société par actions simplifiée*) since 2018.

4.4.2. Charges for working through platforms

The majority of DLPs rely on commissions for their revenue, which can be imposed on either the client or the person working through the platform.

Additionally, **people working through platforms may be charged a variety of fees.** One common practice is to charge a **subscription fee**. Online DLP examples include Workana, Upwork and Topcontent, whereas on-location DLPs include Domestico24.es, Freelance.nl and Stootie. In many cases, multiple tiers are available with certain advantages (e.g. higher listings, tags or badges showing quality) associated with higher cost options. Other DLPs charge people working through platforms per bid. For example, workers can see client requests for service, but cannot contact them for free. Instead, they pay a fixed fee to contact the client with an offer. DLPs may also charge workers processing fees, for example if a payment provider like PayPal is used to pay workers (Berg et al., 2018). In some cases, workers are charged to continue a work relationship with a client off the platform (Berg et al., 2018). This appears to be intended to discourage people working through platforms from using the DLP to find work and then continuing a relationship with a client off-site, where the DLP cannot earn any commission.

Beyond these sorts of costs, **DLPs generally transfer fixed costs to the worker**. This works, for example, by making them bear the cost of providing and maintaining the equipment they need to work (Drahokoupil, 2021).

Generally, non-commission charges for people working through platforms seem to be more common for on-location forms of work. The reasoning for this seems to be linked to a fundamental problem facing on-location platforms – how to prevent people working through platforms and clients from finding one another, and then concluding their transaction outside the platform. In this case, the platform loses money, while the people working through the platforms and the client save it. This concern has proven to require a great deal of experimentation by on-location platforms. For example, De Groen and Kilhoffer (2019) found that one on-location platform allowed clients to post requested prices, which workers usually considered too low. This created a race to the bottom and drove away qualified workers, resulting in the platform changing its pricing system. Some platforms charge workers a fixed fee for contacting clients, while others have a variable fee based on the type of task performed. Such fees, and their opacity, are a frequent point of contention for platform workers interviewed in earlier studies (ibid.).

On the other hand, some prominent online DLPs rely heavily on charging people working through the platform. The ILO found that 62% of Upwork's revenues came from charging people working through the platform, whereas 38% came from charging clients (Rani et al., 2021).

---

[18] See, for example, www.hirewriters.com/affiliate.

Several interviewees expressed concern that charging people to work through platforms may violate the ILO Private Employment Agencies Convention ([19]).

4.4.3. Additional revenue sources

DLPs may engage in other activities than just intermediation of services. The data collected on DLPs active in the EU27 indicate that only about 12% to 14% of DLPs have additional activities (see Figure 27). In general, the larger DLPs are engaged in a greater number of and more complex activities. This is, however, not fully reflected in the figures, as for these DLPs the additional services are operated next to those of the platform. For example, next to its taxi and food delivery services, Uber also provides services such as scooter and bike rental, which in this case are not considered.

Figure 27 DLPs active in the EU27 with other activities than platform work

a) Share of number of DLPs   **b) Share of earnings of people working through DLPs**
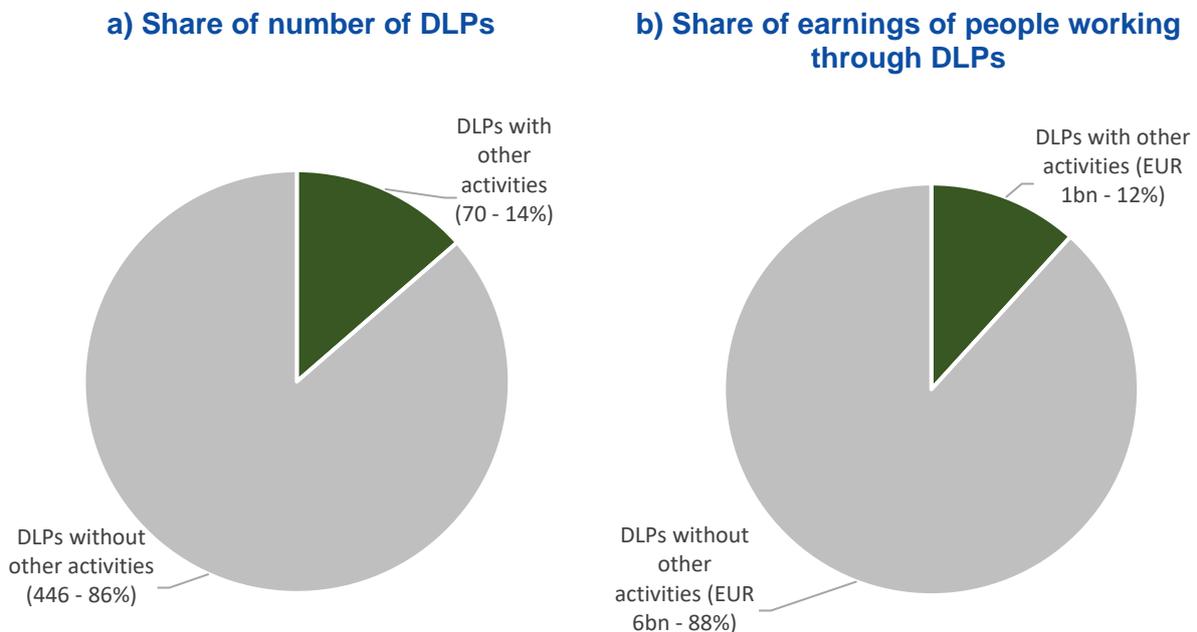
Note: The figure above shows the share of DLPs active in the EU27 in 2020 that offer other goods or services besides the intermediation of services through the platform (N=516).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

These non-platform work activities are quite varied (see Figure 28). The most common is logistics services, whereas DLPs offering the rental of physical goods or IT services are also common. Sometimes these activities are core to the service intermediated. For example, many personal transportation DLPs also offer drivers the option to lease a vehicle. Many translation DLPs offer both human and AI translation services, which tend to be mutually reinforcing; input from human translators trains the company's AI services. Often, suppliers (such as grocery stores or Ikea) partner with a DLP for delivery of goods, assembly and other services.

---

[19] The ILO Private Employment Agencies Convention, 1997 (No 181) states that 'private employment agencies shall not charge directly or indirectly, in whole or in part, any fees or costs to workers'. The Fee-Charging Employment Agencies Convention (Revised), 1949 (No 96) also indicates that workers should not be charged fees.

Figure 28 Additional revenue sources for DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Other
(5 - 7%)

Administration
services (4 - 6%)

Advertising and
promotion (5 - 7%)

Food ordering
and groceries (6
- 9%)

Education
(6 - 9%)

Rental
services
(8 - 11%)

Logistics
(23 - 33%)

IT services
(13 - 19%)

Administration services
(EUR 0.05bn - 6%)

Other (EUR
0.001bn - 0%)

Logistics (EUR
0.01bn - 1%)

Advertising and promotion
(EUR 0bn - 0%)

Food ordering and
groceries (EUR
0.14bn - 19%)

Education
(EUR 0bn -
0%)

IT services
(EUR
0.23bn -
31%)

Rental services
(EUR 0.31bn - 43%)

Note: The figure above shows the types of non-platform revenue sources for DLPs active in the EU27 in 2020 (N=70).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

DLPs often earn revenue from other sources than commission on the services they intermediate. For example, they may seek to **monetise data** collected from people working through platforms, clients or other sources. These data can simply be sold (i.e. to advertisers), which may form the base of a platform's revenue, or complement commissions or other sources. Monetising data can also take a more long-term perspective. One example is some DLPs providing personal transport also investing in self-driving cars. Furthermore, DLPs offering translation or transcription services may be developing natural language processing algorithms, etc. In this way, the DLP is able to create immediate revenue from intermediating a service, and potentially gain future revenue by using the people working through platforms to train AI ([20]).

4.5. Remuneration of people working through platforms

Most often, people working through platforms are paid in money by either the platform or the client, though the practical arrangements vary. The earnings of people working through platforms in a self-employed capacity depend on the price of the intermediated service, while people working through platforms under a work agreement receive their remuneration in accordance with this agreement (see section 5.2).

The **price of the intermediated service** can be set by the platform, worker or client. In some DLPs, such as those for freelancers (especially design tasks, programming and other higher-skilled tasks performed online), prices may be negotiated between the worker and the customer (Fabo, Karanovic and Dukova, 2017), or may be proposed by the worker on a 'take it or leave it' basis. Multiple pricing models are sometimes found on the same DLP. For

---

[20] This finding largely derives from semi-structured interviews conducted for the project.

example, PeoplePerHour allows clients to post a task and then receive bids from people working through the platform. These bids include a specific proposal and price for the service. Clients can also search for specific workers (by skills, location, rating, etc.), who set an hourly rate for their services ([21]).

Some DLPs set rates for a service. These DLPs tend to offer on-location services, with rates varying and often being determined by algorithms (Schmidt, 2017). For instance, Uber operates dynamic 'surge pricing' in order to achieve the highest possible levels of economic efficiency and effectiveness in matching demand and supply at any given time and depending on market characteristics (Möhlmann et al., 2020). On food delivery platforms, other examples of dynamic pricing include offering bonus pay to workers during peak times, or promotional pay on orders that have been declined repeatedly (Griesbach et al., 2019). The price paid by the client impacts the amount earned by people working through platforms, but not necessarily in direct proportion. For example, Uber drivers' earnings are calculated based on a standard fare for each completed trip, surge bonus, minimum trip earnings, etc. ([22]).

However, people working through platforms are not always paid with money, but various types of points ([23]), credits, gift cards or other vouchers. Sometimes the mode of payment depends on the way workers access the DLP. For example, with Google Opinion Rewards, a survey platform, Android users are rewarded with credits that can only be used on Google's platforms (i.e. Play Store), whereas iOS users are compensated with money through a PayPal account.

In some cases, the way workers are paid varies by country. Workers in less-developed countries appear more likely to be paid with gift cards or vouchers instead of cash, compared with workers in developed countries (Berg et al., 2018; Rani and Furrer, 2020).

In many cases, clients must also purchase credits (generally revocable and non-transferable) using real currency, which are then used to hire workers. This often means that there is a threshold to deposit or withdraw money from the platform. Taking Hytchers – a delivery DLP – as an example, people working through the platform earn credits, which can be converted into different awards. Awards cannot be redeemed until 500 points are earned.

Beyond potential economic benefits for the platform, using 'points' or 'credits' seems to be linked to avoiding recognition that work is being performed through the platform. Most online DLPs classify people working through platforms as self-employed, but Berg et al. find that some DLPs classify workers as 'participants' who receive 'rewards' rather than payment (2018). As a consequence, people working through platforms have had to contest this classification to access labour protections and benefits. Furthermore, Prolific (a DLP using this practice) links to a UK tax law site suggesting that people working through platforms do not need to pay taxes on their earnings from the survey site ([24]).

On some platforms, favourable user behaviour is rewarded with virtual credit points that may also feed into public rankings and often serve as a pseudo currency within the reputation economy of the platform, but are not transferable (Griesbach et al., 2019).

4.6. Profitability

Most DLPs were not profitable in the years under study. Rather than immediate profits, they aim to achieve rapid growth in terms of usership, customers, transaction numbers and other indicators. When starting out, some DLPs may opt not to charge clients, or they may choose

---

[21] See www.peopleperhour.com/how-it-works.

[22] See www.uber.com/lt/en/drive/how-much-drivers-make/.

[23] For example, www.idle-empire.com allows people working through platforms to 'earn points for skins, games, gift cards & cryptocurrencies'.

[24] 'There will be no tax or NIC liability arising on the individual if the sums received do no more than reimburse the individual's reasonable costs of participating in the trial or research, including costs of travel and subsistence'.

to offer substantial discounts or subsidies to clients or people working through the platforms, and/or spend significant resources on marketing in order to establish their network (Fabo et al., 2017; Drahokoupil, 2021).

The majority of DLPs aim to obtain a dominant position in the market, which allows them to earn larger profit margins. They finance their initial investments or operational losses with support from venture capital, angel investors, initial public offerings (IPOs) and other sources (Fabo et al., 2017). Investor funding seems to vary substantially across the different types of services. For example, the ILO found that from 1998 to 2020, taxi and delivery platforms globally received USD 99 billion (about EUR 85 billion) in total investments from venture capital and other investors. Meanwhile, online DLPs only received USD 3 billion (EUR 2.5 billion) (Rani et al., 2021).

The dependence on investors and importance of a dominant market position is a trigger of many corporate actions. Indeed, many DLPs, especially smaller ones, go out of business within a few years if they are unsuccessful in growing their activity. Moreover, DLPs may be acquired by larger DLPs. For larger DLPs, it is often strategic to purchase a competitor, acquire data and technology, or acquire an established network in a new location.

According to experts interviewed for this study, the significant upfront investments required to grow a DLP are an important reason why cooperative or collective model DLPs, which in general do not have large resources, have not been able to scale up in the same way as for-profit competitors.

Similarly, DLPs often market themselves to appear more high tech and sophisticated than they really are. For example, during the study some 'learning platforms' turned out to be little more than websites operated by tutoring agencies, which appear to lack any form of algorithmic management. As such, some 'traditional businesses' are trying to capitalise on the popularity of DLPs by marketing themselves as such.

5. Business models and working conditions

Working conditions, also called job quality, are a multi-disciplinary, multidimensional concept generally understood as *'the extent to which a job has work and employment-related factors that foster beneficial outcomes for the employee, particularly psychological well-being, physical well-being and positive attitudes such as job satisfaction'* (Holman, 2013).

This section examines how far DLPs' business models impact the working conditions of people working through platforms, drawing on existing literature, the assembled dataset on working conditions in DLPs and, where relevant, additional information gleaned from interviews with stakeholders. In particular, three dimensions of working conditions, building on the adapted WES framework, are analysed, including the work, employment and social dimensions. DLP business models may influence each of these in turn.

The data analysis in this section follows the ILO typology for business models, whereas Annexes III and IV also provide the results for the Eurofound and COLLEEM typologies respectively. The analysis in this section is based on the working conditions of the people working through a sample of 38 active DLPs, including eight on-location platforms for which two or more countries were covered. The total number of country-DLP observations is therefore 52.

5.1. Work dimension

The work dimension of working conditions reflects the organisation of work and the environment in which workers conduct tasks. A key component of the business model of many DLPs is that platform governance, including work organisation and platform management, relies on the use of algorithms. Algorithmic management involves the large scale collection and use of data on platforms to develop and improve algorithms that carry out coordination and control functions, many of which are traditionally performed by managers (Möhlmann et al., 2020).

The first key function of algorithms on DLPs is the allocation of tasks that people working through platforms take on. Fabo et al. (2017) identify four main ways of assigning work on DLPs. The two most common are that (i) the platform serves as a marketplace where customers choose service providers directly, or (ii) the platform assigns tasks directly to people working through the platform. Additional models include service providers picking tasks autonomously, and contests, which are common in creative work.

In practice, however, analysis has shown that it is often difficult to ascertain how the client and person working through the platform are matched, and the responsible parties and methods of matching are often unspecified within a DLP. Moreover, even within one platform there may be multiple ways of matching. For instance, on some offer-based DLPs clients can either reach out to specific service providers themselves, post a specific task and wait for offers from people working through the platform, or allow the DLP to make suggestions of possible people who could carry out the task. Similarly, on contest-based platforms, clients can either create a contest or search for particular providers themselves. On some contest-based DLPs the number of contests that participants can enter is limited by the platform (Rani et al., 2021). Generally, task allocation is automated through an algorithm on many DLPs (Möhlmann et al., 2020). Equally, on platforms where customers can nominally select service providers themselves, the platform algorithm will make a preselection by only showing certain candidates to the customer (Fabo, Karanovic and Dukova, 2017).

The allocation of work through algorithms, an essential feature of the business model of many DLPs, can have a substantial negative effect on working conditions. Often, the allocation of work is untransparent and perceived as unfair by those people working through the platform

(Griesbach et al., 2019). The lack of transparency about the way in which the algorithm allocates work creates a large power asymmetry between the DLP and the people working through the platform (Basukie, Wang and Li, 2020; Rani and Furrer, 2020). In practice, the latter are often constantly on standby waiting to be allocated work, and feel that competition is intense, which can cause stress and worsen their work-life balance (Wood, Lehdonvirta and Graham, 2018; Garben, 2019).

Accordingly, algorithmic management can have a negative impact on the working conditions of people working through platforms by reducing the amount of control and autonomy they have over their work (Rani et al., 2021). Looking at the autonomy of people working through platforms active in the EU27, on more than half of the DLPs assessed, autonomy in task allocation is low, in that people working through platforms are generally allocated a task by the DLP (see Figure 29). However, there is also a significant proportion of DLPs (37%) where people working through a platform have high autonomy in task allocation. Expressed in terms of the share of earnings of people working through DLPs, a considerably higher proportion of people having low autonomy in task allocation is observed. The estimation indicates that about three-quarters of the share of earnings of people working through the selected platforms in the EU27 are generated on DLPs where autonomy is low. This is likely connected to low autonomy in task allocation being most common on taxi and delivery DLPs, which represent a high share of earnings of people working through platforms. In contrast, on other types of location-based DLPs and online web-based platforms, autonomy tends to be relatively higher.

Figure 29 Autonomy in allocation of tasks on selected DLPs active in the EU27

a) Share of number of DLPs
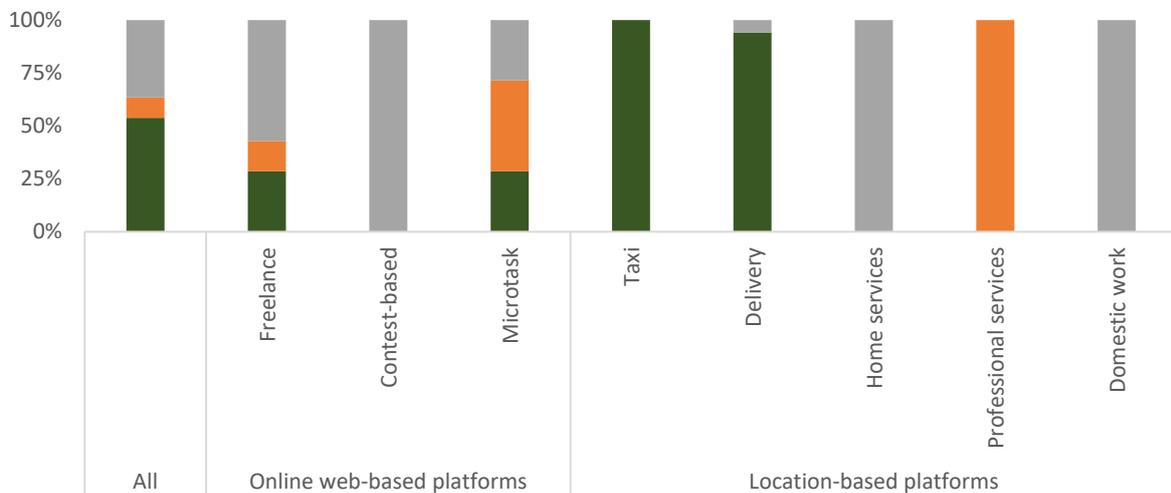
b) Share of earnings of people working through DLPs
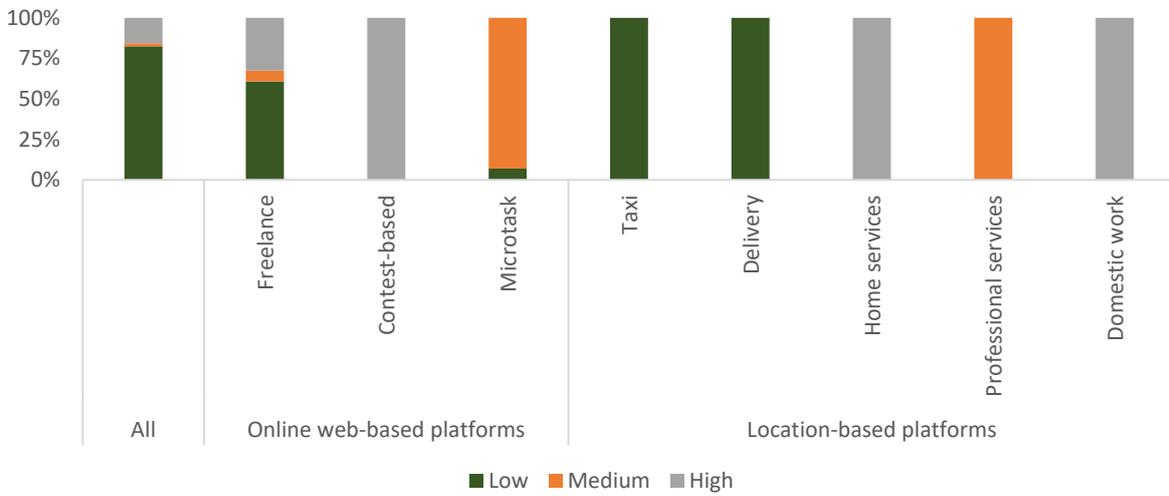
Note: The figure shows the level of autonomy that people working through platforms have in task allocation on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

A further dimension of working conditions that indicates the (lack of) control that people working through platforms have over the tasks they carry out is the extent to which they receive direction. Direction from either the platform or client, or both, is common across DLPs (see Figure 30). The DLPs where people working through platforms receive direction from both the client and the platform account for close to 75% of earnings of people working through platforms. This is particularly common on location-based taxi and delivery platforms, as well as online web-based freelance DLPs. For other types of location-based services, receiving direction only from the client prevails. The only case where no direction at all was observed was a contest-based DLP.

Figure 30 Direction on selected DLPs active in the EU27
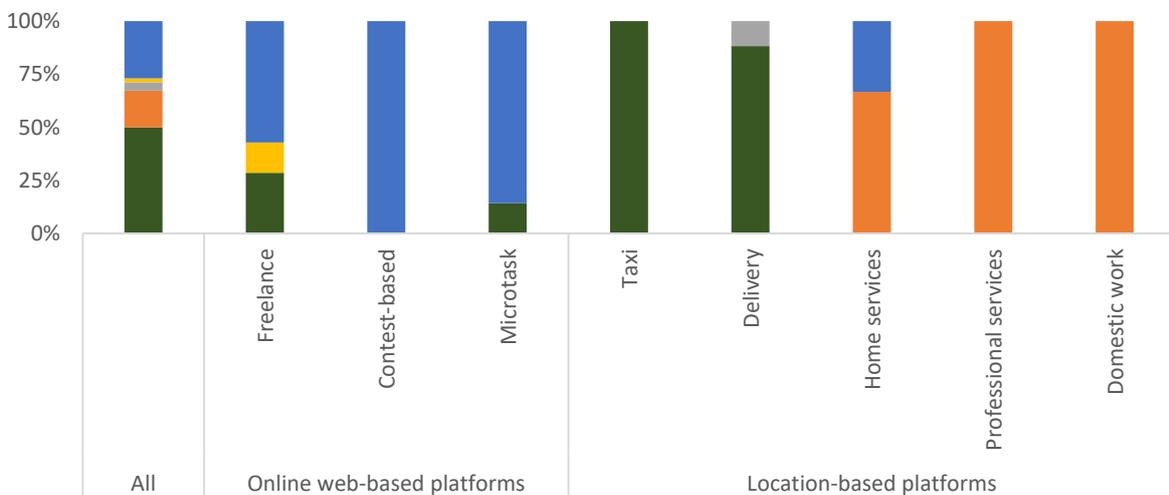
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Note: The figure shows from whom people working through platforms receive direction on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Relatedly, in addition to designing the matching process and giving directions, the DLP also sets the rules for which types of tasks are allowed. Some of these tasks may be dangerous or psychologically damaging (e.g. content moderation). Despite this, the majority of DLPs have no stipulation as regards the safeguarding against task-specific risks (see Figure 31). Policies that mitigate task-specific risks could include the provision of additional equipment or, in the context of the COVID-19 pandemic, policies to ensure social distancing and rider safety, while policies to actively improve working conditions move beyond this, for example by providing training on health and safety. As one would expect, online web-based platforms do not mitigate against physical risks. However, even for location-based platforms, there are discrepancies in the extent to which they have policies that mitigate against physical risks. People working through taxi or domestic work DLPs tend to be covered by such policies, and some delivery platforms have developed concrete policies that actively aim to improve working conditions. For instance, on the food delivery DLP Deliveroo in Italy, riders are entitled to specific safety equipment but also have access to training courses on road safety and health and safety at work through e-learning platforms. However, the proportion of delivery platforms stipulating such policies remains low. Furthermore, none of the home services or professional services DLPs observed stipulate any policy to mitigate against physical risks. The lack of safeguarding against physical risks can have a substantial negative impact on working conditions on on-location platforms – on the one hand, because workers face greater risk of injury, and on the other, because they face an additional risk of financial burden in the case of damage to their equipment (Rani et al., 2021).

Figure 31 Mitigation of physical risks on selected DLPs active in the EU27
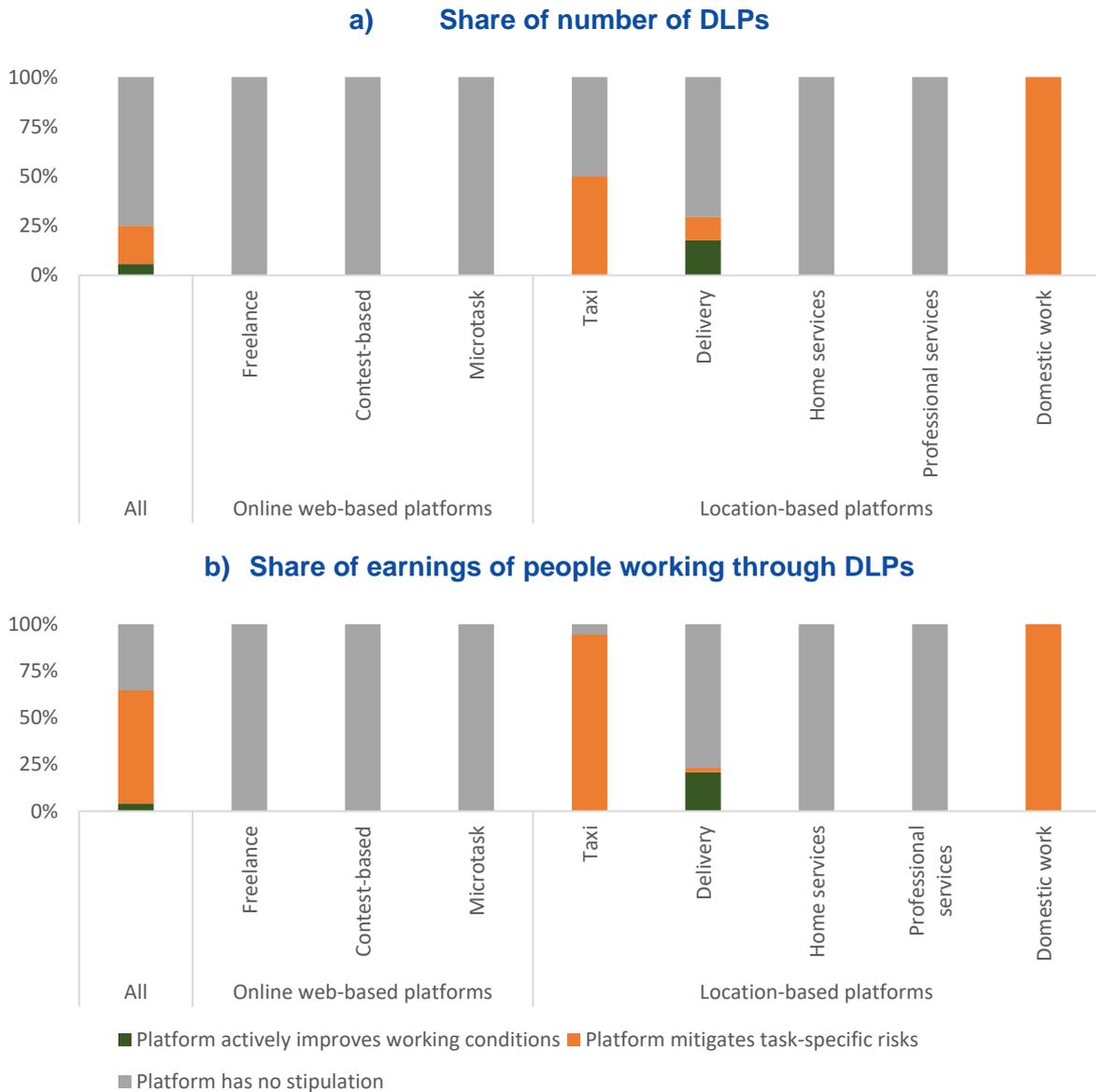
a)   Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform actively improves working conditions ■ Platform mitigates task-specific risks

■ Platform has no stipulation

Note: The figure shows whether and what kind of policies aimed at mitigating physical risks associated with platform work are stipulated on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

A second key feature of DLP governance is the use of algorithmic management not only for work allocation, but also for directing and evaluating people working through platforms. Many platforms seek to control the behaviour of the people working through them, which is achieved through detailed monitoring of their activities (Griesbach et al., 2019). One aspect of evaluating people working through platforms on the part of the DLP is surveillance. Indeed, close to three-quarters of DLPs use surveillance on the people working through platforms, either, as in most cases, by the DLP itself or, sometimes, by the client (see Figure 32). Looking at the estimated share of earnings of people working through platforms, DLPs where people working through platforms are overseen in some form, most commonly by the platform, account for approximately 90% of overall earnings. Surveillance by the platform is especially common on location-based taxi and delivery platforms, and also occurs on some freelance DLPs. In contrast, people working through platforms in home services, professional services or domestic work tend to be supervised by the client, while there is less surveillance on contest-

based and microtask DLPs. Examples of types of surveillance employed by DLPs include the use of GPS data to monitor worker location on on-location platforms, or monitoring systems that automatically take screenshots of workers' screens on DLPs where work is carried out online (Rani et al., 2021).

Figure 32 Surveillance on selected DLPs active in the EU27
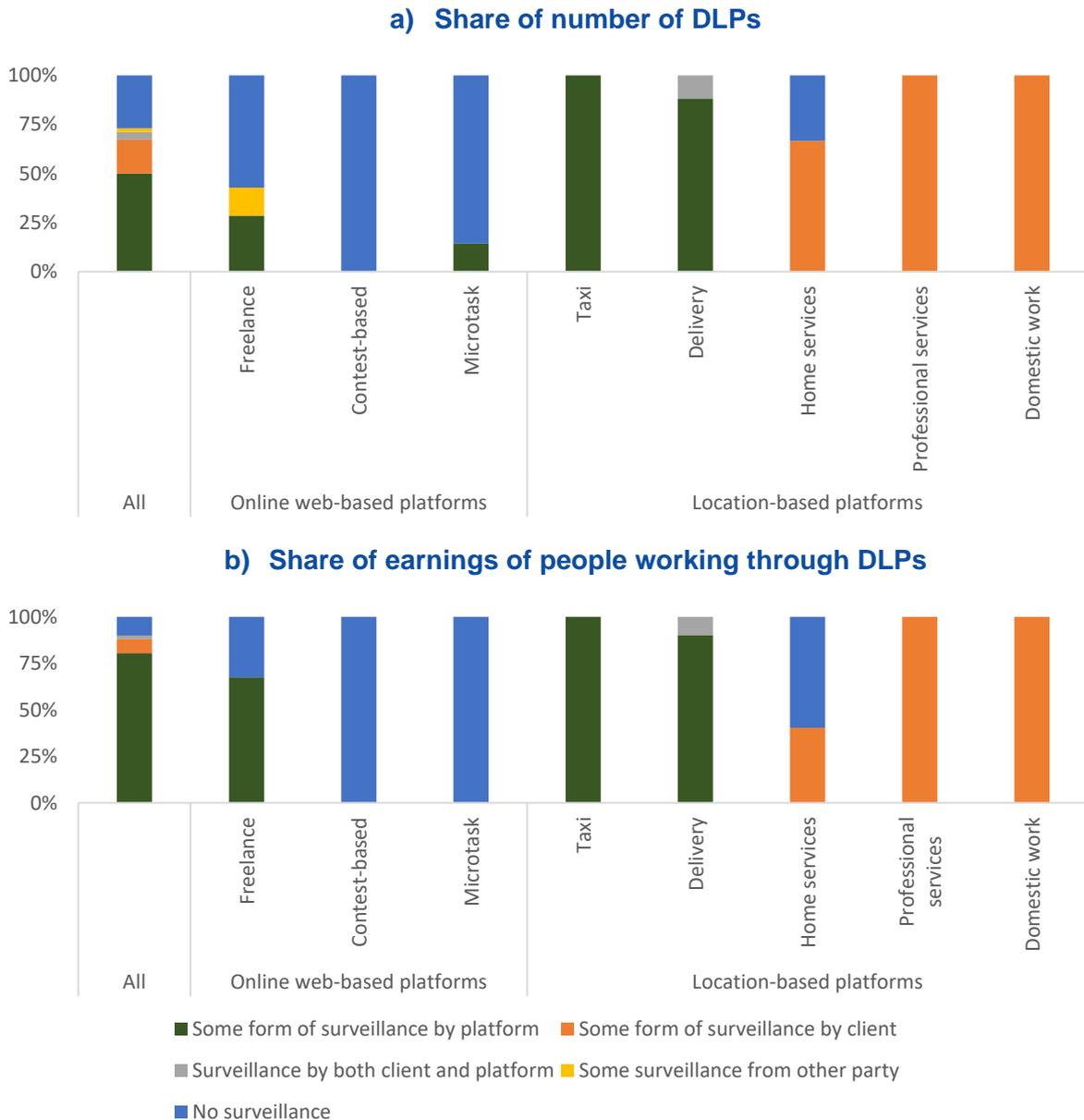
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Legend:
- Some form of surveillance by platform
- Some form of surveillance by client
- Surveillance by both client and platform
- Some surveillance from other party
- No surveillance

Note: The figure shows whether and by whom people working through platforms are overseen while carrying out tasks on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Client ratings are a further significant aspect of evaluation mechanisms on DLPs. Customer rating systems are implemented on many platforms and often feed into the monitoring of worker activities as a measure of performance (Griesbach et al., 2019). People working through platforms are appraised on all DLPs, most commonly by both the platform and the client, which is the case for DLPs representing 90% of the overall earnings of people working through platforms (see Figure 33). However, a discrepancy is observed between online web-

based and location-based platforms. The latter tend to include the appraisal of people working through platforms by both the platform and the client, whereas people working through online web-based platforms tends to be appraised only by the client or, in some cases, the DLP.

Figure 33 Appraisal of people working through selected DLPs active in the EU27
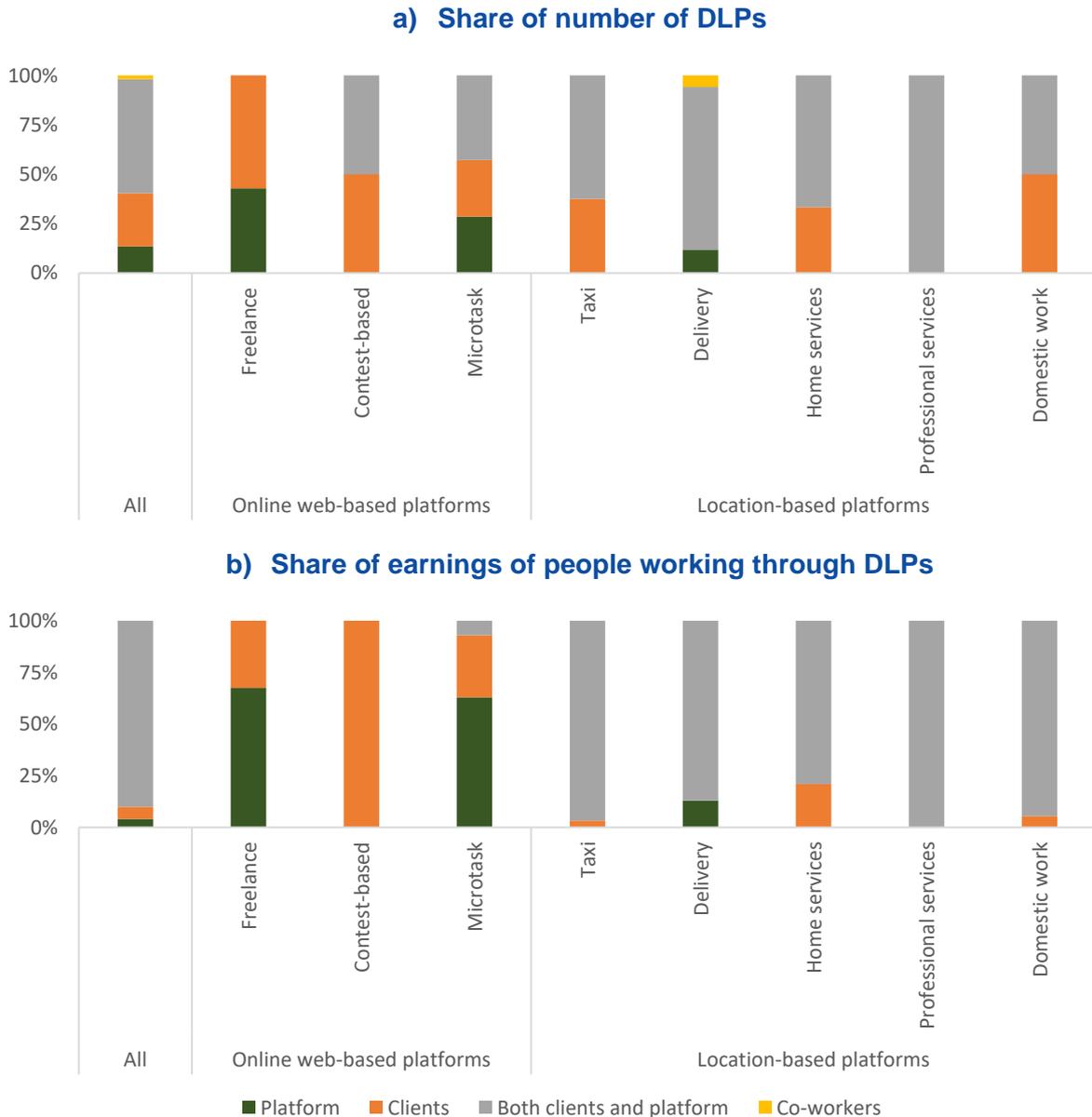
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform ■ Clients ■ Both clients and platform ■ Co-workers

Note: The figure shows whether and by whom people working through platforms are appraised after carrying out tasks on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Such evaluation by DLPs through surveillance and reliance on ratings can have negative consequences for the working conditions of people working through platforms. If they do not meet expectations, they are automatically, algorithmically rejected from future jobs by closing the account or making certain jobs invisible (Schmidt, 2017). For instance, Uber uses its algorithm to automatically ban drivers from the app, enforce sanctions and influence drivers' behaviour through nudges (Möhlmann et al., 2020). In addition to account suspension or termination, a further consequence can be the automated refusal of payment for completed

work without recourse or justification (Silberman and Johnston, 2020). As a result, in practice, people working through platforms often find themselves unable to refuse or cancel work due to potentially negative impacts on their evaluation and hence access to work (Rani et al., 2021). In this way, DLP management through algorithms further reduces the amount of control people working through platforms have over their work (ibid.)

Customer appraisal of people working through platforms in the form of ratings has become a means of decentralising management and outsourcing quality control for DLPs (Van Doorn, 2017). Ratings can have a significant impact on working conditions and pay, being a signal for the quality of products and services (Teubner and Glaser, 2018) and potentially leading to the creation of 'superstar effects' (Eurofound, 2017). In addition, the use of ratings for platform management can disadvantage new entrants to the DLP. As they do not yet have ratings and have to build their reputation from scratch, they may have to complete unpaid tasks to demonstrate skills or earn qualifications (Rani et al., 2021). Furthermore, ratings can influence the nature and amount of work that people working through platforms can access. For instance, some contest-based online DLPs determine how many and which contests designers are allowed to enter based on their skill level and, frequently, their rating, among other factors (Rani et al., 2021).

However, ratings are a flawed measure of quality, as they can be manipulated (Kadens, 2018), are subject to human or algorithmic error (Eslami et al., 2017) and can be highly inflated (Zervas, Proserpio and Byers, 2020). In practice, then, ratings hold little real information value and function as a means of employer control over the platform workforce (Adams-Prassl, 2019). As a result, decisions made by relying on rating systems are often erratic and strongly dependent on the design of the algorithm (Prassl, 2018); automated evaluation is opaque and frequently error-prone (Silberman and Johnston, 2020). In Germany, the IG Metall Ombuds Office frequently mediates cases where automated platform management has led to erroneous decisions (Silberman, 2018). For instance, in one case, a person working through a platform was refused payment for not being in the correct location to perform a task as monitored by their phone GPS, a mistaken decision caused by the person's proximity to multiple borders distorting GPS signals (ibid.). Such cases illustrate how automated platform management through algorithms can unfairly impact people working through platforms.

Overall, constant evaluation – through surveillance and appraisal – and lack of transparency about how the platform evaluates performance can negatively affect workers, as they feel pressure to accept jobs that are suggested to them so as not to be blocked (Griesbach et al., 2019; Möhlmann et al., 2020). Competitive rating systems encourage a rapid pace of work without breaks, risking accidents and stress (Garben, 2019). In addition, as it takes time to build up a high rating, and ratings rely on platform-specific indicators, linking work allocation to ratings restricts the ability of people working through platforms to 'multi-home', i.e. to use multiple platforms to increase their access to tasks (Rani et al., 2021).

Dependency on ratings is usually one sided, as people working through platforms cannot evaluate customers (Griesbach et al., 2019). As a result, transparency and accountability of DLPs towards people working through platforms appear limited. Evaluating clients is possible, for instance, on the transportation DLP Uber, or through the worker-led Turkopticon initiative on Amazon Mechanical Turk (Silberman and Irani, 2016). However, the option of appraising clients remains rare on most DLPs, being offered by less than a quarter of the platforms examined (see Figure 34). In contrast, the share of earnings estimates indicate that DLPs where the appraisal of clients is possible account for approximately two-thirds of earnings of people working through platforms. This is chiefly because this is possible on the taxi platform Uber, which accounts for a large share of earnings of people working through platforms.

Figure 34 Appraisal of clients on selected DLPs active in the EU27
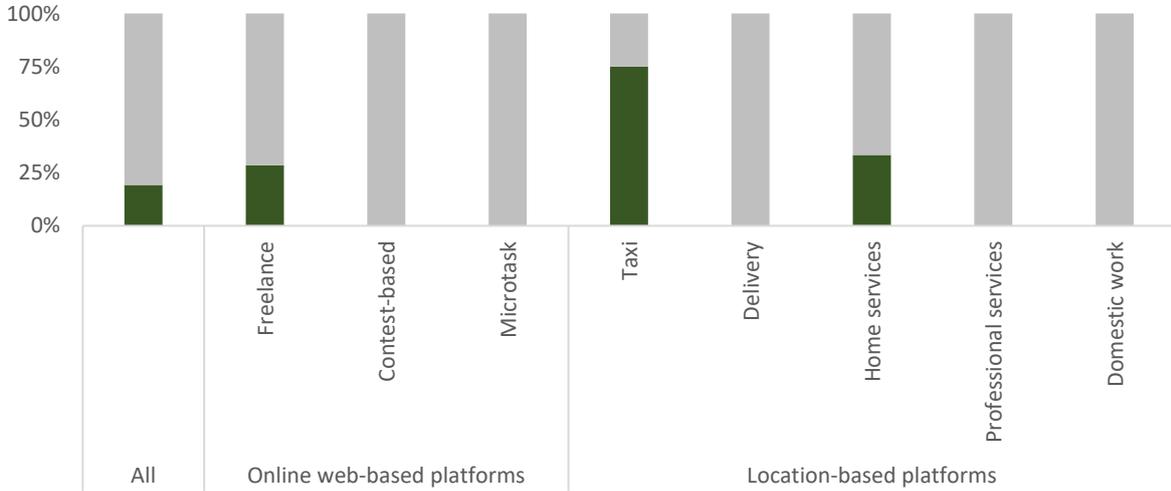
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform workers appraise clients ■ Platform workers don't appraise clients

Note: The figure shows whether people working through platforms are able to appraise clients on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

5.2. Employment dimension

The employment dimension of working conditions encompasses elements connected with workers' employment status and related aspects, such as working time, earnings and social protection. The business models of DLPs have important implications for the employment status of people working through platforms. As set out in the previous section, the vast majority of DLPs position themselves as technology companies with an intermediating function, and rely on a crowd of independent, self-employed contractors to carry out services. In fact, on 79% of the DLPs evaluated, none of the people working through the platform are formally employed, but are instead self-employed (see Figure 35 and Figure 36). These platforms account for approximately 95% of earnings of people working through platforms. A very small

minority of DLPs employ all of their workers, all of whom provide location-based delivery work. In particular, DLPs with people working through their platform as employees are more common in some European countries, such as Germany and the Netherlands.

Figure 35 Proportion of people working as employees on selected DLPs active in the EU27
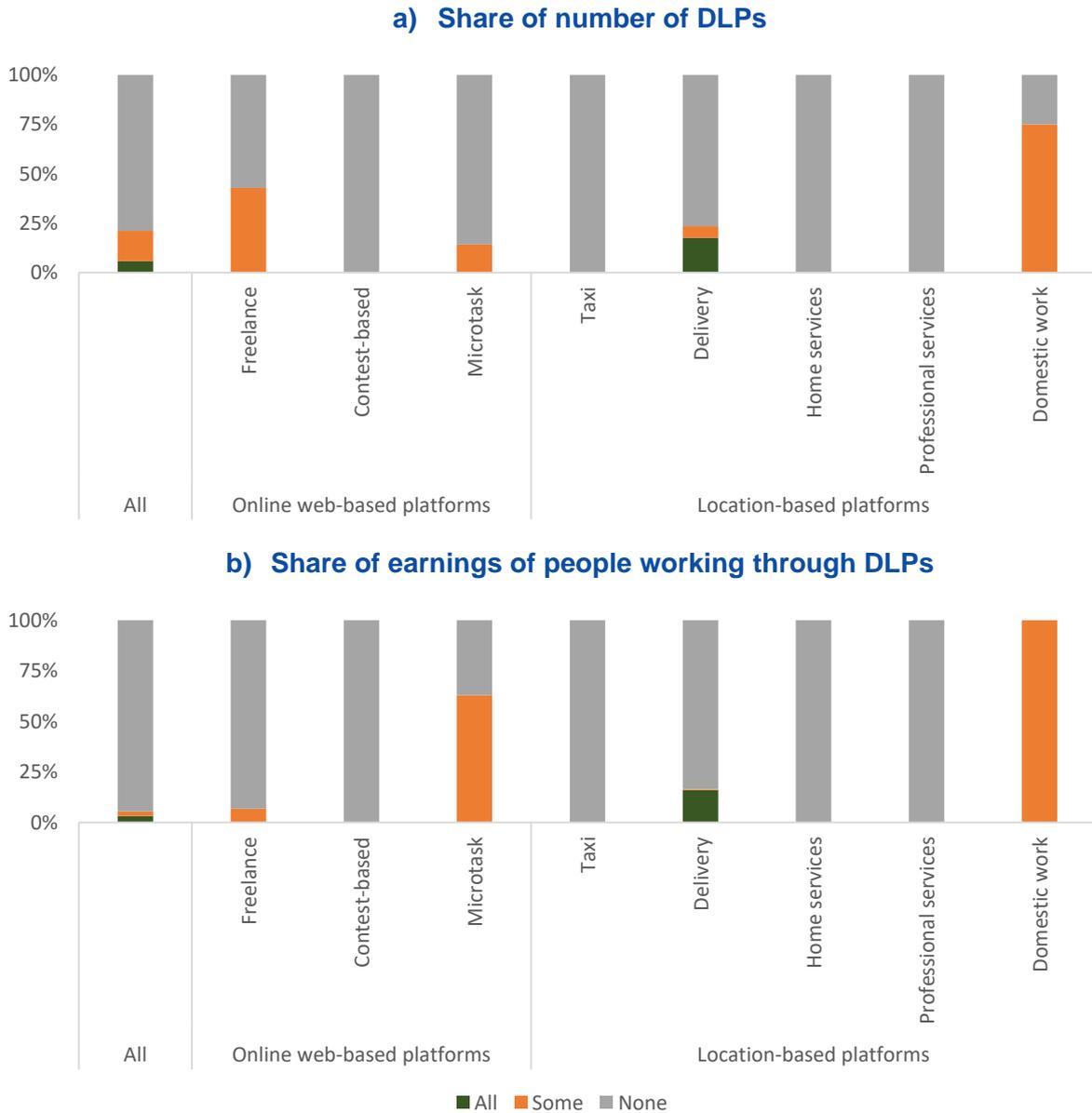
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ All ■ Some ■ None

Note: The figure shows the employment status of people working through the selected DLPs (N=52). 'All' indicates that the platform employs all people working through it, 'some' indicates that it employs some, and 'none' indicates that none are employed.

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Figure 36 Identity of employer on selected DLPs active in the EU27
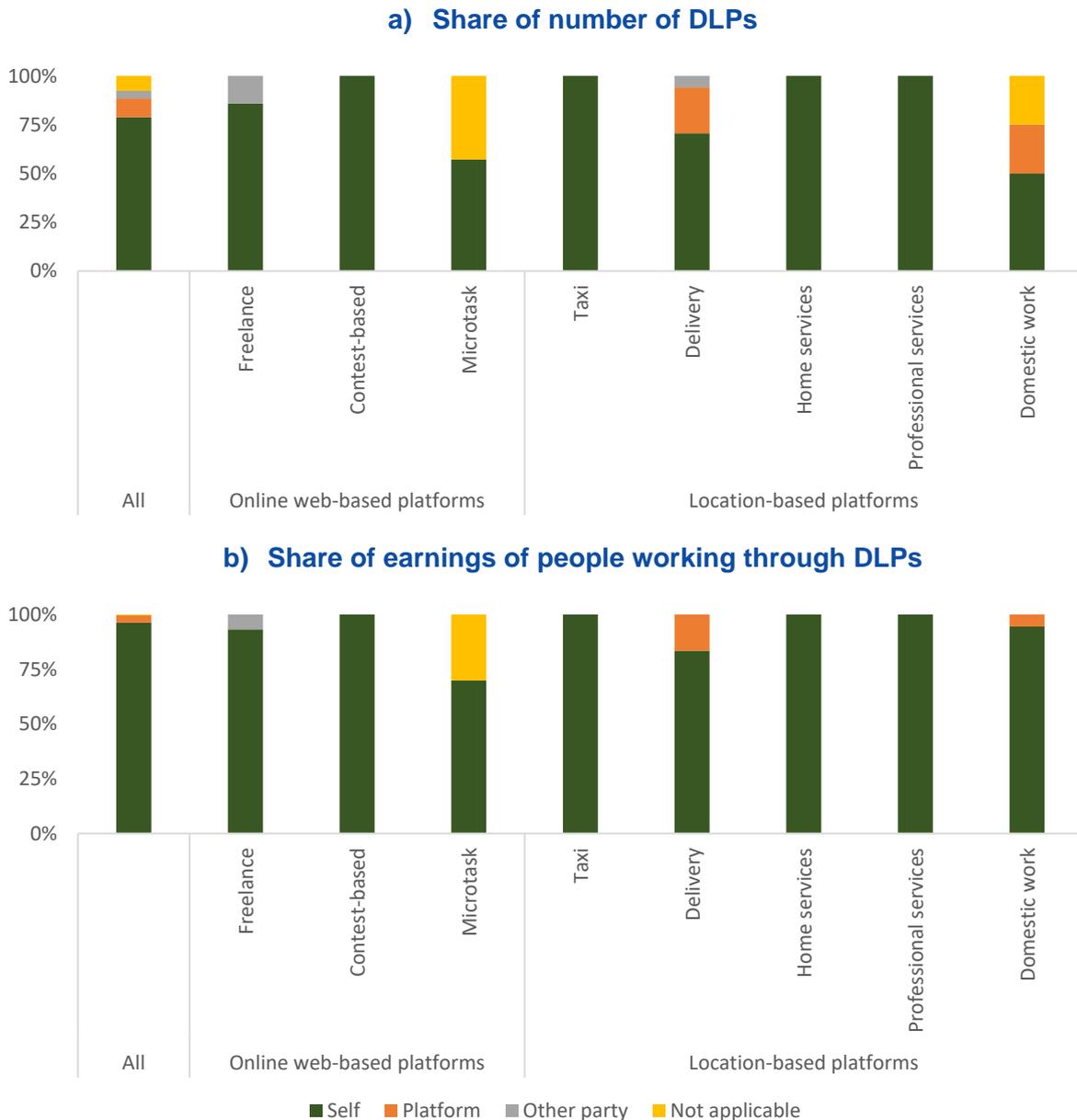
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Legend: ■ Self ■ Platform ■ Other party ■ Not applicable

Note: The figure identifies the employer of people working through the selected DLPs (N=52). For platforms with several types of employers, the most common one is indicated.

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

By positioning themselves as intermediaries between the customer and service provider, DLPs can shift most of the costs, risks and liabilities to other parties, usually the person working through the platform and the client (Schmidt, 2017). These include taxes and administrative costs, as well as the cost of worker protection. The contractual denial of employee status is a feature of nearly every work contract in the platform economy, which means that people working through platforms lack entitlement to the protective obligations of employers (Prassl, 2018). These include social, labour and health and safety protections (Garben, 2019).

For instance, on almost none of the DLPs do people working through platforms have access to unemployment benefits, given that they are classified as self-employed and as such do not have access to state-provided unemployment benefits (see Figure 37). DLPs where people working through platforms have no access to unemployment benefits account for approximately 97% of earnings. The exception are some delivery DLPs, where people working

through platforms hold employee status, as is particularly the case on some Dutch and German DLPs, and where they are accordingly entitled to the social protection accorded to employees. Similar results were found for other types of social protection, including health insurance, sickness benefits, maternity benefits, old age/survivors' pensions, invalidity benefits and family benefits. One exception is accident and occupational injuries insurance, which is offered on a substantial minority (23%) of DLPs (Figure 38). This can be traced back to location-based platforms such as delivery DLPs, which offer such insurance for people working on these platforms. The data available does not allow for an assessment of how far such coverage compares to that of employees carrying out similar tasks. In practice, it appears that rights and entitlements vary greatly between countries, as is the case, for instance, in Uber's partnership with AXA to cover platform workers' leave and benefits.

Figure 37 Access to unemployment benefits for people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Right to unemployment benefits   ■ No right to unemployment benefits
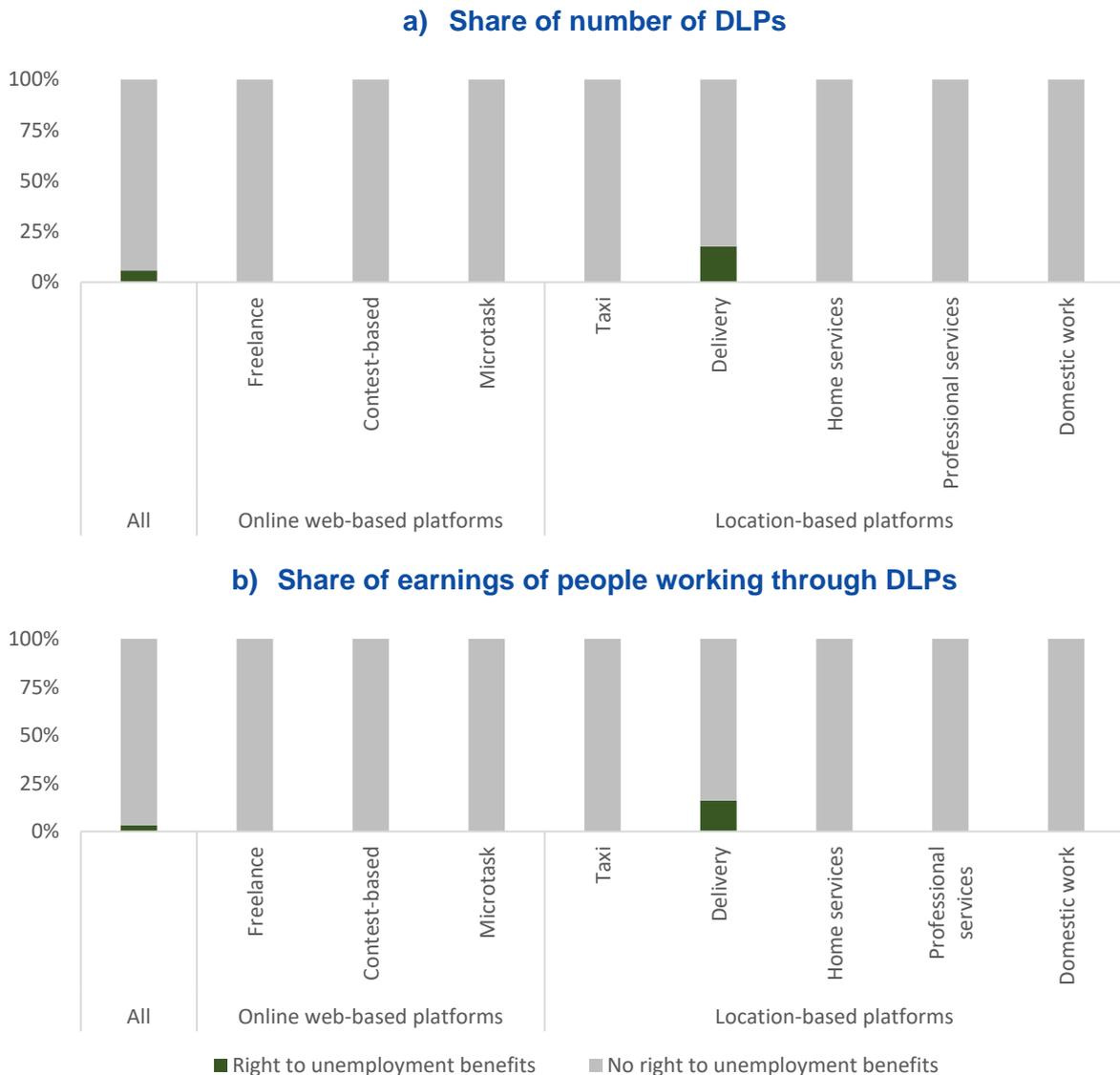
Note: The figure shows whether people working through platforms have access to unemployment benefits on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Figure 38 Access to accident and occupational injuries insurance for people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Accident and occupational injuries insured   ■ Accident and occupational injuries not insured
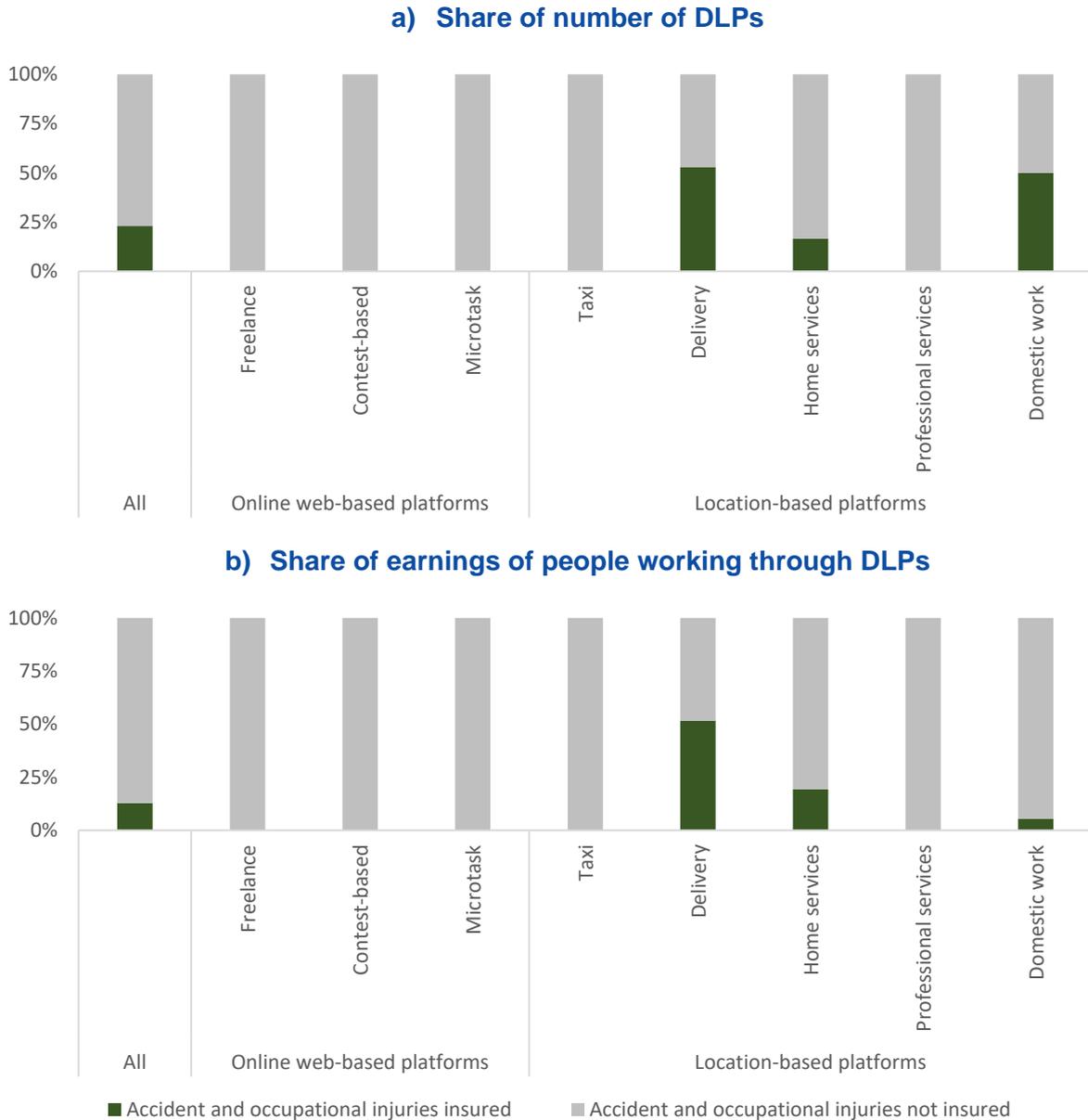
Note: The figure shows whether people working through platforms have access to accident and occupational injuries insurance on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

DLPs that operate in several countries generally use the same business model across countries, including the classification of the employment status of the people working through their platforms. In this sense, larger differences are found across DLPs than across countries with regard to business models and the resulting impact on working conditions. For instance, across the different countries examined, for the brands belonging to food delivery platform Takeaway, such as Lieferando in Germany and Thuisbezorgd in the Netherlands, all riders are employees, while this is not the case on other food delivery platforms such as Deliveroo and UberEats.

Nevertheless, the country context does also appear to play some role. One example is the food delivery platform Wolt, where all riders are generally self-employed, except in Germany,

where they are all employees. In interviews with experts, it was also confirmed that people working through platforms often have employee status in Germany. This could be traced back to the particular structure of the German labour market, which is characterised by relatively stringent labour market regulation and a strong corporatist tradition, but which also has a large low-wage segment, where many workers are employees on different types of flexible contracts and are not always covered by collective agreements (Fairwork Foundation, 2020).

The autonomy and control that people working through platforms have over their tasks is often low (see section 5.1). Yet, it does appear that people working through platforms are afforded some degree of flexibility with regard to working time, matching their status as self-employed. The large majority of people working through selected platforms are, according to the DLPs, free to choose or change their working time, in that they themselves can log onto the DLP when they want, or can choose their hours of availability (see Figure 39). These DLPs together represent 97% of earnings of people working through platforms. Moreover, none of the DLPs surveyed included an exclusivity of services provision in their T&Cs.

It should be noted, however, that these data refer to the formal stipulations that DLPs make as to whether people working through platforms are locked into any agreed working time. In practice, flexibility on working time may be more limited. In particular, DLPs closely monitor the working patterns of people working through their platforms. This information then feeds into the algorithm that determines work allocation, with more frequent participation often rewarded. As a result, people working through platforms may feel pressured to be constantly available (Garben, 2019; Möhlmann et al., 2020).

Figure 39 Working time for people working through selected DLPs active in the EU27

a) Share of number of DLPs
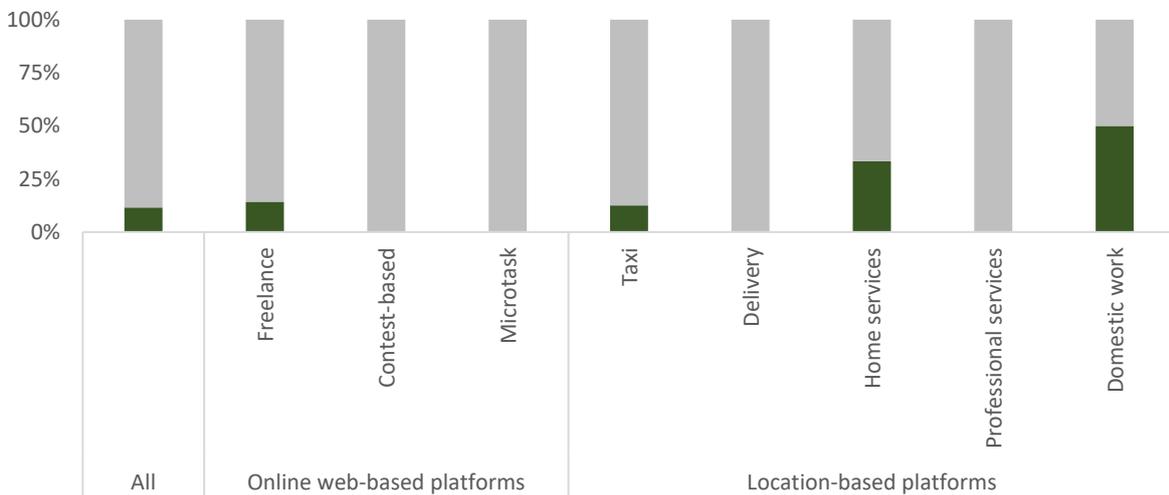
b) Share of earnings of people working through DLPs
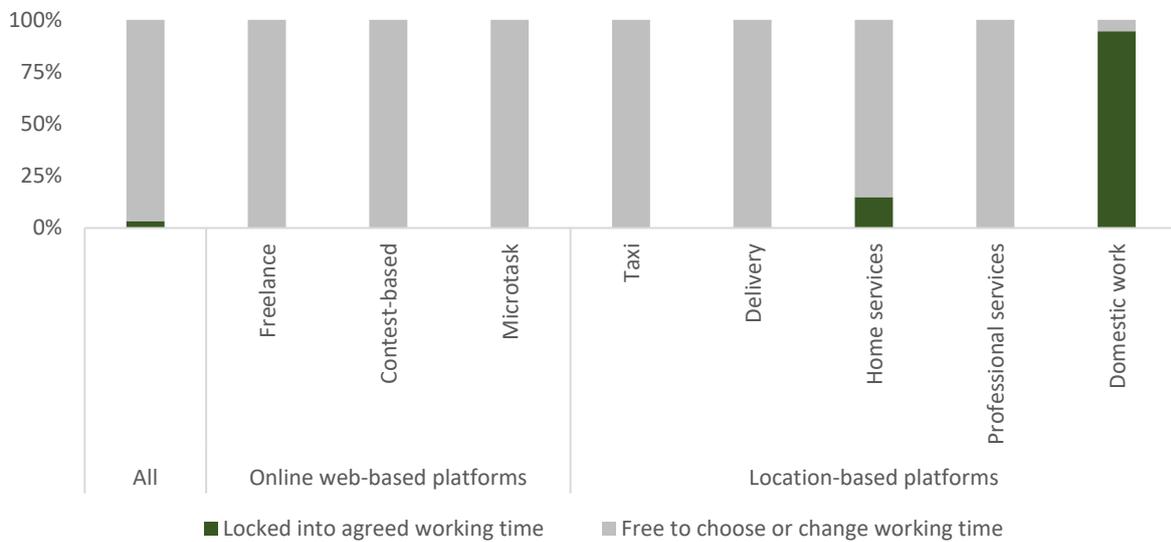
Note: The figure indicates whether people working through platforms can freely select their working time on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

As regards governance of the relationship between the DLP and the person working through the platform, the T&Cs that govern the relationship between the DLP and the people working through the platform are often out of date or opaque. Throughout the data collection for this analysis, an effort was made to collect and analyse the T&Cs of European DLPs. Some DLPs that are active in several countries have distinct T&Cs in different countries, whereas others apply the same rules across countries.

Overall, within the subsample of DLPs assessed, the analysis of T&Cs shows that on the majority of DLPs, reasonably clear T&Cs that refer to the relationship between the DLP and the person working through the platform are available (see Figure 40) ([25]). However, only a minority of T&Cs (19% of selected DLPs) clearly spell out the contractual relations between the DLP and the person working through the platform. On a further 10 DLPs, no T&Cs were publicly available. Looking at the share of earnings, DLPs with clear T&Cs account for 85% of earnings of people working through platforms, while those with T&Cs clearly reflecting the relationship with the person working through the platform represent a further 10%. This pattern generally applies across the different types of DLP.

---

[25] The analysis considers the T&Cs to be clear if some terms are available publicly and address the person working through the platform to some extent. T&Cs reflect the relationship with the platform worker if, beyond this, they explicitly and accurately address the employment relationship between the DLP and the person working through the platform. If people working through platforms are employees and therefore subject to an employment contract, or if it specified that they are subject to a contract of self-employment, they are also included in this category.

Figure 40 Contracts on selected DLPs active in the EU27
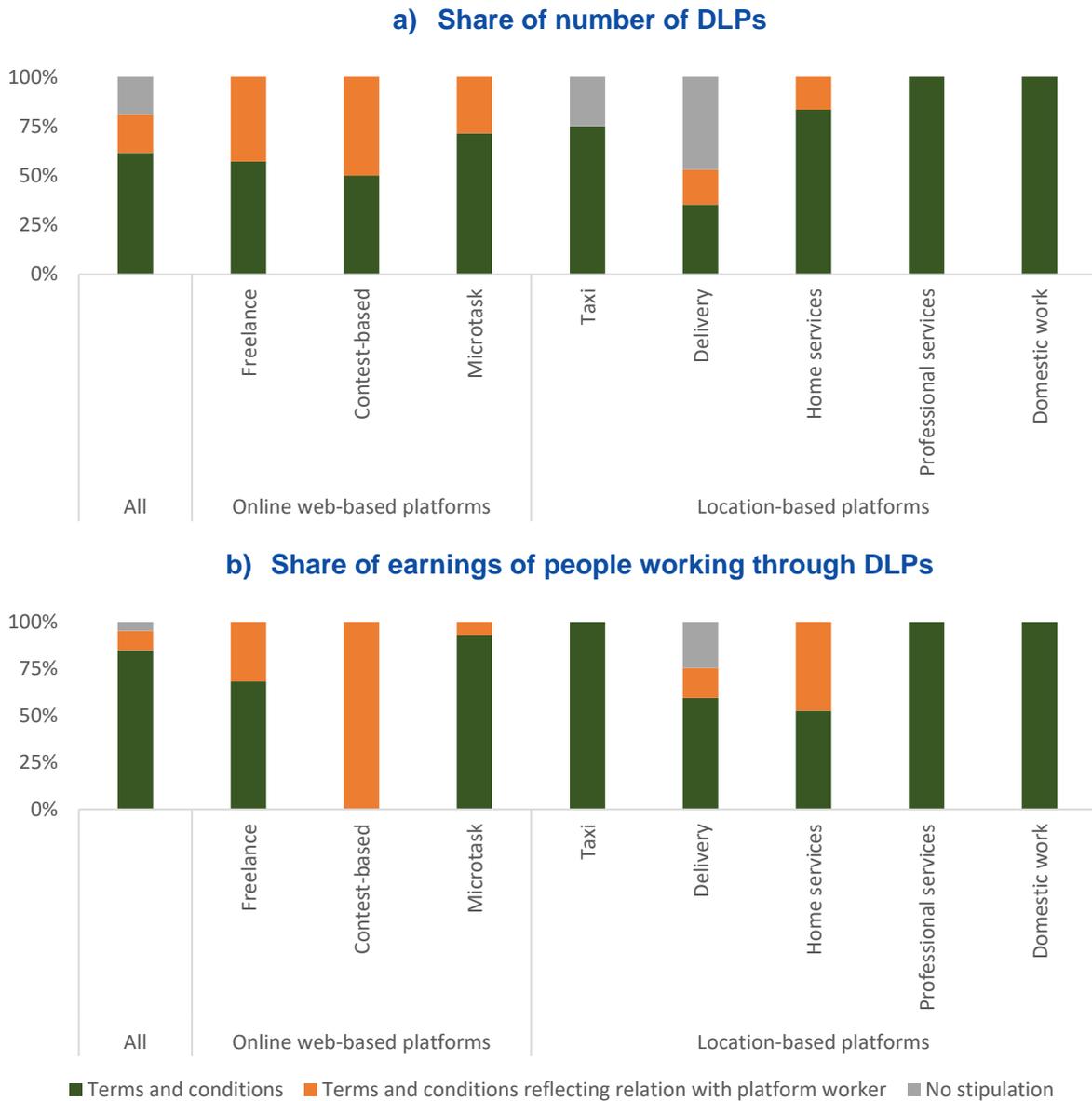
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Terms and conditions   ■ Terms and conditions reflecting relation with platform worker   ■ No stipulation

Note: The figure shows whether terms and conditions are publicly available on the selected DLPs (N=52). 'Terms and conditions' refers to the public availability of T&Cs that address the person working through the platform. They reflect the relationship with the worker if they explicitly address and accurately explain the employment relationship between the DLP and the person working through the platform.

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

In addition, in some cases DLPs may have very complex T&Cs that are continuously expanding (Schmidt, 2017). This can make it complex for workers to grasp the terms of their engagement. Surveys of people working on location-based taxi and delivery platforms, for instance, often suggested that they had not seen the T&Cs, and where they had, they did not read, remember or understand them (Rani et al., 2021) In addition, T&Cs are frequently amended, not always with notice given to the people working through the DLP. For example, near the bottom of its T&Cs, one DLP indicates that the worker is bound by five additional documents concerning privacy, data collection, etc. At the time of the analysis, the links for all of these documents were broken. As T&Cs are changing so quickly, working conditions are also subject to constant change.

Finally, the T&Cs commonly specify the conditions for account suspension or deactivation. On most DLPs, no dismissal or deactivation notice is stipulated (see Figure 41). As such, the DLPs that do stipulate a dismissal or deactivation notice account for only 12% of the overall earnings of people working through platforms. The lack of a dismissal and deactivation notice may exacerbate uncertainty about the continuity of work for people working on platforms.

Figure 41 Dismissal and deactivation notices on selected DLPs active in the EU27
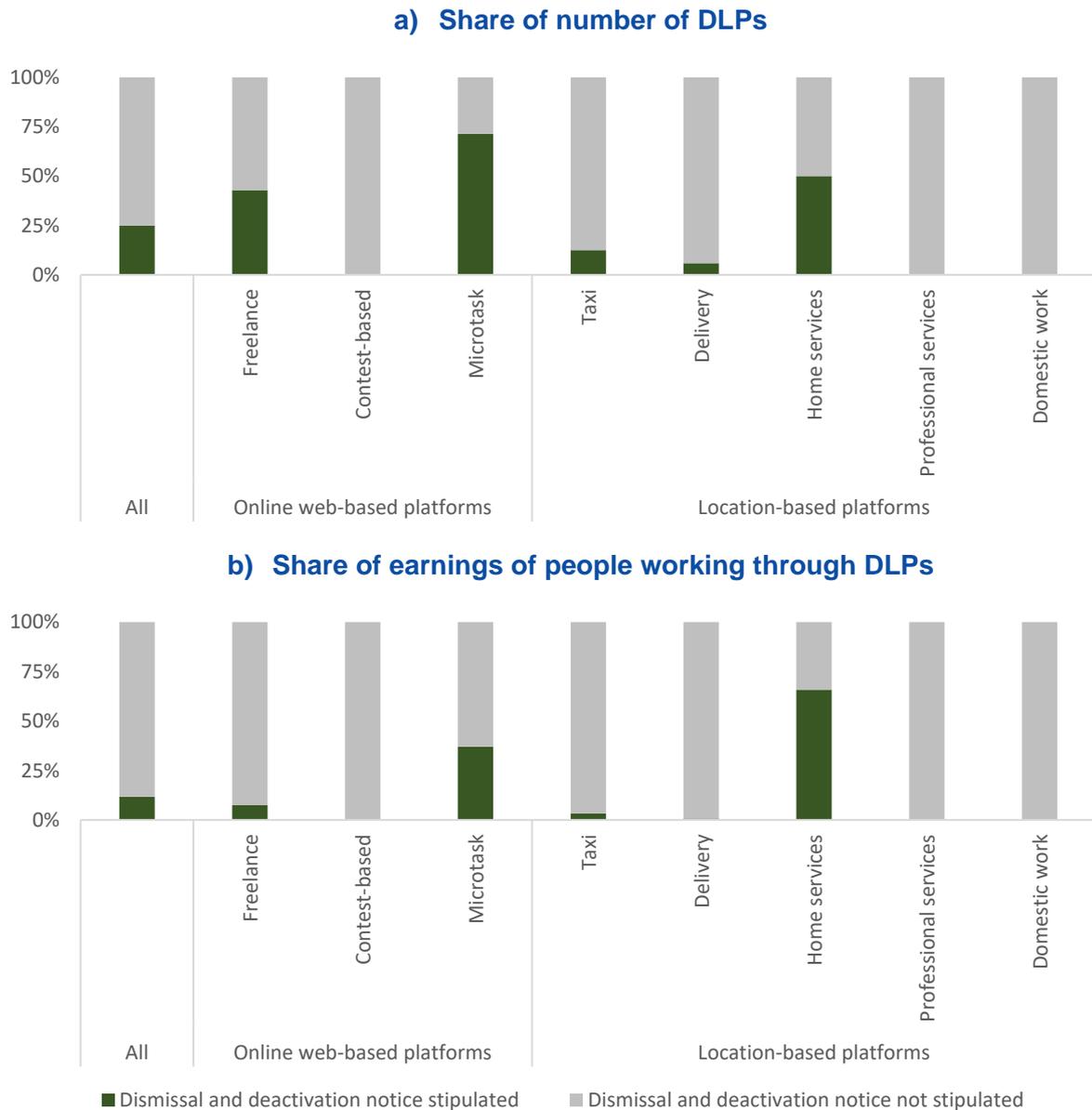
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Dismissal and deactivation notice stipulated   ■ Dismissal and deactivation notice not stipulated

Note: The figure indicates whether dismissal and deactivation notices are stipulated on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

A further significant aspect of the employment conditions of people working through platforms is their earnings. The relationship between revenue source, payment and working conditions is complex. Generally, the DLP sets the framework for the price of the service, how the DLP earns its revenue and how payment is disbursed. The revenue model of the DLP can have a significant impact on earnings.

People working through platforms may be charged a variety of fees by the DLP, including subscription fees or fees per contact with a client (see section 4.4.2). In such cases, people working through platforms are effectively paying to increase their chances of receiving work, but have no guarantee of actually being allocated tasks. This may have a substantial impact on their earnings. Moreover, in these cases, DLPs may have little incentive to increase the volume of tasks available, which may negatively impact the earnings. As highlighted by experts in several interviews, particularly on DLPs that rely on subscriptions for their revenue, a large share of people working through platforms have very limited or no earnings. In contrast, where DLP revenue relies on commissions from the tasks performed through the site, access to tasks may be relatively higher. Finally, charging for increased access to tasks imposes a serious entry barrier to work for those people working through the platform who do not have sufficient funds to pay for premium access (Rani et al., 2021).

Some researchers have characterised DLPs as encouraging the gamification of labour, as people working through platforms have to work out how to 'game the system' in order to maximise earnings (Möhlmann et al., 2020). On on-location platforms, the mechanism that determines the current rates for a service is unclear to people working through platforms, and some DLPs are untransparent with regard to tipping, sometimes attempting to integrate tips into base rates (Griesbach et al., 2019). Many people working through these platforms rely on bonuses and other forms of incentive pay for a large portion of their income, which further intensifies the gamification of work (Rani et al., 2021). On contest-based platforms, rules for how commissions are charged can vary and have a large impact on people working through platforms; often, they have a very low chance of being paid at all and are at risk of very low or no earnings (Schmidt, 2017). This uncertainty with regard to earnings can have a significant negative impact on people working through platforms. In addition, further pressure is put on earnings as they may spend a substantial portion of their working time waiting or searching for tasks, for which they are often not compensated (Berg et al., 2018; Eurofound, 2018).

The majority of DLPs do not stipulate a minimum rate to be paid on their platform (see Figure 42). A total of 18 of the 52 selected DLPs do determine a minimum rate, though this does not mean committing to paying the local minimum wage for employees. The share in earnings of people working through platforms show that DLPs offering a minimum rate represent only 8% of earnings. Minimum rates are stipulated on some microtask platforms that specify a minimum fee per completed task, as well as on some delivery DLPs and in particular on DLPs that offer domestic work. However, overall, people working through platforms tend to face substantial uncertainty with regard to their earnings, as either DLPs do not stipulate a minimum rate, or the rate paid does not meeting the minimum wage.

Figure 42 Earnings of people working through selected DLPs active in the EU27
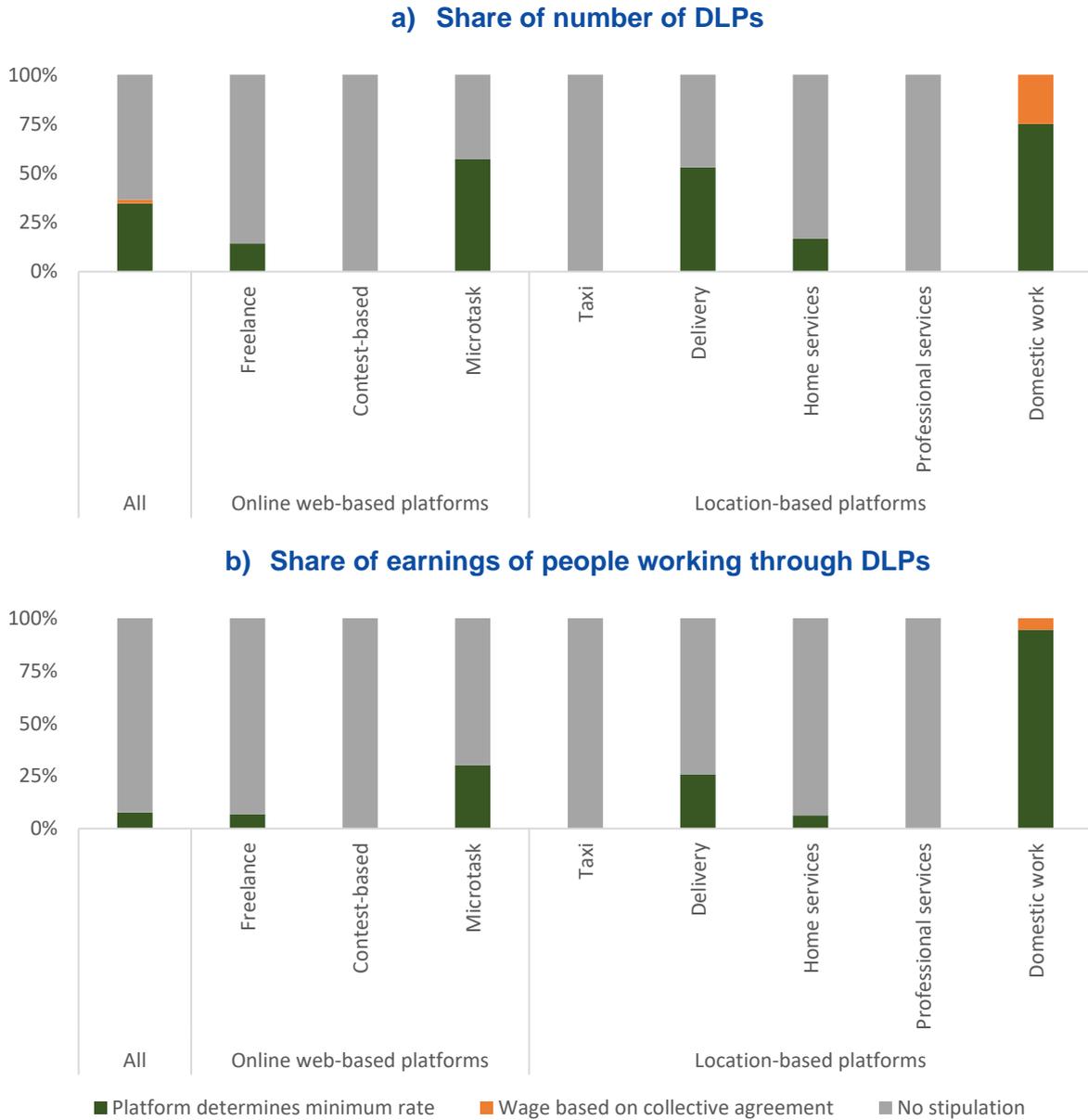
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform determines minimum rate   ■ Wage based on collective agreement   ■ No stipulation

Note: The figure shows whether selected DLPs have a policy relating to earnings of people working through platforms (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

The DLP can also set the frequency with which a worker can withdraw money credited to their account, the threshold at which this is possible and any fee associated with withdrawal. For instance, the analysis of T&Cs showed that many DLPs set times at which funds are disbursed, such as once every month or fortnight. In some cases, funds are only made available if a certain threshold has been reached, or if the client has approved the work. People working through platforms may also be charged for withdrawing money or changing currency, which could further impact their earnings (Rani et al., 2021). All of these factors can lead to earnings being uncertain, unpredictable and delayed, which can have negative consequences for the people working through the platform.

Moreover, non-payment or rejection of work may be significant issues. Some platforms allow clients to reject work deemed unsatisfactory without justification, with the unidirectional flow of information on the platform meaning that workers often cannot even find out why the work was rejected (Rani and Furrer, 2020; Silberman and Johnston, 2020). In an ILO survey, almost nine

out of ten workers on microtask platforms had had work rejected or payment refused (Berg et al., 2018). Of these, 12% stated that all rejections were justifiable. Many workers expressed frustration that they were unable to contest unfair rejections.

In this context, people working through platforms may also lack access to clear channels to appeal such decisions. The analysis revealed a general lack of due process on decisions affecting people working through platforms, which was only available on 13 out of 52 DLPs (25%), accounting for 10% of earnings of people working through platforms (see Figure 43). Due process is understood here to mean a clear appeals process on decisions affecting workers, such as deactivations, penalties and low ratings, as well as access to a human contact point within the DLP to communicate with ([26]). For instance, on the handyman services platform MyHammer and the food delivery platform Wolt in Germany, people working through platforms have direct access to a team addressing all queries. However, on many DLPs, people working through platforms lack access to (human) contact points on these types of decisions, and are also not adequately informed about changes such as amendments to the T&Cs that affect their working conditions. This lack of access to a contact point can significantly affect the working conditions of people working through platforms.

Figure 43 Due process on decisions affecting people working through selected DLPs active in the EU27

a) Share of number of DLPs

---
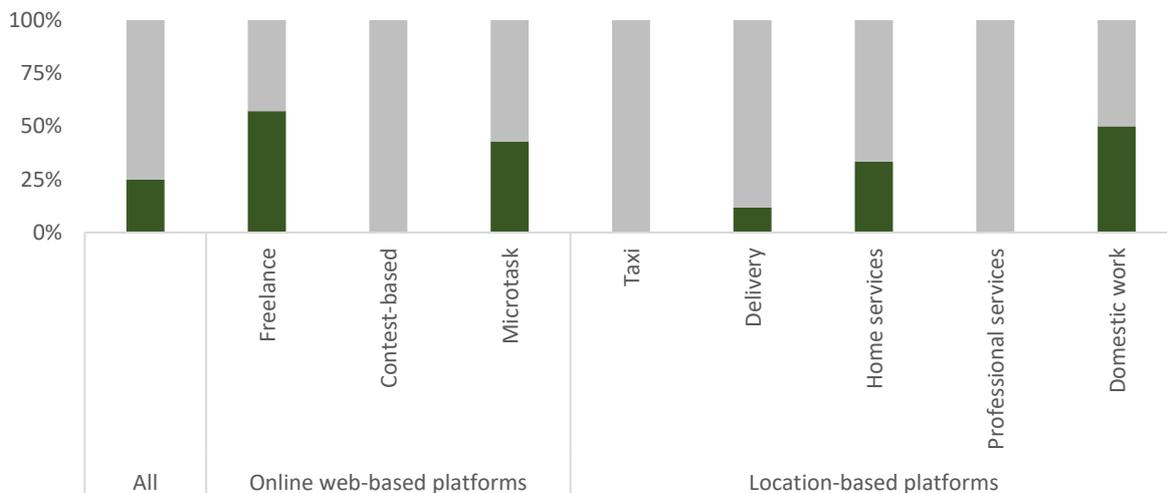
b) Share of earnings of people working through DLPs
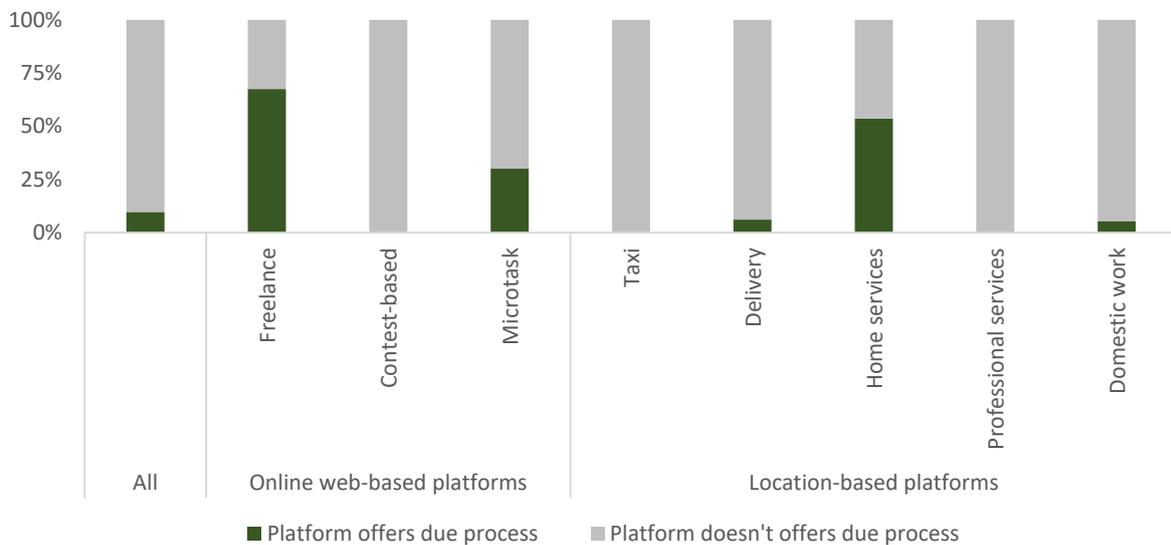
Note: The figure indicates whether selected DLPs offer due process to people working through platforms regarding decisions that affect them (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

An integral part of due process on DLPs is the existence of mechanisms for dispute resolution. However, channels for dispute resolution can be complex or even unavailable for people working through platforms. As set out above, decisions on, for instance, account suspension or termination, are often made by algorithms. If people working through platforms feel that they have been treated unfairly by the algorithm, there is frequently no dispute resolution policy in place (Schmidt, 2017). Often, they have no means of contacting a qualified person to answer a complaint or explain a decision (Silberman and Johnston, 2020). DLPs lack effective dispute resolution mechanisms because they can simply shift the risk of fraudulent behaviour to the worker (Drahokoupil, 2021).

This is confirmed by the data collected on the selected DLPs active in the EU27 (see Figure 44). In the sample analysed, 35 out of 52 DLPs (69%) do not offer any dispute resolution for people working through platforms. Of the DLPs that do offer it, half provide a human contact point to review and reconsider decisions, while the other half provide a dispute resolution process arbitrated by a third party. However, as human review tends to be available on location-based taxi platforms, the estimates based on share of earnings indicate that DLPs that offer human review account for approximately two-thirds of earnings of people working through platforms. Moreover, arbitration mechanisms are more common in certain countries, especially Germany. Germany is an interesting case, as several DLPs have subscribed to a code of conduct that includes an independent arbitration mechanism conducted through the trade union IG Metall (Lenaerts, 2018).

Figure 44 Dispute resolution on selected DLPs active in the EU27
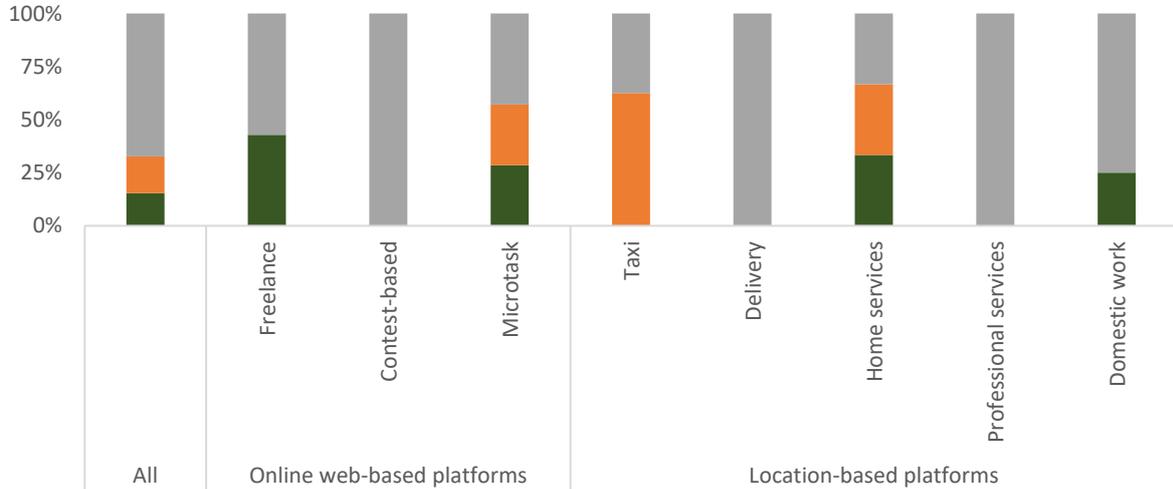
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ No dispute resolution stipulated

■ Human provided to review and reconsider decision

■ Dispute resolution process arbitrated by a third party
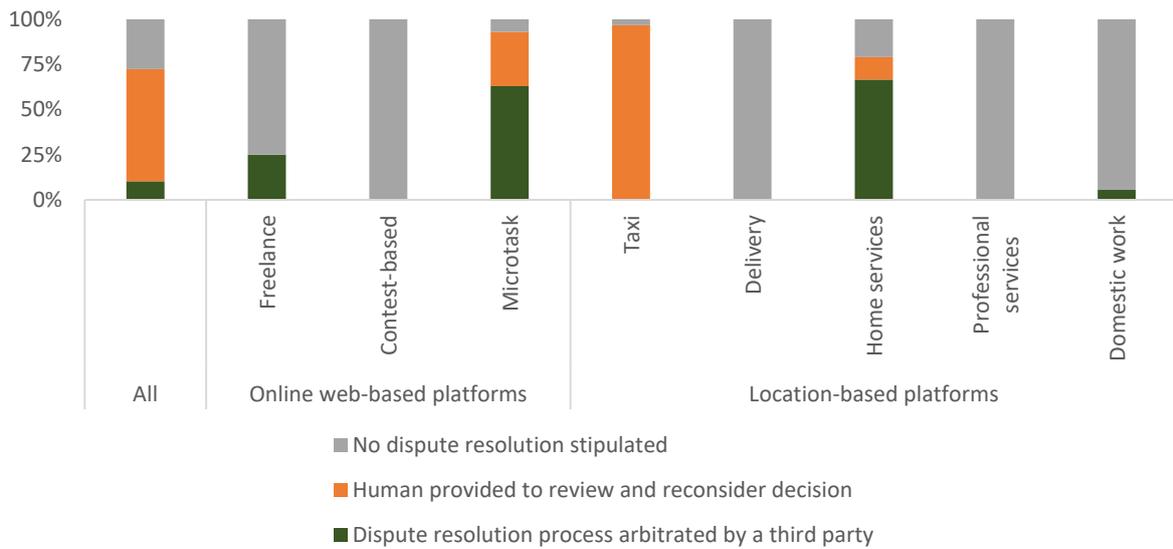
Note: The figure shows whether dispute resolution mechanisms are available on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Issues of dispute resolution become even more problematic when transactions cross national borders and it is not clear which jurisdiction is relevant (Graham, Hjorth and Lehdonvirta, 2017). On the majority of the selected DLPs where a dispute resolution mechanism is available, this takes place in the location where the work was performed (see Figure 45). These DLPs account for more than half of the earnings of people working through platforms. However, for 5 DLPs that offered dispute resolution, the relevant jurisdiction was the location of the DLP headquarters, even when this was not where the work was performed.

Figure 45 Jurisdiction for dispute resolution on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

- Not applicable
- Dispute resolution takes place by definition in jurisdiction in jurisdiction where the work is performed
- Dispute resolution takes place in jurisdiction where the digital labour platform is headquartered but not all the work is performed
- Dispute resolution takes place in jurisdiction where the digital labour platform is headquartered and the work is performed

Note: The figure indicates in which jurisdiction dispute resolution takes place if it is available on the selected DLPs (N=52). 'Not applicable' refers to DLPs that do not offer any dispute resolution mechanism.

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

5.3. Social dimension

Finally, the DLP business model influences the social dimension of working conditions. First, as people working through platforms are often isolated, they face issues in collective organisation (Prassl, 2018). Such difficulties may be particularly acute for people working on online platforms, who are geographically dispersed (Rani et al., 2021). In addition, they may

face resistance from the DLPs themselves, who may try to reject unionisation attempts or argue that collective bargaining is not an appropriate model for people working through platforms (Prassl, 2018). Finally, the national legal context may prove to be a barrier to collective organisation when the people working through platforms are formally self-employed, for instance through conflicts with EU competition law, even if they are economically dependent to a similar degree to employees (Rani et al., 2021).

Of the selected DLPs analysed, virtually all had no stipulation as regards the right of people working through platforms to collectively bargain (see Figure 46). DLPs that lack any stipulation as to collective bargaining mechanisms account for 95% of earnings of people working through platforms. Any DLPs that include an explicit worker voice mechanism are location-based, but these account for only a negligible share of people working through platforms. As such, it does appear that the lack of recognition of collective bargaining rights on the part of DLPs may be a significant obstacle to collective organisation for people working through platforms. Only a minority of DLPs include clear mechanisms for collective representation, though there are some examples. For instance, people working through the Danish cleaning DLP Hilfr are covered by a collective agreement, including an optional transition to employee status.

Moreover, it should be pointed out that the data reflect the official stance of the DLPs on collective representation. Efforts may nevertheless be made by people working through platforms to engage in collective bargaining. For instance, there have been several grassroots efforts by Uber drivers, facilitated by bottom-up initiatives such as UberPeople.net (Lenaerts, Kilhoffer and Akgüç, 2018), though this DLP does not have any stipulation on rights to collective bargaining. Another example is the Turkopticon website, a forum for people working on the platform Amazon Mechanical Turk (Silberman and Irani, 2016). Collective representation involving drivers or bicycle couriers tends to be particularly developed, with several examples of rider organisations such as CLAP (*Collectif des livreurs autonomes de Paris*), which includes riders for DLPs Deliveroo, Foodora and UberEats in Paris. Hence, efforts of people working through platforms to organise collectively, both within the DLP and cross-platform, are ongoing, despite many DLPs not explicitly recognising the right to collective representation.

Figure 46 Collective representation on selected DLPs active in the EU27
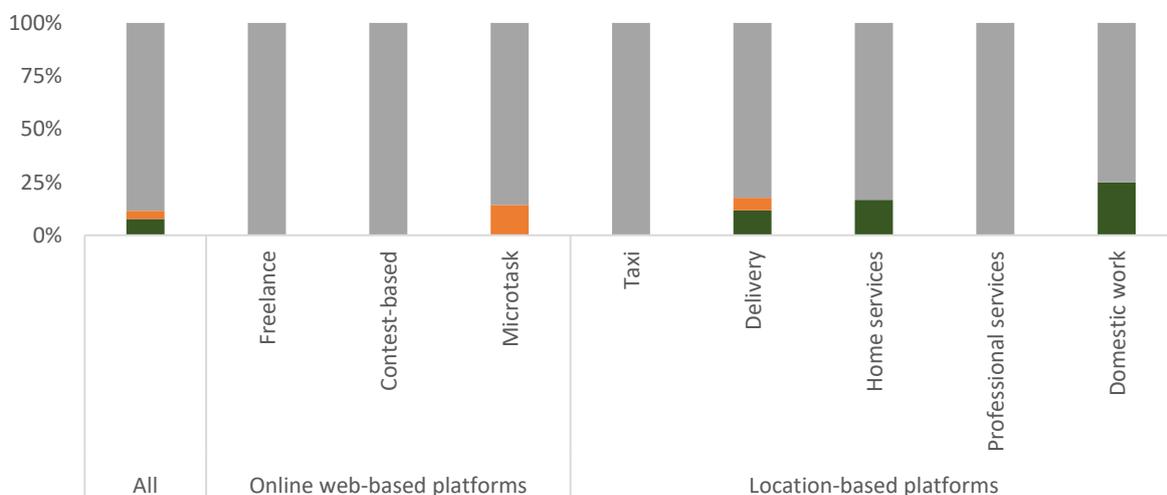
a) Share of number of DLPs

b) Share of earnings of people working through DLPs
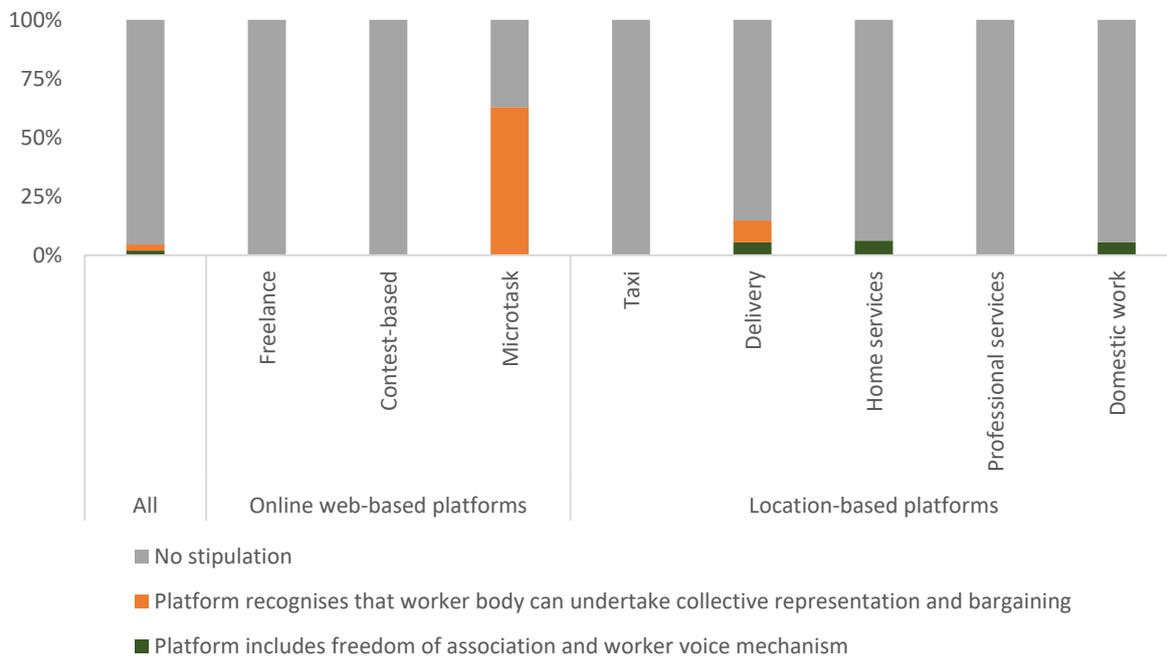
Note: The figure shows whether collective representation mechanisms are available on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

Moreover, platform management can have negative consequences for the social dimension of working conditions in the form of discriminatory decisions. As platform management on many DLPs relies on algorithmic management, as set out above, DLPs risk discriminating against certain people working through the platform if ratings are systematically biased. Users may discriminate by factors such as gender or race (Thebault-Spieker, Terveen and Hecht, 2017) or misunderstand the rating system (Basukie, Wang and Li, 2020). The use of ratings therefore raises questions with regard to the fairness and accuracy of evaluations (Schmidt, 2017).

In addition to discrimination resulting from the use of algorithmic management, people working through platforms may experience discrimination or harassment while carrying out work. Evidence suggests that a considerable proportion of people working through platforms have experienced discrimination and, in the case of on-location services, harassment. This is particularly common among females working through platforms (Rani et al., 2021).

The majority of DLPs do not have any stipulation regarding measures to prevent discrimination and promote equity (see Figure 47). However, figures for the share of earnings show that DLPs with some measures in place to prevent discrimination and promote equity represent approximately two-thirds of the overall earnings of people working through platforms. Most of the DLPs that tend to have a policy against discrimination are taxi platforms. Concrete evidence of prevention of discrimination and promotion of equity was only found on two online web-based platforms, or 4% of the 52 DLPs examined. For instance, the microtasking platform Appen has developed a code of ethics addressing, among other issues, diversity and inclusion, and is a member of the Global Impact Sourcing Coalition to build more inclusive global supply chains.

Figure 47 Measures to prevent discrimination and promote equity on selected DLPs active in the EU27

a) Share of number of DLPs
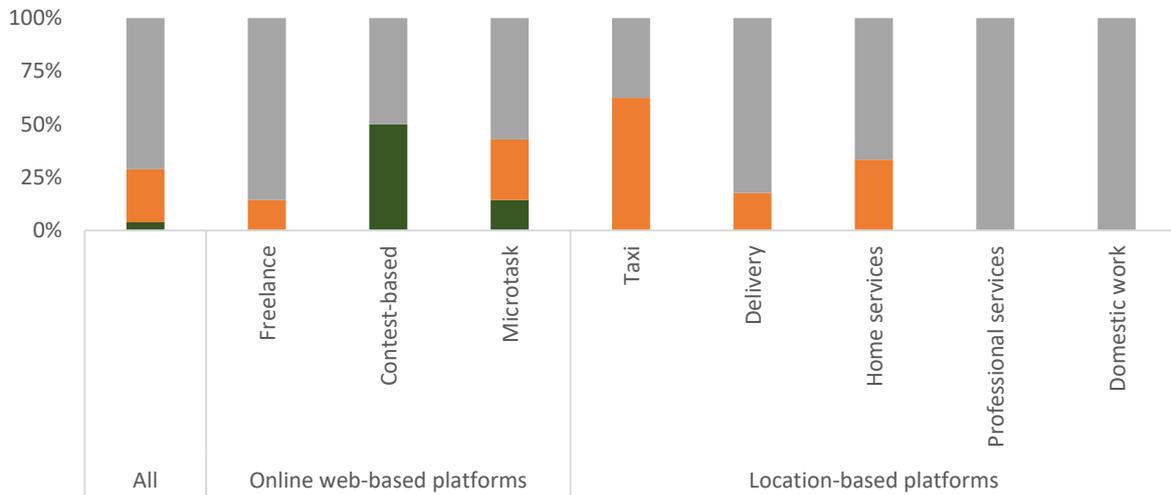
b) Share of earnings of people working through DLPs
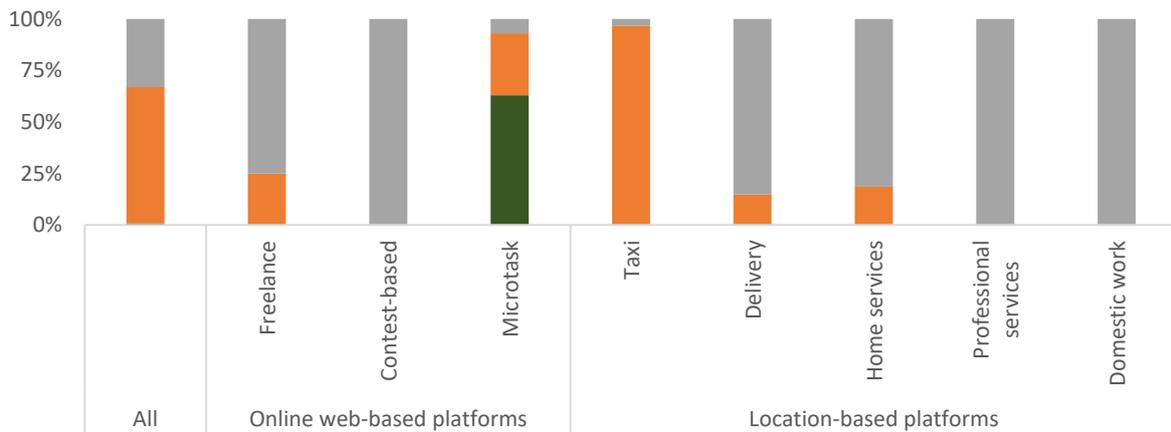
■ No stipulation

■ Some measure to prevent discrimination and promote equity

■ Evidence of preventing discrimination and promoting equity

Note: The figure shows whether selected DLPs have measures to prevent discrimination and promote equity (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27 in 2020.

6. Conclusions

This section draws the main conclusions of the mapping of the DLPs active in the EU27, highlighting the aspects that are most important for working conditions.

The number of DLPs active in the EU27 increased by just over a tenth between late 2015 and early 2021, from approximately 463 at the end of 2015 to 516 in April 2021. In recent years, growth in the number of new DLPs being launched has slowed down significantly. Both the number of newly launched DLPs has decreased and the number of DLPs taken offline has increased. These DLPs were often acquired by other DLPs and merged with the platform of the acquirer, or ceased to exist because the DLP was not viable.

The estimated size of the DLP economy in the EU has increased almost fivefold in the past five years, from an estimated EUR 3 billion in 2016 to about EUR 14 billion in 2020. The majority of activity is due to taxi and food delivery services. Taxi services were dominant between 2016 and 2019, but the COVID-19 pandemic and related social distancing and lockdown measures led to a reduction in taxi services (-35%) and an increase in food delivery (+125%) in 2020. The earnings of people working through platforms have increased by about 2.5 times in the past five years, from an estimated EUR 2.6 billion in 2016 to EUR 6.3 billion in 2020. The relatively limited increase in earnings of people working through platforms is due to the increasing presence of DLPs involving four parties, including restaurants, who receive part of the earnings.

Looking at the DLPs active in the EU27, there are very large differences in their activities and business models in terms of origin, geographical coverage, services intermediated, skills required, delivery of service, selection process, matching form, revenue models and types of clients. The differences are particularly large between different types of intermediated services and required skill level. However, the most prominent DLPs intermediating specific services seem to be converging to similar models, most through M&A activity, collaborations and the adoption of proven models.

Three-quarters of DLPs depend on commissions for their revenues. These are mostly a cut of the payment made by the client to the person delivering the service through the platform, or payment of the fourth party involved in the transaction (such as a restaurant). However, other models require the person delivering the service through the platform to pay, or require the client to pay a subscription fee. Although DLP revenues are mostly linked to the earnings of the people working through the platform (e.g. the platform's commission is a percentage of the price of the service), there are a number of exceptions among the subscription-based revenue models (e.g. people working through the platform pay to have a certain number of client contacts). Under these revenue models, the revenue of the platform is independent from the earnings of the person providing services through the platform.

There are some important specificities of platform work to keep in mind based on the business model characteristics.

First, DLPs frequently require people delivering services on their platform to be registered as self-employed, or at least they do not give them a working agreement. Indeed, the large majority of people working through the selected DLPs are self-employed. In some cases, this might concern bogus self-employment. Though in most countries self-employed people benefit from more flexible working arrangements, they also have less access to social protection, face barriers to collective organisation and have less secure earnings compared to people with a working agreement. In addition, self-employment status also puts the costs of waiting and searching time on the person providing the service.

Second, people delivering the service are directed using algorithmic management. This could reinforce existing or lead to new biases and potentially erroneous decisions. Algorithmic management can reduce autonomy and control, even on those DLPs that only have people

working as self-employed. Moreover, the absence of human interaction complicates potential dispute resolution. This is further hindered by the absence of local presence in the EU27 of most DLPs intermediating online services, and ongoing consolidation of some of the services intermediated by DLPs.

Third, people delivering services through platforms may experience competition between workers. Online services in particular can, in principle, be executed anywhere around the world, including jurisdictions with lower labour costs in or outside the EU.

Fourth, the business models of some on-location DLPs apply employment status or forms of working agreements across countries. Especially in north-west European countries with a strong social dialogue, legal enforcement, domestic platforms and/or a larger presence of on-location platform-directed services, it is more common that people working through platforms are employed by the platform or a related agency. Some of these DLPs offer working agreements to all persons offering services through their platforms, while other DLPs only offer working agreements in some countries and work with self-employed in others.

Fifth, there are some on-location DLPs where the people working through the platform need to pay for the chance of providing a service, rather than the platform taking part of the revenues of completed tasks. These revenue models are most apparent among DLPs intermediating on-location handyman services and online design contests.

Finally, the landscape, business models and working conditions of DLPs have changed significantly since 2015. In fact, about a quarter of DLPs active in the EU27 in March 2021 were launched after 2015. Although developments in this sector are likely to gradually slow down as markets mature, further monitoring is advised as the business models are still evolving.

References

Adams-Prassl, J. (2019) *What if Your Boss Was an Algorithm? The Rise of Artificial Intelligence at Work*. SSRN Scholarly Paper ID 3661151. Rochester, NY: Social Science Research Network. Available at: https://papers.ssrn.com/abstract=3661151.

Basukie, J., Wang, Y. and Li, S. (2020) 'Big data governance and algorithmic management in sharing economy platforms: A case of ridesharing in emerging markets', *Technological Forecasting and Social Change*, 161, p. 120310. doi: 10.1016/j.techfore.2020.120310.

Berg, J. et al. (2018) *Digital labour platforms and the future of work | Towards decent work in the online world*. ILO, p. 157. Available at: www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_645337.pdf.

Brancati, M. C. U., Pesole, A. and Fernandez Macias, E. (2019) *New evidence on platform workers in Europe*. JRC Technical Reports. Joint Research Centre.

Choudary, S. P. (2018) 'The architecture of digital labour platforms: Policy recommendations on platform design for worker well-being', *ILO Future of Work Research Paper*, (3).

De Groen, W.P., and I. Maselli (2016), *The Impact of the Collaborative Economy on the Labour Market*, CEPS Special Report No. 138, Brussels, Centre for European Policy Studies (CEPS).De Groen, W. P. and Kilhoffer, Z. (2019) *Employment and working conditions of selected types of platform work: On-location client-determined moderately skilled work*. Working Paper. Eurofound.

Drahokoupil, J. (2021) 'The business models of labour platforms: creating an uncertain future', in *A Modern Guide to Labour and the Platform Economy*. Cheltenham: Edward Elgar Publishing.

Eslami, M. et al. (2017) '"Be Careful; Things Can Be Worse than They Appear": Understanding Biased Algorithms and Users' Behavior Around Them in Rating Platforms', in *ICWSM*.

EU-OSHA (2017) *Protecting Workers in the Online Platform Economy: An overview of regulatory and policy developments in the EU*. European Risk Observatory Discussion paper. Luxembourg.

Eurofound (2017) *Coordination by platforms - Literature review*. Luxembourg: Publications Office of the European Union.

Eurofound (2018) *Employment and working conditions of selected types of platform work*. Luxembourg: Eurofound, p. 86. Available at: www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef18001en.pdf.

European Commission (2015) *Employment and Social Developments in Europe 2015*. Luxembourg: Publications Office of the European Union. Available at: http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7859&furtherPubs=yes.

European Commission (2016a) *A European agenda for the collaborative economy*. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS COM(2016) 356 final. Brussels. Available at:

https://ec.europa.eu/docsroom/documents/16881/attachments/2/translations/en/renditions/pdf.

European Commission (2016b) *Cross-border workers*, *Taxation and Customs Union - European Commission*. Available at: https://ec.europa.eu/taxation_customs/individuals/personal-taxation/crossborder-workers_en.

European Commission (2017) *Communication on the Mid-Term Review on the implementation of the Digital Single Market Strategy | A Connected Digital Single Market for All*. European Commission. Available at: https://ec.europa.eu/digital-single-market/en/news/digital-single-market-mid-term-review.

European Parliament (2017) 'OPINION of the Committee on Employment and Social Affairs for the Committee on the Internal Market and Consumer Protection on a European agenda for the collaborative economy'.

Fabo, B., Kilhoffer, Z., et al. (2017) 'An Overview of European Platforms: Scope and Business Models'. Luxembourg: Publications Office of the European Union.

Fabo, B., Beblavý, M., et al. (2017) 'Overview of European Platforms: scope and Business Models', *JRC*.

Fabo, B., Karanovic, J. and Dukova, K. (2017) 'In search of an adequate European policy response to the platform economy', *Transfer: European Review of Labour and Research*, 23(2), pp. 163–175. doi: 10.1177/1024258916688861.

Fairwork Foundation (2020) 'Fairwork Germany Ratings 2020: Labour Standards in the Platform Economy'. Available at: https://fair.work/wp-content/uploads/sites/131/2020/11/Germany-English-report-1.pdf.

Foramitti, J., Varvarousis, A. and Kallis, G. (2020) 'Transition within a transition: how cooperative platforms want to change the sharing economy', *Sustainability Science*, 15(4), pp. 1185–1197. doi: 10.1007/s11625-020-00804-y.

Forde, C. et al. (2017) 'The Social Protection of Workers in the Platform Economy'. Available at: www.europarl.europa.eu/RegData/etudes/STUD/2017/614184/IPOL_STU(2017)614184_EN.pdf.

Garben, S. (2019) 'Tackling Social Protection in the Online Platform Economy'. Available at: www.feps-europe.eu/attachments/publications/feps%20paper%20-%20garben%20-%20clean%20final.pdf.

Graham, M., Hjorth, I. and Lehdonvirta, V. (2017) 'Digital labour and development: impacts of global digital labour platforms and the gig economy on worker livelihoods', *Transfer: European Review of Labour and Research*, 23(2), pp. 135–162. doi: 10.1177/1024258916687250.

Griesbach, K. et al. (2019) 'Algorithmic Control in Platform Food Delivery Work', *Socius: Sociological Research for a Dynamic World*, 5, p. 237802311987004. doi: 10.1177/2378023119870041.

Holman, D. (2013) 'Job types and job quality in Europe', *Human Relations*, 66(4), pp. 475–502.

Ice, L., Rieley, M. J. and Rinde, S. (2021) *Employment projections in a pandemic environment : Monthly Labor Review: U.S. Bureau of Labor Statistics*. US Bureau of Labor Statistics. Available at: www.bls.gov/opub/mlr/2021/article/employment-projections-in-a-pandemic-environment.htm.

Kadens, E. (2018) 'The Dark Side of Reputation', *Cardozo L. Rev.*, 40, p. 1995.

Katta, S. et al. (2020) '(Dis)embeddedness and (de)commodification: COVID-19, Uber, and the unravelling logics of the gig economy', *Dialogues in Human Geography*, 10(2), pp. 203–207. doi: 10.1177/2043820620934942.

Kilhoffer, Z. et al. (2020) *Study to gather evidence on the working conditions of platform workers*. DG EMPL.

Lehdonvirta, V. et al. (2020) 'Platformization in Europe', p. 34.

Lenaerts, K. (2018) 'Industrial Relations and Social Dialogue in the Age of Collaborative Economy IRSDACE: Ntional Report Belgium. CEPS Special Report'.

Lenaerts, K., Kilhoffer, Z. and Akgüç, M. (2018) 'Traditional and New forms of Organisation and Representation in the Platform Economy', *Work Organisation, Labour & Globalisation*.

Möhlmann, M. et al. (2020) 'Algorithmic Management of Work on Online Labor Platforms: When Matching Meets Control', *MIS Quarterly*, [forthcoming].

Prassl, J. (2018) *Collective Voice in the Platform Economy: Challenges, Opportunities, Solutions*. Available at: www.etuc.org/sites/default/files/publication/file/2018-09/Prassl%20report%20maquette.pdf.

Rani, U. et al. (2021) *The role of digital labour platforms in transforming the world of work*. Report. International Labour Organization. Available at: www.ilo.org/global/research/global-reports/weso/2021/WCMS_771749/lang--en/index.htm.

Rani, U. and Furrer, M. (2020) 'Digital labour platforms and new forms of flexible work in developing countries: Algorithmic management of work and workers', *Competition & Change*. doi: 10.1177/1024529420905187.

Risak, M. (2017) 'Fair working conditions for platform workers : Possible regulatory approaches at the EU level'. Available at: https://library.fes.de/pdf-files/id/ipa/14055.pdf.

Schmidt, F. A. (2017) *Digital Labour Markets in the Platform Economy: Mapping the Political Challenges of Crowd Work and Gig Work*.

Silberman, M. S. and Irani, L. (2016) *Operating an employer reputation system: lessons from Turkopticon, 2008–2015*. University of California, San Diego (UCSD). Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2729498.

Silberman, S. (2018) *Rights for platform workers*. IG Metall Crowdsourcing Project Discussion Paper.

Silberman, S. and Johnston, H. (2020) *Using GDPR to improve legal clarity and working conditions on digital labour platforms*, *etui*. Available at: www.etui.org/publications/using-gdpr-improve-legal-clarity-and-working-conditions-digital-labour-platforms.

Sundararajan, A. (2017) *The collaborative economy: Socioeconomic, regulatory and policy issues*. In-depth Analysis for the IMCO Committee. Directorate-General for Internal Policies.

Available at: www.eurofound.europa.eu/data/platform-economy/records/the-collaborative-economy-socioeconomic-regulatory-and-policy-issues.

Teubner, T. and Glaser, F. (2018) 'Up or out-The dynamics of star rating scores on Airbnb.', in *ECIS*, p. 96.

Thebault-Spieker, J., Terveen, L. and Hecht, B. (2017) 'Toward a geographic understanding of the sharing economy: Systemic biases in UberX and TaskRabbit', *ACM Transactions on Computer-Human Interaction (TOCHI)*, 24(3), p. 21.

Uber (n.d.) *Minimum Hourly Rates*, *Upwork Help*. Available at: https://support.upwork.com/hc/en-us/articles/211062988-Minimum-Hourly-Rates.

Van Doorn, N. (2017) 'Platform labor: on the gendered and racialized exploitation of low-income service work in the 'on-demand'economy', *Information, Communication & Society*, 20(6), pp. 898–914.

Wilbur, K. C. and Zhu, Y. (2009) 'Click fraud', *Marketing Science*, 28(2), pp. 293–308.

Wood, A. J., Lehdonvirta, V. and Graham, M. (2018) 'Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries', *New Technology, Work and Employment*, 33(2), pp. 95–112.

Zervas, G., Proserpio, D. and Byers, J. (2020) *A First Look at Online Reputation on Airbnb, Where Every Stay is Above Average*. SSRN Scholarly Paper ID 2554500. Rochester, NY: Social Science Research Network. doi: 10.2139/ssrn.2554500.

Zhao, Y. et al. (2020) 'The evolution of platform business models: Exploring competitive battles in the world of platforms', *Long Range Planning*, 53(4), p. 101892. doi: 10.1016/j.lrp.2019.101892.

Glossary

For the purpose of this study, the terms below have the following meaning:

- **People working through platforms** refers to natural persons providing services intermediated with a greater or lesser extent of control via a digital labour platform, irrespective of these people's legal employment status (worker, self-employed or any third-category status). The equivalent term 'platform worker' is only used when quoting official documents containing such a term.

- **Digital labour platform** (DLP) refers to a private internet-based company that intermediates, with a greater or lesser extent of control, on-demand services requested by individual or corporate consumers. The services are provided directly or indirectly by natural persons, irrespective of whether such services are performed in the physical or online world.

- **On-location labour platform** refers to a digital labour platform that only or mostly intermediates services performed in the physical world, such as ride-hailing, food-delivery and household tasks (e.g. cleaning, plumbing and caretaking). This definition is irrespective of the level of skills required to perform such services or held by those people performing the services.

- **Online labour platform** refers to a digital labour platform that only or mostly intermediates services performed in the online world such as programming, AI-training, image tagging, data entry, project design, translation, editing and software development. This definition is irrespective of the level of skills required to perform such services or held by those people performing the services.

- **Working conditions** refers to the conditions in and under which work is performed. A working condition is a characteristic or a combination of characteristics of work that can be modified and improved. This covers matters such as the organisation of work and work activities; pay; training and skills development; health, safety and well-being; and working time and work-life balance.

- **Algorithmic management** means the greater or lesser extent of control exerted by digital labour platforms through automated means over the assignment, performance, evaluation, ranking, review of, and other actions concerning the services provided by people working through platforms.

- **Bogus self-employment** means an employment relationship that is formally classified as one between a contracting entity and a self-employed person, but which in fact is characterised by subordination. Bogus self-employed people are *de facto* employees of their contracting entity.

Annex I. DLPs active in the EU27

The list below indicates the names and countries of origin of the 516 identified DLPs that were active in the EU27 as at March 2021. See the methodology in section 2.1 for more information.

The full database is available here.

Platform name	Country of origin	Platform name	Country of origin
123 Davis	FR	Biclooo	FR
24HourAnswers	US	Bistro.sk	SK
48hourslogo	US	BlackCab	RO
5euros.com	FR	Blacklane	DE
99designs	AU	Bolt	EE
99freelas	BR	Bolt Food	EE
A2ROO	FR	Book a tiger	DE
Abogados365	ES	Botxo Riders	ES
Airtasker	AU	Bpeek	FR
Aiudo	ES	Brandsupply	NL
Aladom	FR	Breizh vélo - Les coursiers bzh	FR
ALK Sabine Slock	BE	Brenger	NL
AlloVoisins	FR	Brigad	FR
Altaopinione.it	UK	Bsit	BE
Alternativa Kuriren	SE	Buymie	IE
Amazon Flex	US	B-visible	BE
Amazon Mechanical Turk	US	Cabify	ES
Animali alla pari	IT	Cammeo	HR
Appen	AU	Cangurosencasa.com	ES
AppJobber	DE	care.com	DE
AppJobs	SE	Careship	DE
applause	US	Chabber	DK
ArtCorgi	US	Charly Cares	NL
Auxillium	BE	Citybird	FR
Avoteca	RO	Clarity.fm	US
Axiom	US	ClassGap	ES
Babysits	NL	Cleanzy	IT
Ba-Click	FR	Cle023 Clevershuttle	DE
Badakan	FR	Clic and Walk	FR
Bark	UK	Click&Care	FR
Beat	EL	Clickworker	DE
BeeFast	FR	Clintu	ES
BEEGO	BE	Codeable	DK
Beeping.si	SI	Codechef	IN
BeMyEye	UK	COGITO	BE
Berlkönig	DE	CO-hive	IT
Betreut.de	DE	ColisWeb	FR
B-HOME CARE	BE		

Platform name	Country of origin	Platform name	Country of origin
Consupermiso	ES	Easyfeel	IT
Content.de	DE	Eduvik	BE
Conyac.cc	JP	efood	EL
Coursier.xyz	FR	Ehrana.si	SI
Coursiers Bordelais	FR	Emprunte mon toutou	FR
Coursiers Nantais	FR	En voiture Simone	FR
Cowash	FR	EncuestasRemuneradas.es	ES
Creads	FR	Envato Studio	AU
Crème de la crème	FR	Eraman	ES
Cronoshare	ES	etaksi	LT
Croqqer	NL	Eurosender	LU
CrowdGuru.de	DE	Exact.ro	RO
Crowdsource	US	Expertcloud	DE
Crowdspring	US	eYeka	FR
Crowdville.net	UK	Familiados	ES
Crowsite	NL	FamiliaFacil	ES
Cuideo	ES	Feedr	UK
Cuidum	ES	Feel à vélo	FR
Cuiper	ES	Fermeria.sk	SK
Cyclôme	FR	Ferpection	FR
Dáme Jídlo	CZ	FieldAgent.net	US
Deliberry	ES	findababysitter.ie	IE
delimiet.be	BE	FindaSurvey.com	UK
deliver.ee	FR	FirstTutors	UK
Deliveroo	UK	Fiverr	IL
Delsuper	ES	FiveSquid	UK
DesignContest	US	Foodchéri	FR
DesignCrowd	AU	Fooddrop	NL
designenlassen.de	DE	FoodNinjas	AT
diagnose.me	NL	Foodora	DE
Didaxis	FR	foodpanda	DE
Dienstencompagnie	BE	Foodracers	IT
Digivante	UK	Foody	CY
Dobby	BE	Foodys.it	IT
DogVacances.fr	FR	Free Now	DE
Domelia.sk	SK	Freelance.nl	NL
Domestico24.es	CH	FreelanceHunt	UA
Domytask	SE	Freelancer	AU
Dones.to	SK	freelanceria	PL
doPrinesi.si	SI	FreeTour	CH
Doučma.sk	SK	Freska	FI
douleutaras.gr	EL	Frizbiz	FR
Dribbble	US	GamerSensei	US
Dweho	FR	Gengo	US

Platform name	Country of origin	Platform name	Country of origin
Gigwalk	US	Infoclases	ES
Glovo	ES	Innocentive	UK
Gofer	FR	Insolvo	EE
GoJob	FR	InStaff	DE
Good Spot	FR	Instapro	IT
Google Opinion Rewards	IE	Irish Opinions	UK
Goopti	SI	Isahit	FR
GoPillar	IT	i-Say	UK
Great Content	DE	itTaxi	IT
GreenPanthera	IT	jadezabiore	PL
Gudog	UK	JAMwerkt	NL
Gun.io	US	Jaspravím	SK
Guru	US	Jellow	NL
GuruWalk	ES	Jextra	BE
Hajtás Pajtás	HU	Jobbi.dk	DK
Handyfaidate	IT	Jobby	IT
HappyHelper.dk	DK	jobdone.net	UK
HARRY BUTLER	BE	Jobinapp	ES
Heetch	FR	JobyPepper	FR
Hello Mums	UK	Jószaki.hu	HU
Helpling	DE	Jovoto	DE
Helpper	BE	Just cargo	NL
Helpy	FR	Just Eat	DK
Het Bijlesbureau	BE	Just Wash	BE
Heykiddo.se	SE	Kaggle	US
Hilfr	DK	Kiwiiz	FR
Hippocura	BE	Klusup	NL
HireWriters	US	KNOWLEDGE- EN TRAININGS CENTRUM	BE
Hiving	US	Kolabtree	UK
Hlidacky	CZ	Kolyma-2	DE
hlprs	NL	Kooglof	FR
Holidog	US	kreanod	HU
Hondenoppas.nl	NL	Kwork	HK
Hop In	SK	L'Observatoire Transfrontalier de la Formation, de l'Éducation et des Services	BE
HOPS	BE		
Howdy Partners	BE		
HUBERT	BE		
Hubstaff talent	US	La Cocotte	FR
Hungry Panda	UK	La Pájara	ES
Hungry.dk	DK	La Poit' à Vélo	FR
HYTCHERS	BE	Lancetalent	ES
iCarry	IT	Lass-andere-schreiben	DE
Idle-empire	DE	Lastmile	LT
Indiez	US	Le Cicogne	IT

Platform name	Country of origin	Platform name	Country of origin
LeCab	FR	MJAM	AT
Legal Dutch	NL	MobEye	FR
Lepermislibre	FR	Moborg	DE
Les Coursiers Montpelliérains	FR	MOFILM	UK
Les Coursiers Rennais	FR	Mojmojster.net	SI
Les Coursiers Stéphanois	FR	Molenbike	BE
Liberprofi.ro	RO	Moolineo	FR
Lidská Síla	CZ	Moovenda	IT
Lieferando	DE	MOPETS	BE
LifePointsPanel	US	Moppi	FI
Liftago	CZ	MoverTransport	DK
Ligue des Familles	BE	Movinga.com	DE
LILLE.BIKE	FR	Mrfix	NL
Lionbridge / The Smart Crowd	US	MY SHERPA	BE
ListMinut	BE	MyHammer	DE
Local Heroes	IE	Mymenu	IT
Local solo	CA	My-Nanny.se	SE
Lolamarket	ES	MyPoppins	ES
Loonea	FR	MyTaxi	DE
Lowpost	ES	Nanny & Butler	UK
Luludansmarue	FR	Nanny Nina	NL
machdudas.de	DE	Naofood	FR
Malt	FR	Napisze prace	PL
MammaPack	IT	NeedHelp	FR
Marketagent	AT	Neobux	PT
Martha	BE	Nerot.fi	FI
MatchAB	NL	NetOpiniões	PT
Meet my mama	FR	NetPincér	HU
Melascrivi	UK	Oferia	PL
mensakas	ES	offerta	SE
MentorDanmark.dk	DK	Oltretata	IT
Meo	PT	Omisli.si	SI
Meploy	DK	Onestaff	FR
MetraCheck	ES	onsite	UK
Mib Clean	FR	OpenClassrooms	FR
Microjob.sk	SK	Opinion Outpost	US
microtask	FI	Opleiding en huiswerkinstituut	BE
Microworkers	US	Optibi	BE
Mila	CH	Ornikar	FR
Milanuncios	ES	Outsorcely	US
millionypu	PL	PanelOpinea	FR
Mis clases particulares	ES	Parlam.es	ES
MIXLE	BE	pass brains	CH
		Pauza	HR

Platform name	Country of origin	Platform name	Country of origin
Pawshake	US	Shippr	BE
PeoplePerHour	UK	Side	FR
Pet Backer	MY	Sir Local	PL
Petbnb	NL	Sitly	NL
Petme	IT	Skyword	US
PickThisUp	NL	SLAAGSLEUTELS	BE
Picoworkers	US	SMART PARK	FR
Pinploy	DK	Smartling	US
PlaCla	CZ	Smartspotter	UK
Planet Interim	NL	SNAU	ES
Podklady.sk	SK	Solutio	BE
Porter Delivery	ES	Solved.fi	SK
PracticeTape	SI	Soshace	RU
Preply	US	SoyFreelancer	SV
Primerjam.si	SI	SPEECH SPLASH	BE
Prolific	UK	Staffme	FR
ProZ	US	Starbytes	IT
Pwiic	BE	StarofService.dm	FR
Pyszne	PL	StarPirates	BE
Qjobs Quality Jobs @ Work	BE	Stomanie	CZ
Quirky	US	Stootie	FR
Rapidusertests	DE	Stovkomat	CZ
RAYON9	BE	StreetBees	UK
RedBubble	AU	Streetspotr	DE
Regional Steunpunt voor Welzijnsbevordering en Sociale Impulsen	BE	Stuart	UK
Rendi	HU	STUDENT ACADEMY	BE
Resonate	IE	StudentPop	FR
Resto Paris	FR	Super Soused	CZ
Rev	US	SuperMano	FR
Roamler	NL	Superprof	FR
Rover.com	US	SupperShare	IT
S!cklo	FR	Surveybee.dk	DK
Sagio	BE	surveysavvy	US
SANDEMANs New Europe	DE	Surveyyeah	IT
Scale AI	US	Svihaj Suhaj	SK
Scribeur	FR	Swagbucks	US
sendoo	SE	Tabbid	IT
Sennder	DE	Takeaway	NL
SerpClix	US	Talixo	DE
Sharing academy	ES	TalkOnlinePanel	AT
ShareYourMeal	NL	TaskHero	NL
Shiply	UK	Taskia	ES
		TaskRabbit	US
		Taskrunner	SE

Platform name	Country of origin	Platform name	Country of origin
Taxibeat	EL	Urb-it	UK
Taxify	EE	UserTesting	US
TeacherOnline	BE	Uwassistent	NL
Temper	NL	VeloConnect	FR
Templafy	DK	Velonto	AT
Testapic	FR	Vengo	BE
TestBirds	DE	ViaVan	NL
TestIO (acquired by EPAM)	DE	Vicker	IT
TextBroker	US	Viedit	NL
TextMaster	FR	Voices	CA
The Photo Academy	BE	Voocali	DK
Threadless	US	vsprace	CZ
Thuisbezorgd	NL	Vtc driver	FR
TidyApp	SE	Wayook	ES
Timeetc	US	Weblancer.net	UA
Titans.sk	SK	Wecasa	FR
Toluna	UK	Weludo	SE
Top Ayuda	ES	Wengo.fr	FR
Top Nanny	ES	WerkSpot	NL
Topcoder	US	Wetasker	LU
Topcontent	MT	Wilio	SK
Toptal	US	WinMinute	FR
TrabajoFreelance	ES	Wirk	FR
Trabeja	ES	With Locals	NL
TrainMe	FR	Wolt	DE
TranscribeMe	US	Workana	AR
Transfluent.fi	FI	WorkGenius	DE
Transformify	UK	Workis.online	LT
Translated	IT	Worksome.dk	DE
Transversal, L'Ecole des Possibles	BE	wpzlecenia	PL
Travaux	FR	Writerscareer	CY
treatwell	UK	Yandex.Taxi	RU
Tring tring	NL	Yappers.club	FR
TRIXXO EXXTRA	BE	Yemeksepeti	TR
Truelancer	US	Yoopies	FR
Tus clases particulares	ES	You2You	FR
Tutorhouse	UK	YouBahn	NL
Twago	DE	YouGenio	IT
Uber	US	Youngones	NL
Uber Direct	US	Youpijob	FR
UberEats	US	ySense	US
Ucompare	IE	Zaask	PT
Upwork	US	Zámpate Zaragoza	ES
Urban Massage	UK	Zazzle	UK

Platform name	Country of origin	Platform name	Country of origin
Zeerk	US	Zomato	IN
Zenjob	DE	Zoofy	NL
ZilverKlus	BE	Zooppa	US
Zolty	ES		

Source: List compiled by authors based on dataset of DLPs active in the EU27.

Annex II. Methodology for determining the size of the DLP economy

In order to get an indication of the size and development of the DLP economy in the EU27 from a labour perspective, a model has been defined to estimate the work involved in the DLPs active in the EU27. This model has been defined to overcome the limitations of the financial reporting data available. In fact, i) turnover information is only provided for about half of the DLPs and is incomplete, ii) the information available includes other activities than those of DLPs active in the EU27, iii) the financial reporting data does not necessarily provide a good indication about the earnings of platform workers, and iv) there is limited data on the work of people providing services intermediated through platforms.

The remainder of this section explains the methodology used to estimate four different indicators for the period 2016 to 2020. A model has been defined to estimate the four indicators based on information on the financials, as well as online activity for all active DLPs in the EU27. The model has been defined to estimate:

- Total size of the DLP economy
- Platform revenues
- Platform worker earnings (excl. platform revenues)
- Fourth-party revenues (excl. commissions and fees to platforms)

The indicators have been defined to only capture the DLP economy activity that takes place in the EU27. On the one hand, this means that of the activities of DLPs, only those that meet the definition of DLP and take place in the EU27 are considered. Activities outside the EU27, or non-DLP activities such as marketplace orders, rental of transportation material, etc. are excluded. On the other hand, the revenues and turnover reported by the DLPs often do not include the revenues of fourth parties and/or platform workers involved, whereas they are relevant to the size of the DLP economy.

In simple terms, the five indicators have been estimated in greater detail for 26 large DLPs for which sufficient information was available to estimate the indicators with limited uncertainty. A selection of nine DLPs function as reference platforms. These DLPs, which have similar business models and similar relations between their economic and online activity, cover eight different types of services (contest-based, delivery, domestic work, freelance, home services, microtask, professional services and taxi) as well as different employment statuses of platform workers (self-employed and work agreement). The methodology for the estimation of individual indicators is explained in detail in Table 1.

The indicators for most of the other approximately 500 active DLPs have been estimated based on their online activity relative to the reference DLP with the same type of services and employment status. More specifically, the reference values are adjusted based on their relative size, presence in the EU27 and difference in growth, and exclude the regional presence of non-DLP activities and that returning customers reduce the search intensity.

Formula for estimation of DLP indicators

$$
\begin{aligned}
DLP\ indicator_t &= Reference\ DLP\ value_t * Size\ adjustment * Regional\ adjustment \\
&\quad * Time\ adjustment_t * Non-DLP\ activities\ adjustment \\
&\quad * Customer\ retention\ adjustment * Turnover\ re-scaling_t
\end{aligned}
$$

The *size adjustment* provides an indication of the relative size of the DLP compared to the reference DLP. The size adjustment is based on the search intensity obtained from Google

Trends for the reference year, which is 2020 for most types of services, except for taxi and professional services for which 2019 served as the reference year, as their activities were disproportionately impacted by COVID-19 due to differences in social distancing measures. The search words are chosen as such that they are likely to capture most searches for the platform and no other searches.

The *region adjustment* provides an indication of the relative presence of the DLP in the EU27 compared to the EU presence of the reference DLP. The regional adjustment is based on the search intensity obtained from Google Trends for the reference year (2016). The trends data provided by country is adjusted for population size, access to internet and GDP per capita, to account for the differences in size and economic importance of the various countries.

The *time adjustment* provides an indication of the relative growth of the DLP compared to the reference DLP. The time adjustment is based on the search intensity obtained from Google Trends for the period 2016 to 2020.

The *non-DLP activities adjustment* provides an indication of the relative importance of the non-DLP activities of the platform compared to the non-DLP activities of the reference DLP. Non-DLP activities include for instance the marketplace function of platforms that also intermediate delivery services, and taxi platforms that also rent means of transportation such as scooters and cars. The adjustment is based on information on the relative importance of these activities according to information obtained from the financial statement.

The *customer retention adjustment* adjusts for the difference in age of the platform. Indeed, a platform that has been around for longer is likely to generate more activity based on the same level of activity. The annual retention adjustment has been calculated based on the average relation between platform revenues and online activity growth. The difference in age has been used to calculate the relative adjustment. The platforms are assumed to have been established no earlier than 2010, as the platform economy was basically non-existent around that time.

The *turnover re-scaling* is used for those DLPs for which the global turnover of the company owning the DLP is available. As many of these companies also cover non-DLP activities in the EU27 (Alphabet, Amazon, Axa, Colruyt, Randstad, WPP, etc.) this re-scaling adjustment ensures that the revenues of the platform are never estimated to be larger than the turnover of the company owning the DLP activities. The turnover re-scaling consists of the ratio between the turnover of the company owning the DLP and the estimated platform revenues.

The same model is used to re-scale the reference indicators for the other active DLPs.

The main assumption underlying this model is that search intensity is a good indicator for the relative activity of a DLP intermediating similar types of services and offering similar employment status for the platform workers involved.

Overall, more than half of the size of the EU DLP economy is estimated based on models tailored to the platform, and the other half is derived from the reference DLPs following the model described above.

Table 1 Methodology for the estimation of DLP indicators for reference DLPs

Type of service	Home services
Employment status	**Self-employed**
Proxy	**MyHammer**
Fourth-party earnings	Not applicable
Platform revenues	Revenues of MyHammer Holding AG for 2016 to 2019. 2020 earnings extrapolated based on earnings growth in first nine months of 2020
Platform worker earnings (excl. platform revenues)	Number of intermediated assignments * average value of assignment - platform costs
	Number of intermediated assignments: Number of assignments posted by clients * share of assignments intermediated. - Number of assignments posted by clients is based on the indicated number of posted assignments in the annual report of MyHammer Holding AG in 2019. The previous years are estimated based on the growth rates provided in the 2017 to 2019 annual reports. The 2020 number of assignments is based on the indicated growth rate for the first nine months of 2020 - Share of assignments intermediated is based on the share of assignments receiving a review as indicated on the website (15%). This is similar to the share of intermediated assignments derived from the scaler in Proeger et al. (2019)
	Average value of assignment: The average value of assignments is estimated at EUR 1 450 per assignment. This value is derived from the total value of assignments posted during a year (EUR 1.4 billion) and the average number of assignments posted by clients during the year (80 000 per month) as indicated by MyHammer to Proeger et al. (2019)
	Platform costs are equal to the platform revenues (see *platform revenues*)
Total DLP economy contribution	Platform revenues + platform worker earnings (excl. platform revenues)
	Platform revenues (see *Platform revenues*)
	Platform worker earnings (excl. platform revenues) (see *Platform worker earnings (excl. platform revenues)*)

Type of service	Home services
Employment status	Work agreement
Proxy	MyHammer (adjusted)
Fourth-party earnings	Not applicable
Platform revenues	Platform revenues + platform worker earnings
	Platform revenues (see *MyHammer - platform revenues*)
	Platform worker earnings (excl. platform revenues) (see *MyHammer - platform worker revenues*)
Platform worker earnings (excl. platform revenues)	See *MyHammer - platform worker revenues*
Total DLP economy contribution	See *MyHammer - total DLP economy contribution*
Type of service	Freelance
Employment status	Self-employed
Proxy	Fiverr International Ltd. (Fiverr)
Fourth-party earnings	Not applicable
Platform revenues	Revenues * share of EU27 * EUR-USD exchange rate
	Revenues of Fiverr are obtained from the financial statements of Fiverr International Ltd for 2017 to 2020 and extrapolated to 2016
	Extrapolation of revenues for 2016 is calculated estimating the gross merchandise value (GMV) multiplied by the take rate. The GMV is the main driver of Fiverr's revenues. It can be calculated using the active buyers multiplied by spending per buyer. The number of active buyers is calculated assuming the same growth rate of active clients in 2016 as in 2017, while the spending per buyer is provided in the prospectus and other documentation of Fiverr. The take rate is assumed to have increased at a similar rate in 2016 to in 2017 and 2018
	The share of revenues originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank
	The platform revenues are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Platform worker earnings (excl. platform revenues)	((GMV * share of EU27) – platform revenues) * EUR-USD exchange rate
	GMV of Fiverr is obtained from the financial statements of Fiverr International Ltd for 2017 to 2020 and extrapolated to 2016

	The GMV is calculated using the number of active buyers multiplied by spending per buyer. The number of active buyers is calculated assuming the same growth rate of active clients in 2016 as in 2017, while the spending per buyer is provided in the prospectus and other documentation of Fiverr
	The *share of the GMV* originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank
	Platform worker earnings (see Fiverr - *platform revenues*)
	The platform revenues are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	Platform revenues + platform worker earnings (excl. platform revenues)
	Platform revenues (see *Platform revenues*)
	Platform worker earnings (excl. platform revenues) (see *Platform worker earnings (excl. platform revenues)*)
Type of service	**Contest-based**
Employment status	**Self-employed**
Proxy	**Redbubble**
Fulfiller earnings	Fulfiller expenses * share of EU * EUR-USD exchange rate
	Fulfiller expenses as indicated in the financial statements of Redbubble Limited
	Share of EU is based on the share of the EU in gross transaction value, as the share in revenues is not provided for the EU (unlike other geographies, for which the share in gross transaction value is fairly similar to the share in revenues). It is assumed that the revenues are a good proxy for fulfilment costs
	The fulfiller expenses are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Platform revenues	Platform revenues * share of EU * EUR-USD exchange rate
	Total revenues as indicated in the financial statements of Redbubble Limited
	Share of EU is based on the share of the EU in gross transaction value, as the share in revenues is not provided for the EU (unlike other geographies, for which the share in gross transaction value is fairly similar to the share in revenues)

	The revenues are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Platform worker earnings	Platform worker expenses * share of EU * EUR-USD exchange rate
	Total platform worker expenses are proxied by 'Payments to artists' in 2016 to 2018 and the 'Artist Revenue' in 2019 and 2020 as indicated in the financial statements of Redbubble Limited
	Share of EU is based on the share of the EU in gross transaction value, as the share in revenues is not provided for the EU (unlike other geographies, for which the share in gross transaction value is fairly similar to the share in revenues). In the absence of information on the location of the workers, it is assumed that the platform workers' earnings are distributed similarly to the revenues
	Worker expenses are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	See *Platform revenues*
Type of service	**Delivery**
Employment status	**Self-employed**
Proxy	**Uber eats**
Fourth-party earnings (after commissions)	Gross bookings * share of restaurants * share of EU * EUR-USD exchange rate
	Restaurant earnings are proxied by the global gross bookings of Uber eats as indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations. The gross bookings include potential value added tax and potential other non-commission fees
	The share of the bookings that the restaurants take is estimated at 70%. This accounts for the commission that Uber charges for deliveries. Uber charges restaurants 30% for delivery, which forms the large majority of the transactions (restaurants are charged 15% for marketplace transactions)
	Share of EU is based on the share of the EU in gross bookings of Uber eats, as the share in gross bookings is not provided for the EU. The share of revenues originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank. The

	share for the EU27 has then been rescaled to ensure that the underlying gross bookings for Uber eats and Uber (rides) are aligned with the share of Europe, Middle East and Africa (EMEA) in the total revenues
	Gross booking values are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Platform revenues	Revenues * share of EU27 * EUR-USD exchange rate
	Revenues of Uber eats are based on the gross revenues as indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations
	Share of EU27 is based on the share of the EU in gross revenues of Uber eats, as the share in gross bookings is not provided for the EU. The share of revenues originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank. The share for the EU27 has then been rescaled to ensure that the underlying gross bookings for Uber eats and Uber (rides) are aligned with the EMEA share of the total revenues
	The platform revenues are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Platform worker earnings	((Gross bookings * commission) – earnings platform + additional compensation platform workers) * share of EU * EUR-USD exchange rate
	Global gross bookings of UberEats as indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations. Gross bookings include potential value added tax
	Uber charges restaurants 30% for delivery, which is distributed between the platform and the platform workers
	Revenues of UberEats from commission are indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations
	Additional payments made by UberEats to platform workers are from the revenues indicated in the financial statements of Uber

	Technologies, Inc., the prospectus and Uber Technologies investor presentations
	Share of EU is based on the share of the EU in the revenues of Uber eats, as the share in gross bookings is not provided for the EU. The share of revenues originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank. The share for the EU27 has then been rescaled to ensure that underlying gross bookings for Uber eats and Uber (rides) are aligned with the EMEA share of the total revenues
	Platform worker earnings are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	Fourth-party earnings + platform revenues + platform worker earnings corrected for additional payments from the platform
	See *fourth-party earnings*
	See *platform revenues*
	See *platform worker earnings* excl. additional compensation for platform workers
Type of service	**Delivery**
Employment status	**Work agreement**
Proxy	**Thuisbezorgd (Dutch activities of Just Eat Takeaway)**
Fourth-party earnings (after commissions)	Gross merchandise value * share of delivery orders * share of restaurants
	Restaurant earnings are proxied by the gross merchandise value (GMV) of Thuisbezorgd, i.e. total value of merchandise (food) sold. The GMV of Thuisbezorgd is obtained from the financial statements of Just Eat Takeaway.com N.V., TakeAway investor presentations and earnings announcements
	Thuisbezorgd offers both marketplace orders (intermediating between clients and restaurants) and delivery orders (providing the delivery of the orders). The former traditionally forms the majority of Thuisbezorgd's orders. The share of delivery orders is obtained from the financial statements of Just Eat Takeaway.com N.V., TakeAway investor presentations and earnings announcements. It is assumed that the average value of delivery orders is equal to that of marketplace orders, as TakeAway

	indicates that the value is similar for both marketplace and delivery orders
	Thuisbezorgd charges restaurants 30% for delivery orders
Platform revenues	(Fourth-party earnings (before commissions) * commissions) / share of commission revenues
	See *Fourth-party earnings (after commissions)* excluding share of restaurant adjustment
	Thuisbezorgd charges restaurants 30% commission for delivery orders
	Thuisbezorgd obtains most of its revenues from commissions, but also obtains revenues from other services such as online payment services, sales of merchandise and packaging to restaurants and placement fees. The share of commission revenues in total revenues are adjusted for these additional revenues. The share of delivery orders is obtained for Just Eat TakeAway in the absence of details for its subsidiary Thuisbezorgd. The information on the share of revenues is obtained from the financial statements of Just Eat Takeaway.com N.V., Just Eat Takeaway.com investor presentations and earnings announcements
Platform worker earnings	Personnel costs for couriers * share of couriers * wage adjustment
	The personnel costs for couriers cover wages and salaries, social charges and premiums and temporary staff expenses. These costs are obtained for Just Eat Takeaway.com from the financial statements of Just Eat Takeaway.com N.V., Just Eat Takeaway.com investor presentations and earnings announcements
	The share of couriers working for Thuisbezorgd is determined to the share of couriers in terms of FTE working for Thuisbezorgd as the share of the total number of couriers of Just Eat Takeaway.com. The number of FTEs are obtained from the financial statements of Just Eat Takeaway.com N.V.
	The wage costs across countries are adjusted for the differences in wages. The wages are proxied using the estimated hourly labour costs (2019) obtained from Eurostat
Total DLP economy contribution	Fourth-party earnings (after commissions) + platform revenues

	See *fourth-party earnings (after commissions)*
	See *platform revenues*
Type of service	**Delivery**
Employment status	**Self-employed**
Proxy	**Deliveroo**
Fourth-party earnings (after commissions)	((Revenues / Commissions) * (1-Commissions)) * share of EU * EUR-GBP exchange rate
	Revenues are obtained from the financial statements and prospectus of Roofoods Ltd
	The share of commissions is determined based on the share of revenues as part of the gross transaction value, as provided in the prospectus of Roofoods Ltd for the period between 2018 and 2020. The gross transaction value includes potential value added tax and potential other non-commission fees. For the years 2016 and 2017, the average revenues to gross transaction values of the period 2018 to 2020 are applied
	Deliveroo was launched in 2013 in the UK, and since 2015 has also been active in other countries. It is now active in 10 countries, including Belgium, France, Germany, Ireland, Italy, the Netherlands and Spain in the EU27. The share of EU revenues is determined for 2018 and 2019 taking the difference in revenues between Europe and the UK and Ireland, plus the revenues for Ireland. The information is obtained from the financial statements and prospectus of Roofoods Ltd and financial statements of Deliveroo Ireland Ltd. The shares of the EU27 revenues in the other years are based on the growth of revenues in the rest of the world, which started around the same time. It assumes that the EU activities grew at the same pace as in the rest of the world (outside the UK and Ireland and outside Europe respectively)
	Restaurant revenues are translated into EUR using the annual average GBP-EUR exchange rates as provided by Eurostat
Platform revenues	Revenues * share of EU * EUR-GBP exchange rate
	Revenues are obtained from the financial statements and prospectus of Roofoods Ltd
	The share of EU revenues is determined for 2018 and 2019 taking the difference in revenues between in Europe and the UK and Ireland, plus the revenues for Ireland. The information is obtained from the

	financial statements and prospectus of Roofoods Ltd and financial statements of Deliveroo Ireland Ltd. The shares of the EU27 revenues in the other years are based on the growth of revenues in the rest of the world, which started around the same time. It assumes that the EU activities grew at the same pace as the rest of the world (outside the UK and Ireland and outside Europe respectively)
	Platform revenues are translated into EUR using the annual average GBP-EUR exchange rates as provided by Eurostat
Platform worker earnings	Costs of goods sold * share of platform workers earnings * share of EU * EUR-GBP exchange rate
	Costs of goods sold are obtained from the financial statements and prospectus of Roofoods Ltd
	Platform worker earnings as a share of total costs of goods sold are determined based on the latest (2019) similar ratio for Just Eat Takeaway.com N.V., which conducts similar activities
	The share of EU revenues is determined for 2018 and 2019 taking the difference in revenues between in Europe and the UK and Ireland, plus the revenues for Ireland. The information is obtained from the financial statements and prospectus of Roofoods Ltd and financial statements of Deliveroo Ireland Ltd. The shares of the EU27 revenues in the other years are based on the growth of revenues in the rest of the world, which started around the same time. It assumes that the EU activities grew at the same pace as the rest of the world (outside the UK and Ireland and outside Europe respectively)
	Platform worker earnings are translated into EUR using the annual average GBP-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	Fourth-party earnings (after commissions) + Platform revenues
	See *fourth-party earnings (after commissions)*
	See *platform revenues*
Type of service	**Taxi**
Employment status	**Self-employed**
Proxy	**Uber (rides)**
Fourth-party earnings	Fourth-party earnings are not estimated for Uber as these earnings, such as car leasing costs, do not form part of the platform transaction as such

Platform revenues	Revenues of Uber (rides) * share of EU27 * EUR-USD exchange rate
	Revenues of Uber (rides) are based on the gross revenues as indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations
	Share of EU27 is based on the share of the EU in gross revenues of Uber (rides), as the share in gross bookings is not provided for the EU. The share of revenues originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank. The share for the EU27 has then been rescaled to ensure that the underlying gross bookings for Uber (rides) and Uber eats are aligned with the EMEA share of the total revenues
	The platform revenues are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Platform worker earnings	(Gross bookings – earnings platform + additional compensation for riders) * share of EU27 * EUR-USD exchange rate
	Global gross bookings of Uber (rides) are indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations. Gross bookings include potential value added tax
	Revenues of Uber (rides) from commission are indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations
	Additional payments made by Uber (rides) to platform workers are from the revenues indicated in the financial statements of Uber Technologies, Inc., the prospectus and Uber Technologies investor presentations
	Share of EU27 is based on the share of the EU in revenues of Uber (rides), as the share in gross bookings is not provided for the EU. The share of revenues originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank. The share for the EU27 has then been rescaled to ensure that the underlying gross

	bookings for Uber (rides) and Uber eats are aligned with the EMEA share of the total revenues
	Platform worker earnings are translated into EUR using the annual average USD-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	Platform revenues + platform worker earnings corrected for additional payments to platform workers
	See *platform revenues*
	See *platform worker earnings* excl. additional compensation of platform workers
Type of service	**Professional services**
Employment status	**Self-employed**
Proxy	**Temper**
Fourth-party earnings	Not applicable
Platform revenues	Number of intermediated hours * commission per hour
	Number of intermediated hours are estimated per month based on indications of the platform in press releases and interviews. For 2020, the number of transactions is estimated considering the end-2019 level and intensity of the lockdown measures
	Commission per hour is fixed at EUR 3
Platform worker earnings	Number of intermediated hours * average earnings per hour
	Number of intermediated hours are estimated per month based on indications of the platform in press releases and interviews. For 2020, the number of transactions is estimated considering the end-2019 level and intensity of the lockdown measures
	Average earnings per hour are, according to Temper, equal to about EUR 17
Total DLP economy contribution	Platform revenues + platform worker earnings
	See *platform revenues*
	See *platform worker earnings*
Type of service	**Professional services**
Employment status	**Work agreement**
Proxy	**Temper (adjusted)**
Fourth-party earnings	Not applicable
Platform revenues	Number of intermediated hours * (average earnings per hour + commission per hour)
	Number of intermediated hours are estimated per month based on indications of the platform in press releases and interviews. For 2020, the number of transactions is estimated considering the

	end-2019 level and intensity of the lockdown measures
	Average earnings per hour are, according to Temper, equal to about EUR 17
	Commission per hour is fixed at EUR 3
Platform worker earnings	See *Temper – platform worker earnings*
Total DLP economy contribution	See *platform revenues*
Type of service	**Home services**
Employment status	**Self-employed**
Proxy	**Happy Helper**
Fourth-party earnings	Not applicable
Platform revenues	Gross platform turnover * EUR-DKK exchange rate
	The gross platform turnover of Happy Helper is, for the period 2017 to 2020, determined based on the monthly published key figures obtained from Happy Helper A/S. The gross platform turnover in the missing months is interpolated assuming a linear development. Similarly, for the estimation of 2016 revenues, it is assumed that the same growth rates apply as in 2017
	The platform turnover is translated into EUR using the annual average DKK-EUR exchange rates as provided by Eurostat
Platform worker earnings	(Gross transaction value – platform revenues) * EUR-DKK exchange rate
	The gross transaction value of Happy Helper is, for the period 2017 to 2020, determined based on the monthly published key figures obtained from Happy Helper A/S. The gross transaction value in the missing months is interpolated assuming a linear development. Similarly, for the estimation of 2016 revenues, it is assumed that the same growth rates apply as in 2017
	See *platform revenues*
	Platform worker earnings are translated into EUR using the annual average DKK-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	Platform revenues + Platform worker earnings
	See *platform revenues*
	See *platform worker earnings*
Type of service	**Home services**
Employment status	**Work agreement**
Proxy	**Happy Helper (adjusted)**
Fourth-party earnings	Not applicable
Platform revenues	Gross transaction value * EUR-DKK exchange rate
	The gross transaction value of Happy Helper is, for the period 2017 to 2020, determined based on the monthly published key figures obtained from Happy Helper

	A/S. The gross transaction value in the missing months is interpolated assuming a linear development. Similarly, for the estimation of 2016 revenues, it is assumed that the same growth rates apply as in 2017
	The platform revenues are translated into EUR using the annual average DKK-EUR exchange rates as provided by Eurostat
Platform worker earnings	(Gross transaction value – platform revenues) * EUR-DKK exchange rate
	The gross transaction value of Happy Helper is, for the period 2017 to 2020, determined based on the monthly published key figures obtained from Happy Helper A/S. The gross transaction value in the missing months is interpolated assuming a linear development. Similarly, for the estimation of 2016 revenues, it is assumed that the same growth rates apply as in 2017
	See *platform revenues*
	Platform worker earnings are translated into EUR using the annual average DKK-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	See *platform revenues*
Type of service	**Microtask**
Employment status	**Self-employed**
Proxy	**Appen**
Fourth-party earnings	Not applicable
Platform revenues	Revenues * share of EU27 * EUR-AUD exchange rate
	Revenues of Appen are obtained from the financial statements of Appen Limited for the period 2016 to 2020
	The share of revenues originating from work performed in the EU27 is based on the Google Trends search intensity adjusted for population size, share of population using the internet and GDP per capita obtained from the World Bank. It assumes that revenues related to the platform work are allocated to the respective geographical area
	Platform revenues are translated into EUR using the annual average AUD-EUR exchange rates as provided by Eurostat
Platform worker earnings	Data collection costs * share of EU27 * EUR-AUD exchange rate
	Data collection costs ('services purchased – data collection') of Appen are obtained from the financial statements of Appen Limited for the period 2016 to 2020
	The share of data collection costs in the EU27 is based on the Google Trends search intensity adjusted for population

	size, share of population using the internet and GDP per capita obtained from the World Bank
	Platform worker earnings are translated into EUR using the annual average AUD-EUR exchange rates as provided by Eurostat
Total DLP economy contribution	See *platform revenues*

Annex III. Business models and working conditions – Eurofound typology

Figure 48 Autonomy in allocation of tasks on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Low   ■ Medium   ■ High
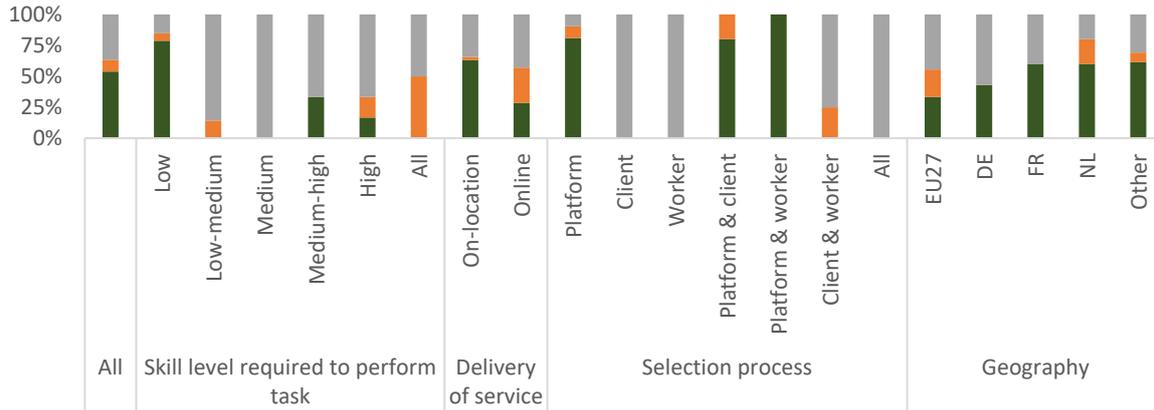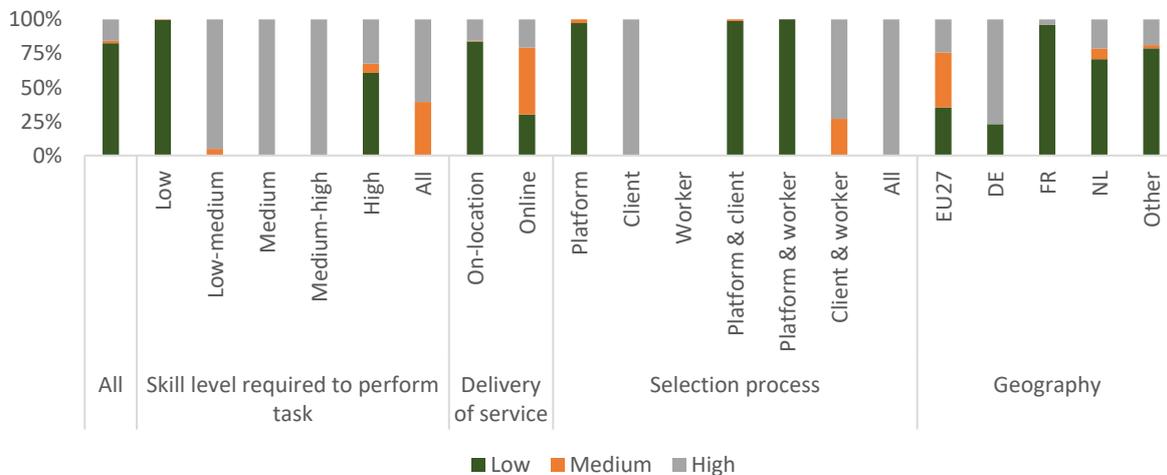
Note: The figure shows which party is responsible for the allocation of tasks (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks, as the total earnings of people working through these platforms were estimated to be insignificant.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 49 Direction on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Direction from platform   ■ Direction from client

■ Direction partially from client and partially platform   ■ No stipulation

Note: The figure shows from whom people working through platforms receive direction on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks, as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 50 Mitigation of physical risks on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform actively improves working conditions ■ Platform mitigates task-specific risks

■ Platform has no stipulation

Note: The figure shows whether and what kind of policies aimed at mitigating physical risks associated with platform work are stipulated on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks, as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 51 Surveillance on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Some form of surveillance by platform ■ Some form of surveillance by client
■ Surveillance by both client and platform ■ Some surveillance from other party
■ No surveillance

Note: The figure shows whether and by whom people working through platforms are overseen while carrying out tasks on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks, as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 52 Appraisal of people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Legend: ■ Platform ■ Clients ■ Both clients and platform ■ Co-workers

Note: The figure shows whether and by whom people working through platforms are appraised after carrying out tasks on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks, as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 53 Appraisal of clients on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Note: The figure shows whether people working through platforms are able to appraise clients on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 54 Proportion of people working as employees on selected DLPs active in the EU27
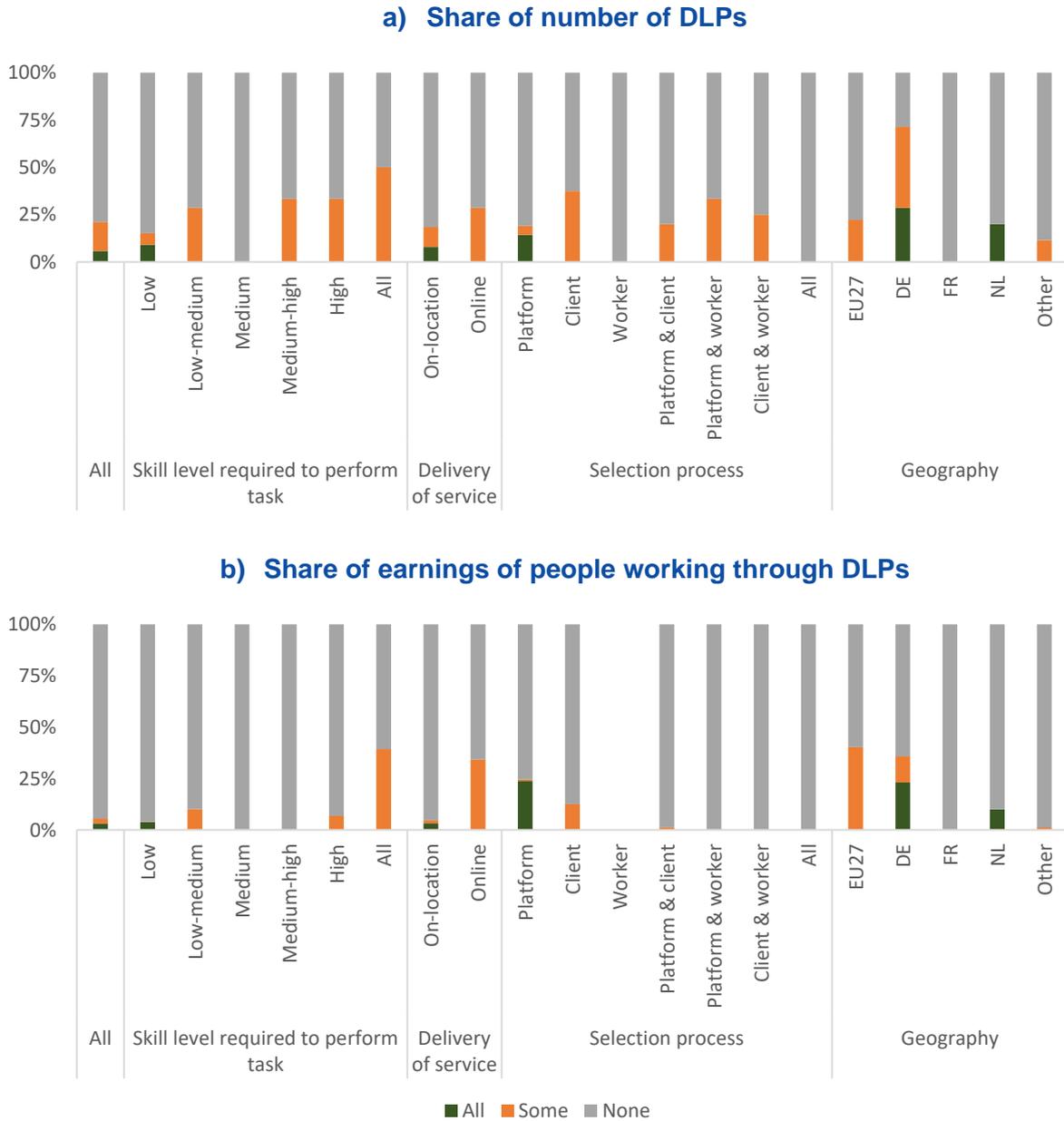
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Note: The figure shows the employment status of people working through platforms on the selected DLPs (N=52). 'All' indicates that the platforms employs all people working through it, 'some' indicates that it employs some, 'none' indicates that none are employed. For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 55 Identity of employer on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs
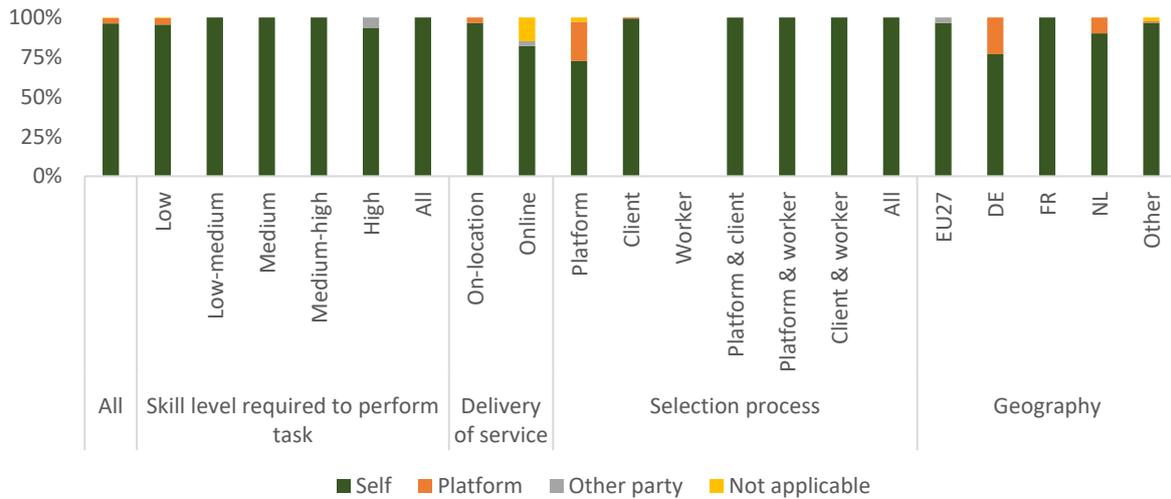
Note: The figure identifies the employer of people working through platforms on the selected DLPs (N=52). For platforms with several types of employers, the most common one is indicated. For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 56 Access to unemployment benefits for people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Note: The figure shows whether people working through platforms have access to unemployment benefits on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 57 Access to accident and occupational injuries insurance for people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Accident and occupational injuries insured ■ Accident and occupational injuries not insured

Note: The figure shows whether people working through platforms have access to accident and occupational injuries insurance on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 58 Working time for people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Locked into agreed working time   ■ Free to choose or change working time
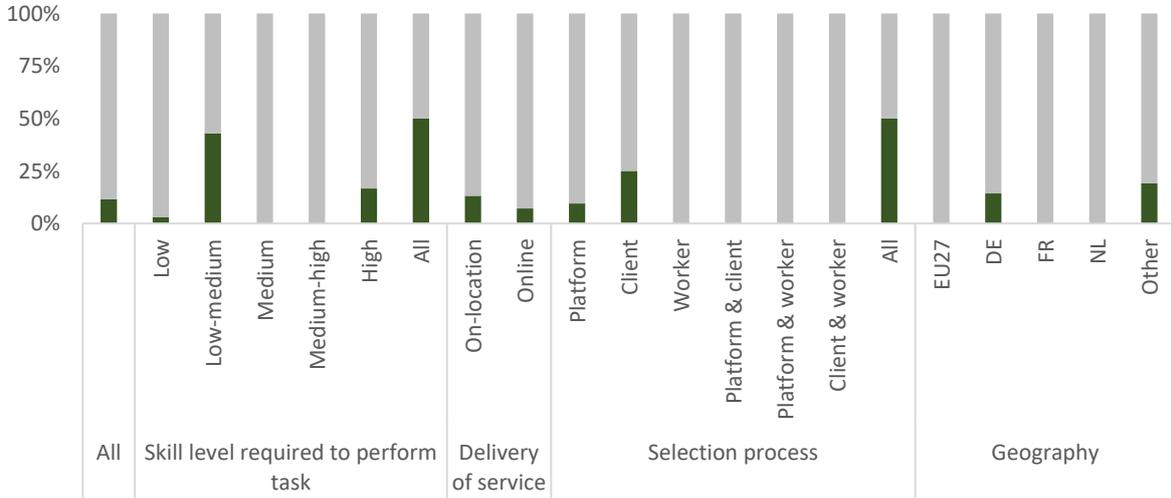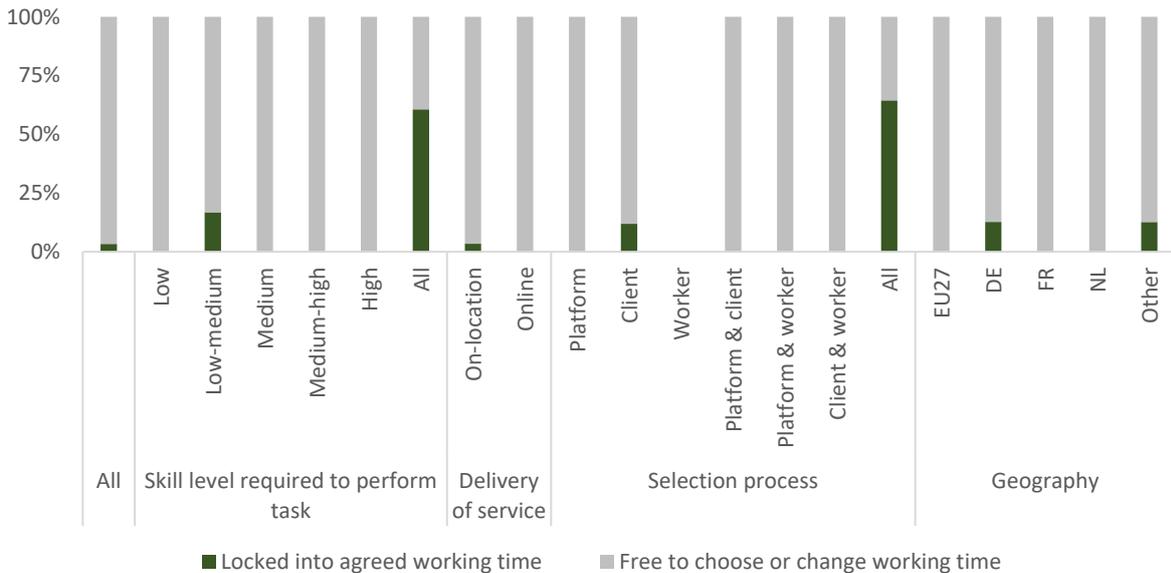
Note: The figure shows whether terms and conditions are publicly available on the selected DLPs (N=52). 'Terms and conditions' refers to the public availability of T&Cs that address the person working through the platform. They reflect the relationship with the worker if they explicitly address and accurately reflect what the employment relationship between the DLP and the person working through the platform is. For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker selected tasks as the total estimated earnings of people working through DLPs for these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 59 Contracts on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Terms and conditions   ■ Terms and conditions reflecting relation with platform worker   ■ No stipulation

Note: The figure shows whether terms and conditions are publicly available on the selected DLPs (N=52). 'Terms and conditions' refers to the public availability of T&Cs that address the person working through the platform. They reflect the relationship with the worker if they explicitly address and accurately reflect the employment relationship between the DLP and the person working through the platform. For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total estimated earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 60 Dismissal and deactivation notices on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Dismissal and deactivation notice stipulated ■ Dismissal and deactivation notice not stipulated

Note: The figure indicates whether dismissal and deactivation notices are stipulated on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 61 Earnings of people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform determines minimum rate ■ Wage based on collective agreement ■ No stipulation
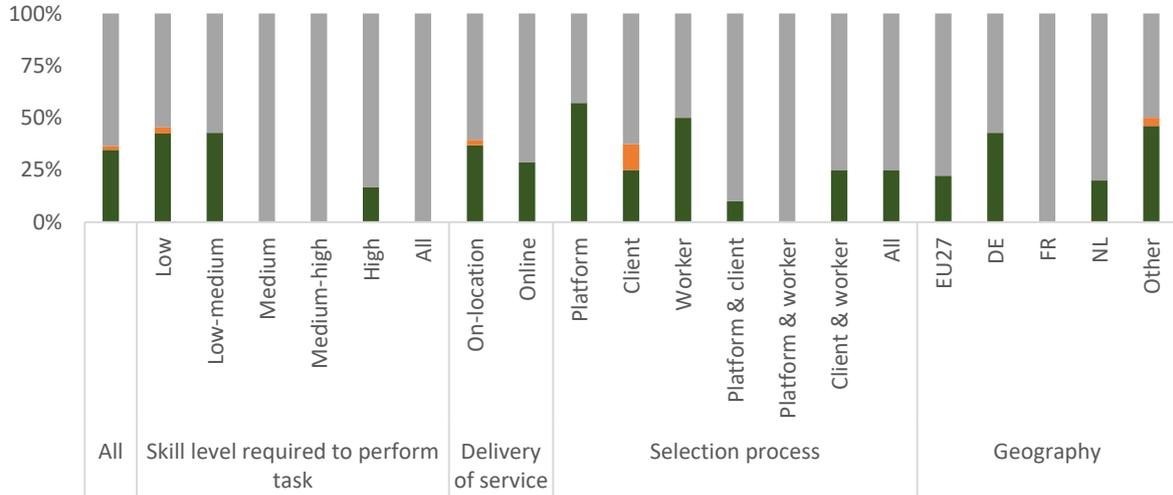
Note: The figure shows whether selected DLPs have a policy relating to earnings of people working through platforms (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total estimated earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 62 Due process on decisions affecting people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform offers due process   ■ Platform doesn't offers due process
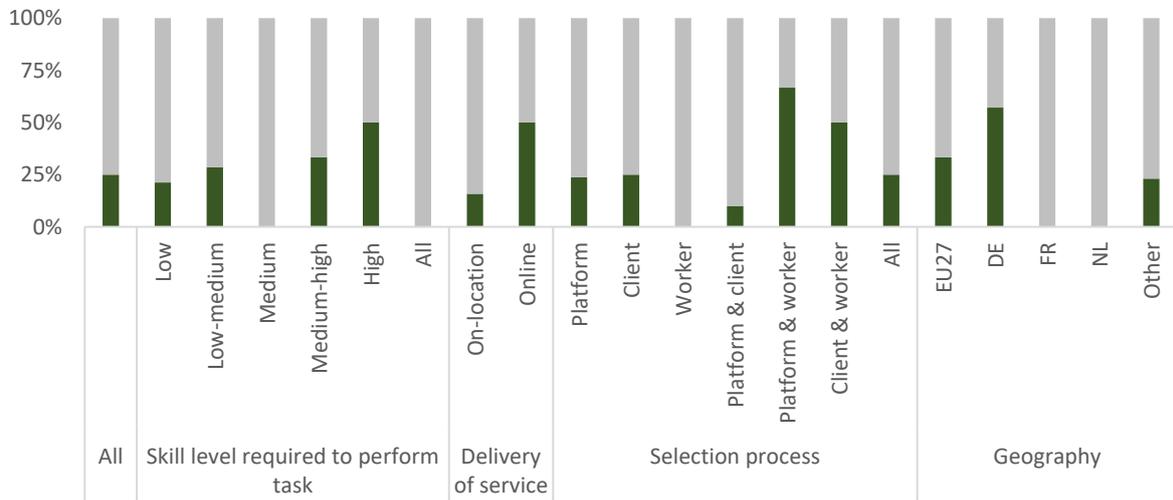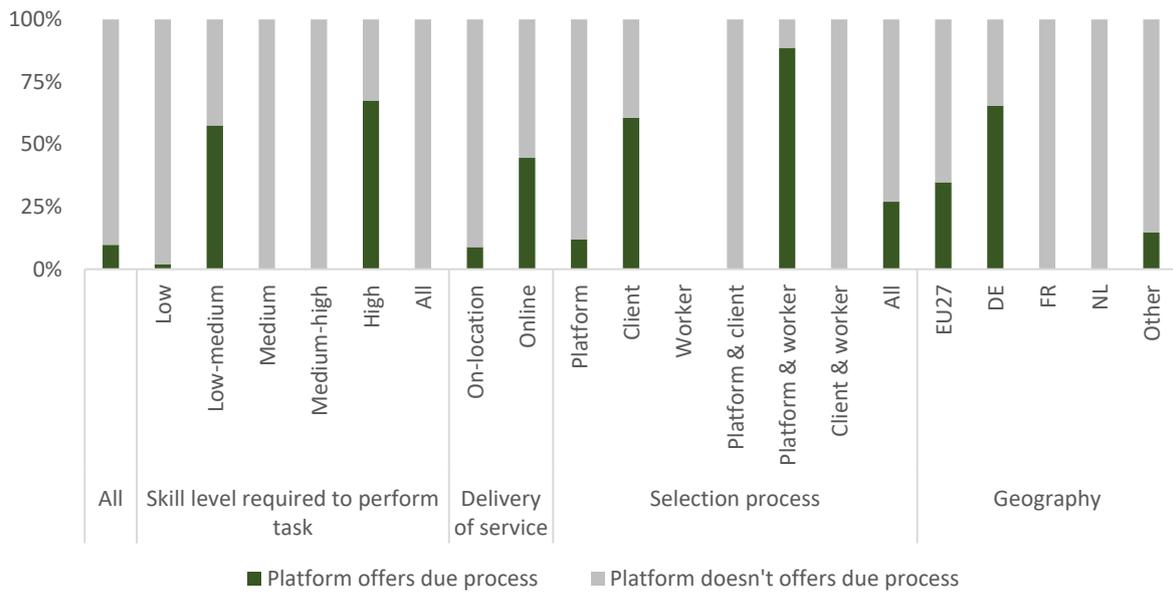
Note: The figure indicates whether selected DLPs offer due process to people working through platforms with regard to decisions that affect them. For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels (N=52). For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 63 Dispute resolution on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ No dispute resolution stipulated

■ Human provided to review and reconsider decision

■ Dispute resolution process arbitrated by a third party

Note: The figure shows whether dispute resolution mechanisms are available on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 64 Jurisdiction for dispute resolution on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Not applicable

■ Dispute resolution takes place by definition in jurisdiction in jurisdiction where the work is performed

■ Dispute resolution takes place in jurisdiction where the digital labour platform is headquartered but not all the work is performed

■ Dispute resolution takes place in jurisdiction where the digital labour platform is headquartered and the work is performed

Note: The figure indicates the jurisdiction in which dispute resolution takes place, if it is available on the selected DLPs (N=52). 'Not applicable' refers to DLPs that do not offer any dispute resolution mechanism. For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 65 Collective representation on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ No stipulation

■ Platform recognises that worker body can undertake collective representation and bargaining

■ Platform includes freedom of association and worker voice mechanism

Note: The figure shows whether collective representation mechanisms are available on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 66 Measures to prevent discrimination and promote equity on selected DLPs active in the EU27

a) Share of number of DLPs
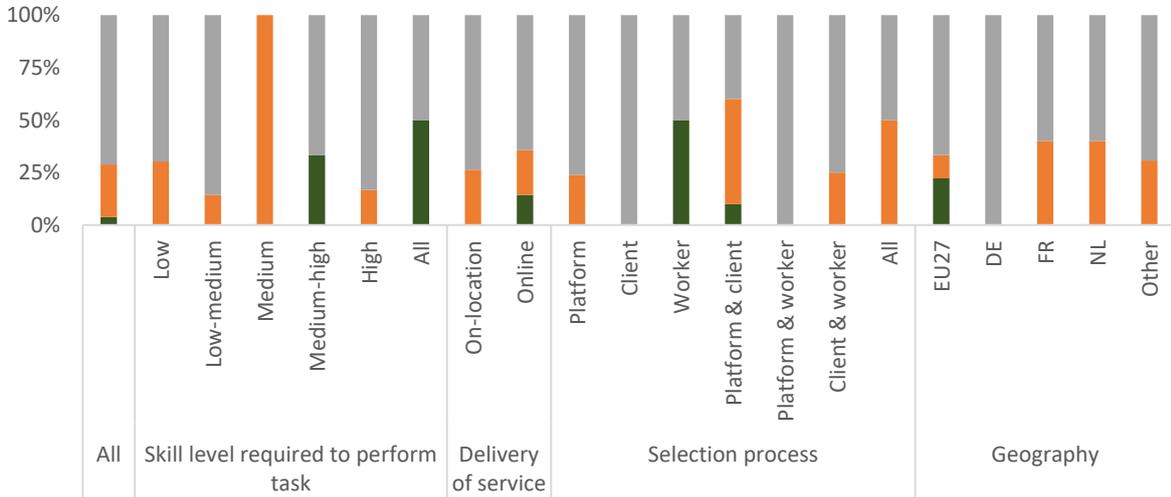
b) Share of earnings of people working through DLPs
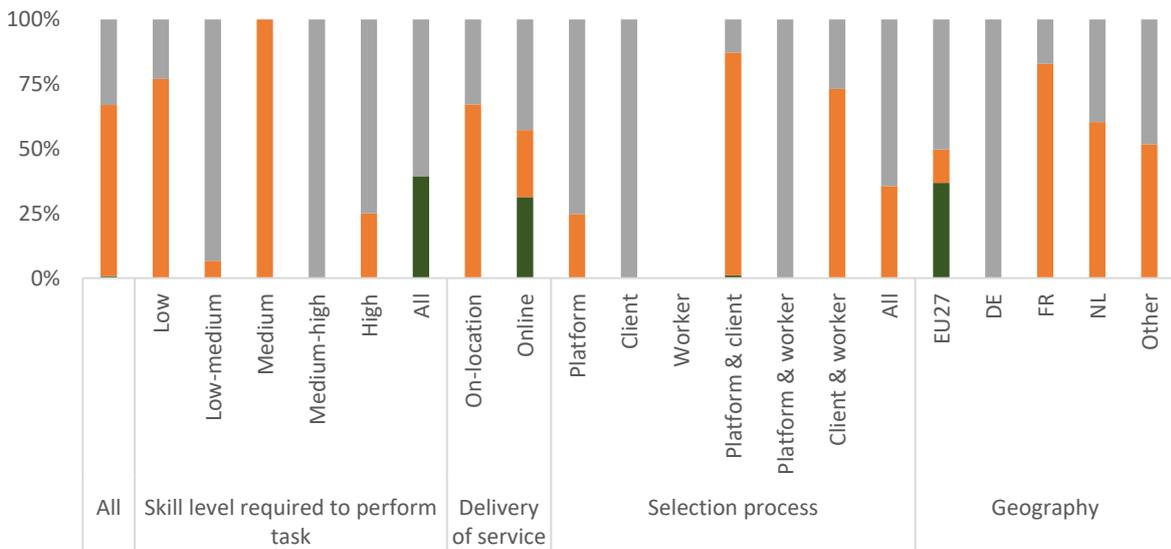
- No stipulation
- Some measure to prevent discrimination and promote equity
- Evidence of preventing discrimination and promoting equity

Note: The figure shows whether selected DLPs have measures to prevent discrimination and promote equity (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels. For selection process, the category 'all' refers to DLPs where all parties – platform, client and worker – are included in the selection process. The distribution of the share of earnings of people working through DLPs is not provided for worker-selected tasks as the total earnings of people working through these platforms were estimated to be insignificant. For geography, the category 'EU27' refers to DLPs that are active throughout the EU27 countries.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Annex IV. Business models and working conditions – COLLEEM typology

Figure 67 Autonomy in allocation of tasks on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Low ■ Medium ■ High

Note: The figure shows which party is responsible for the allocation of tasks (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 68 Direction on selected DLPs active in the EU27
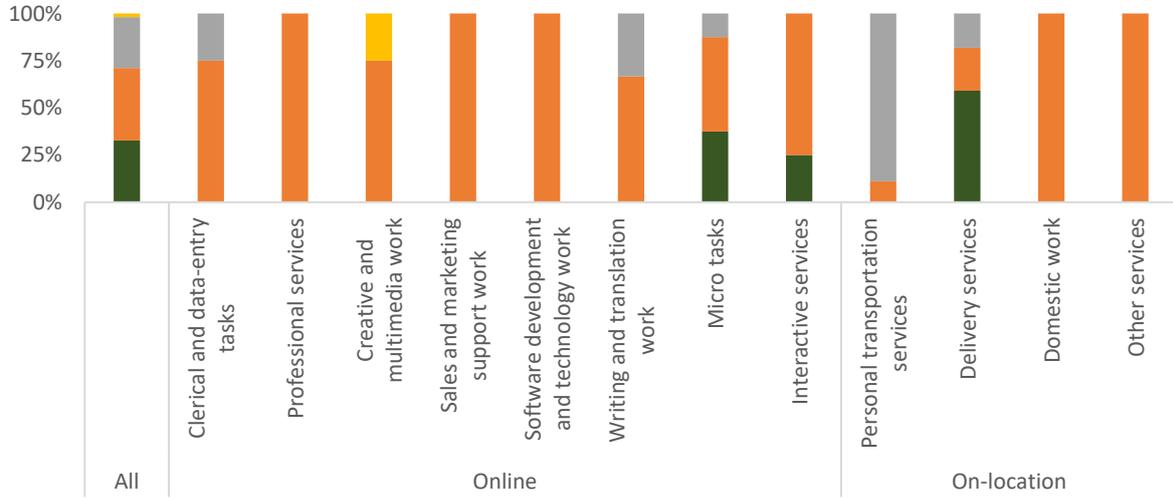
a) Share of number of DLPs

b) Share of earnings of people working through DLPs
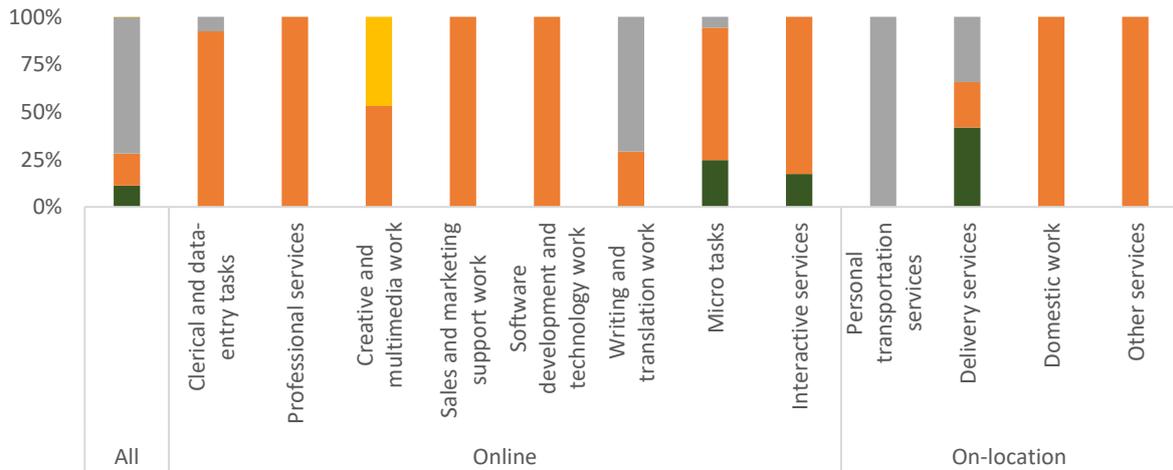
■ Direction from platform   ■ Direction from client
■ Direction partially from client and partially platform ■ No stipulation

Note: The figure identifies who gives direction to people working through platforms on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 69 Mitigation of physical risks on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform actively improves working conditions ■ Platform mitigates task-specific risks
■ Platform has no stipulation

Note: The figure shows whether and what kind of policies aimed at mitigating physical risks associated with platform work are stipulated on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 70 Surveillance on selected DLPs active in the EU27
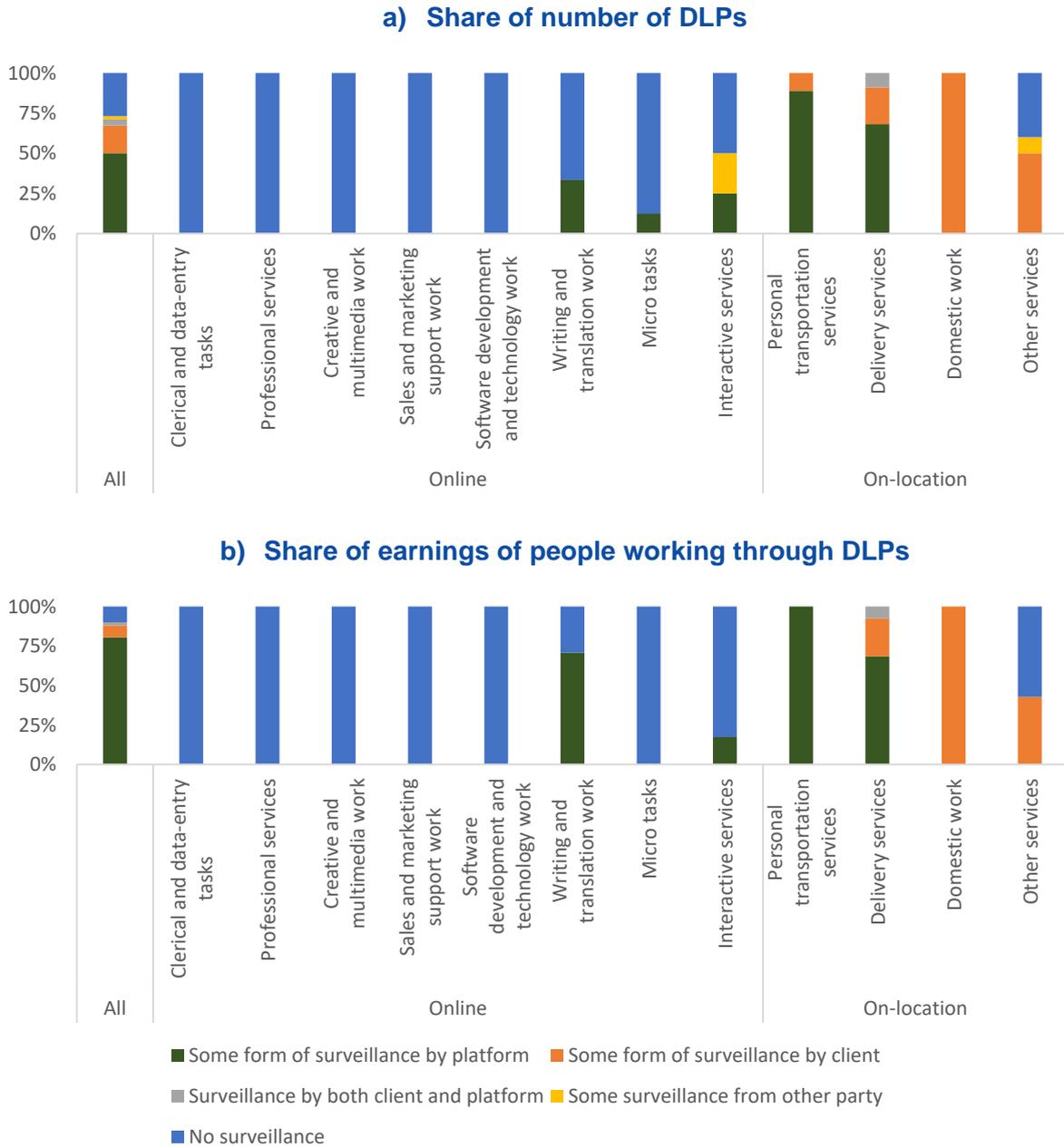
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

- Some form of surveillance by platform
- Some form of surveillance by client
- Surveillance by both client and platform
- Some surveillance from other party
- No surveillance

Note: The figure shows whether and by whom people working through platforms are overseen whilst carrying out tasks on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 71 Appraisal of people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform ■ Clients ■ Both clients and platform ■ Co-workers

Note: The figure shows whether and by whom people working through platforms are appraised after carrying out tasks on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 72 Appraisal of clients on selected DLPs active in the EU27
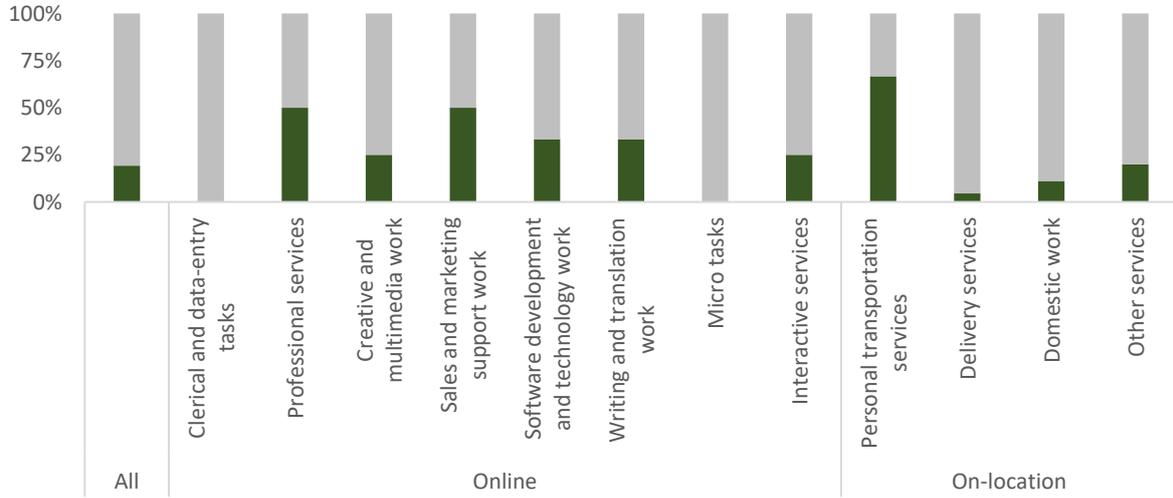
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform workers appraise clients ■ Platform workers don't appraise clients
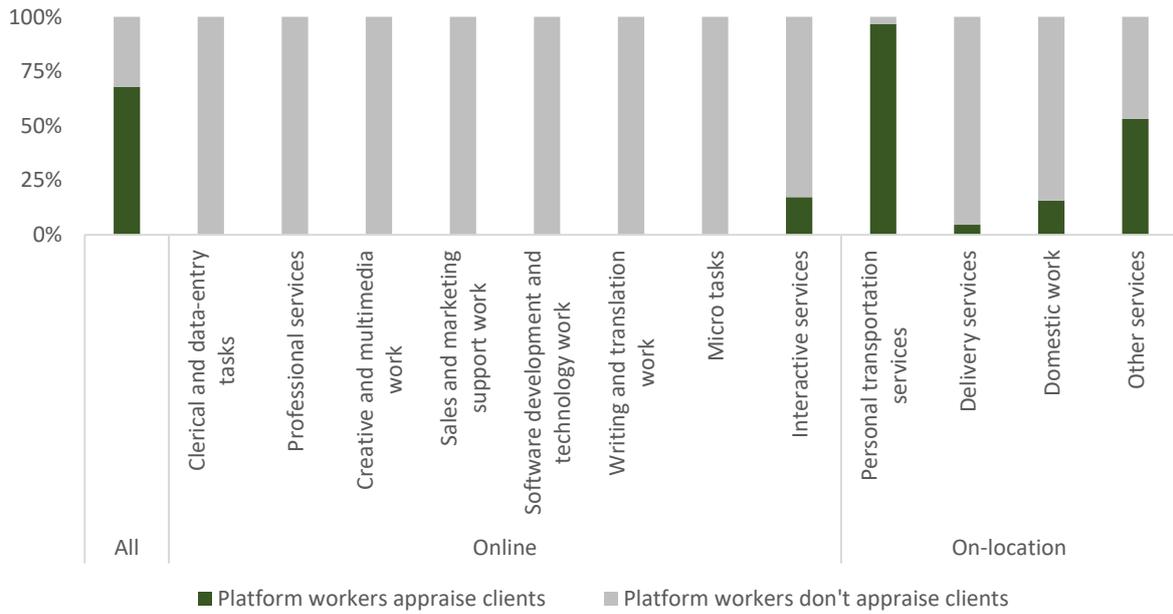
Note: The figure shows whether people working through platforms are able to appraise clients on the selected DLPs (N=52). For skill level, the category 'all' refers to DLPs where tasks carried out include all skill levels.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 73 Proportion of people working as employees on selected DLPs active in the EU27
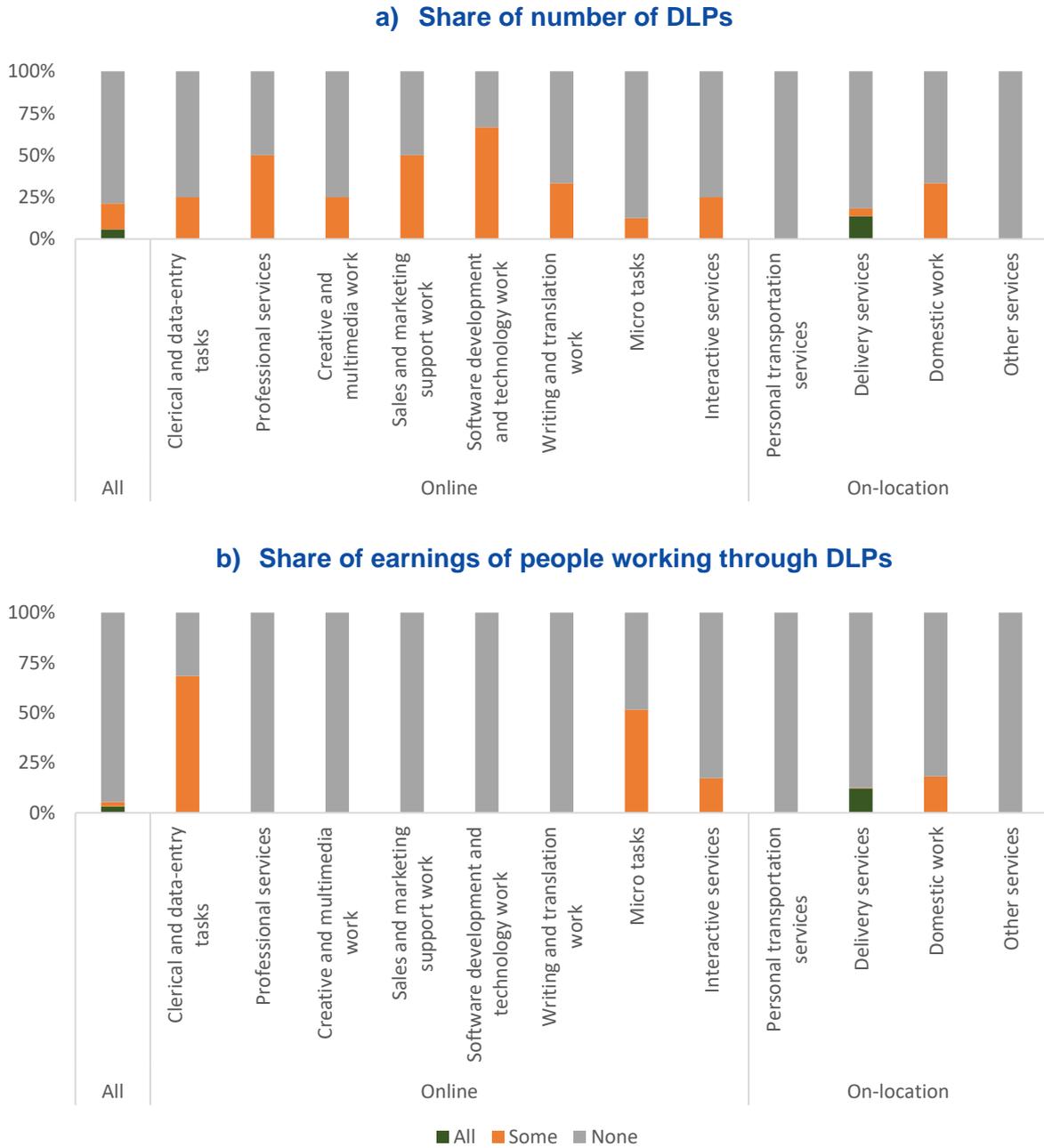
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Note: The figure shows the employment status of people working through platforms on the selected DLPs (N=52). 'All' indicates that the platforms employs all people working through it, 'some' indicates that it employs some, 'none' indicates that none are employed.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 74 Identity of employer on selected DLPs active in the EU27
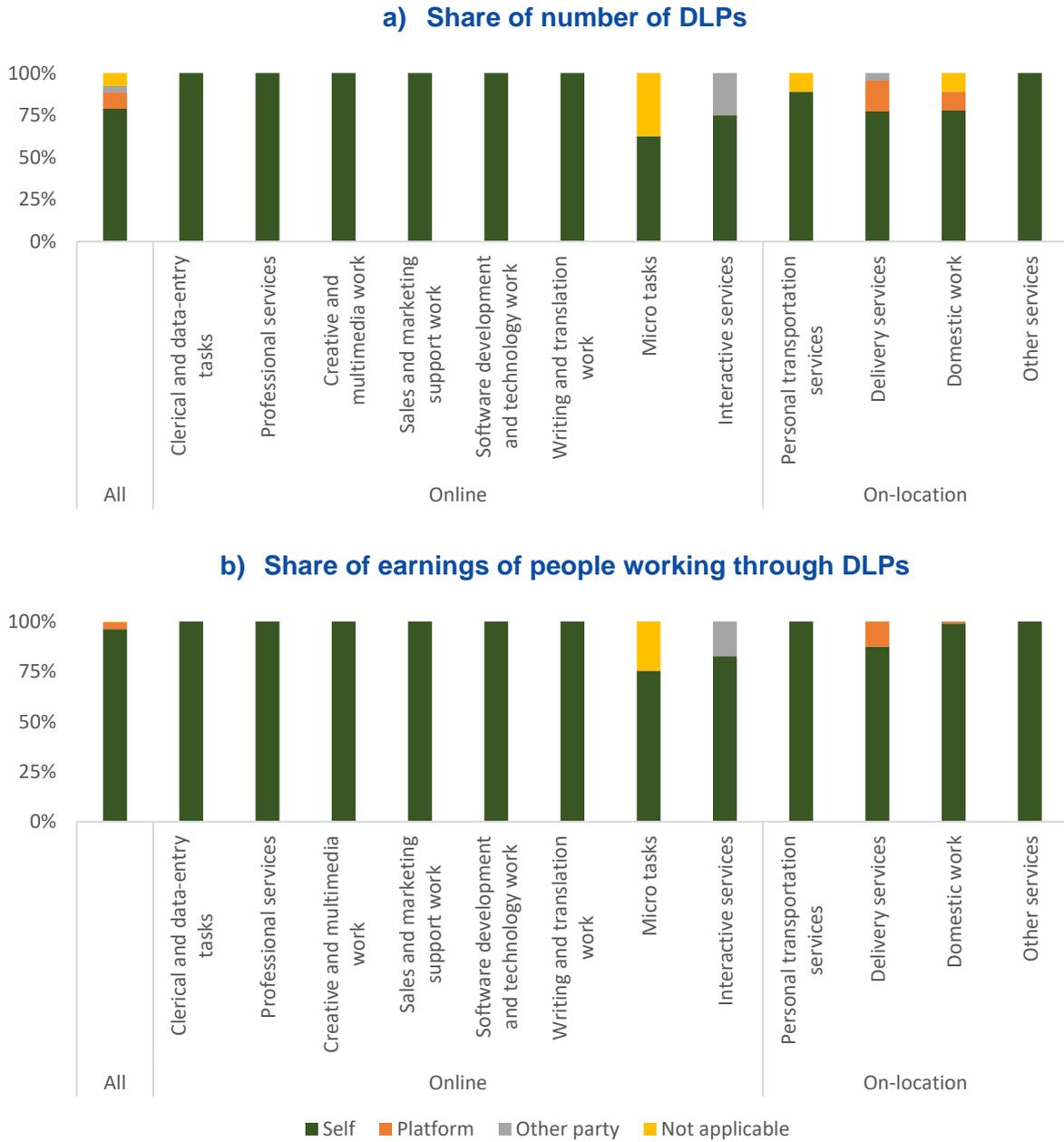
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

Note: The figure identifies the employer of people working through platforms on the selected DLPs (N=52). For platforms with several types of employers, the most common one is indicated.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 75 Access to unemployment benefits for people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Right to unemployment benefits   ■ No right to unemployment benefits

Note: The figure shows whether people working through platforms have access to unemployment benefits through their work for the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 76 Access to accident and occupational injuries insurance for people working through selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Accident and occupational injuries insured   ■ Accident and occupational injuries not insured

Note: The figure shows whether people working through platforms have access to accident and occupational injuries insurance through their work for the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 77 Working time for people working through selected DLPs active in the EU27
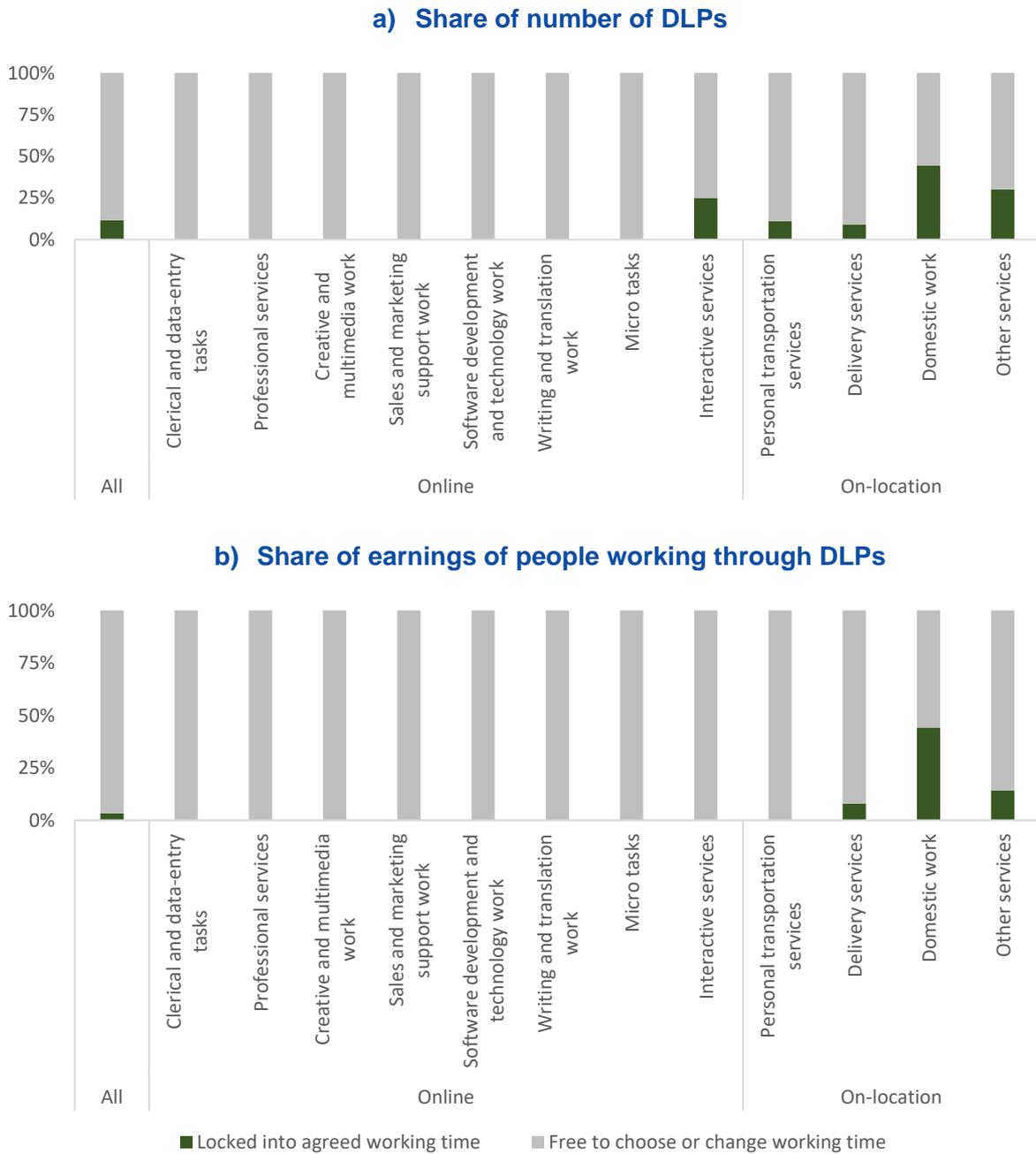
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Locked into agreed working time ■ Free to choose or change working time

Note: The figure shows whether terms and conditions are publicly available on the selected DLPs (N=52). 'Terms and conditions' refers to the public availability of T&Cs that address the person working through the platform. They reflect the relationship with the worker if they explicitly address and accurately reflect the employment relationship between the DLP and the person working through the platform.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 78 Contracts on selected DLPs active in the EU27
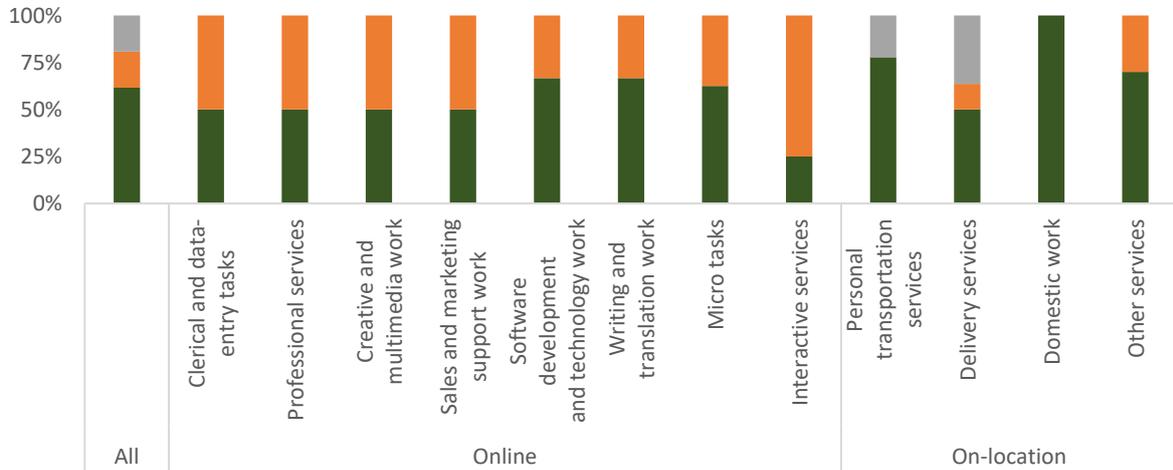
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Terms and conditions   ■ Terms and conditions reflecting relation with platform worker   ■ No stipulation

Note: The figure shows whether terms and conditions are publicly available on the selected DLPs (N=52). 'Terms and conditions' refers to the public availability of T&Cs that address the person working through the platform. They reflect the relationship with the worker if they explicitly address and accurately reflect the employment relationship between the DLP and the person working through the platform.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 79 Dismissal and deactivation notices on selected DLPs active in the EU27
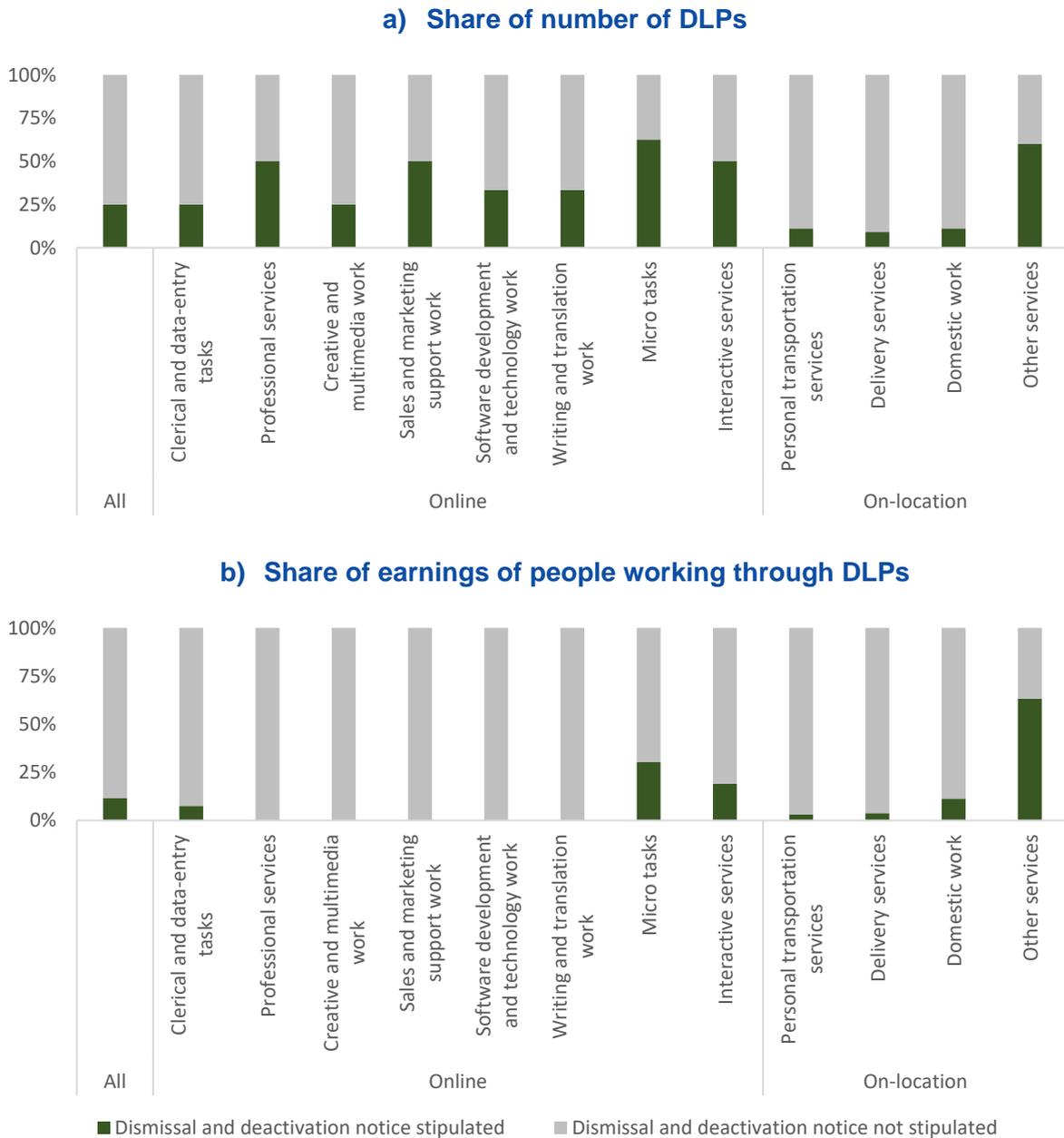
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Dismissal and deactivation notice stipulated   ■ Dismissal and deactivation notice not stipulated

Note: The figure indicates whether dismissal and deactivation notices are stipulated on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 80 Earnings of people working on selected DLPs active in the EU27
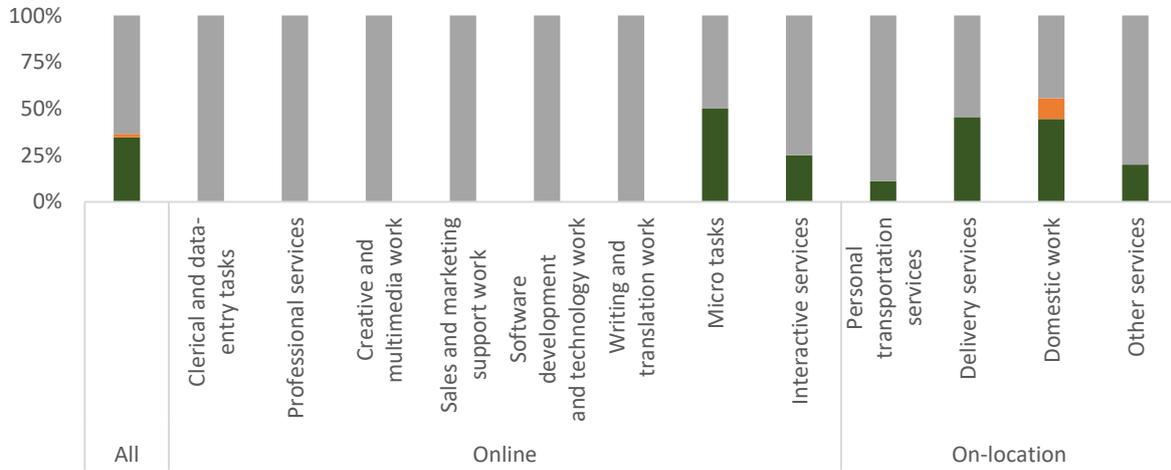
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform determines minimum rate ■ Wage based on collective agreement ■ No stipulation
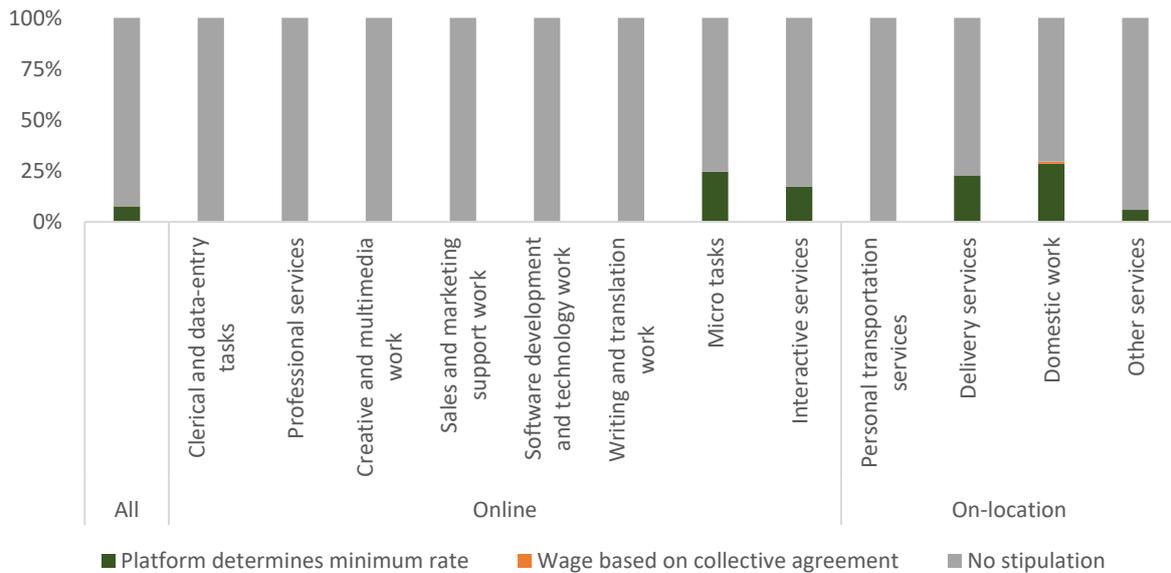
Note: The figure shows whether selected DLPs have a policy relating to earnings of people working through platforms (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 81 Due process on decisions affecting people working through platforms on selected DLPs active in the EU27
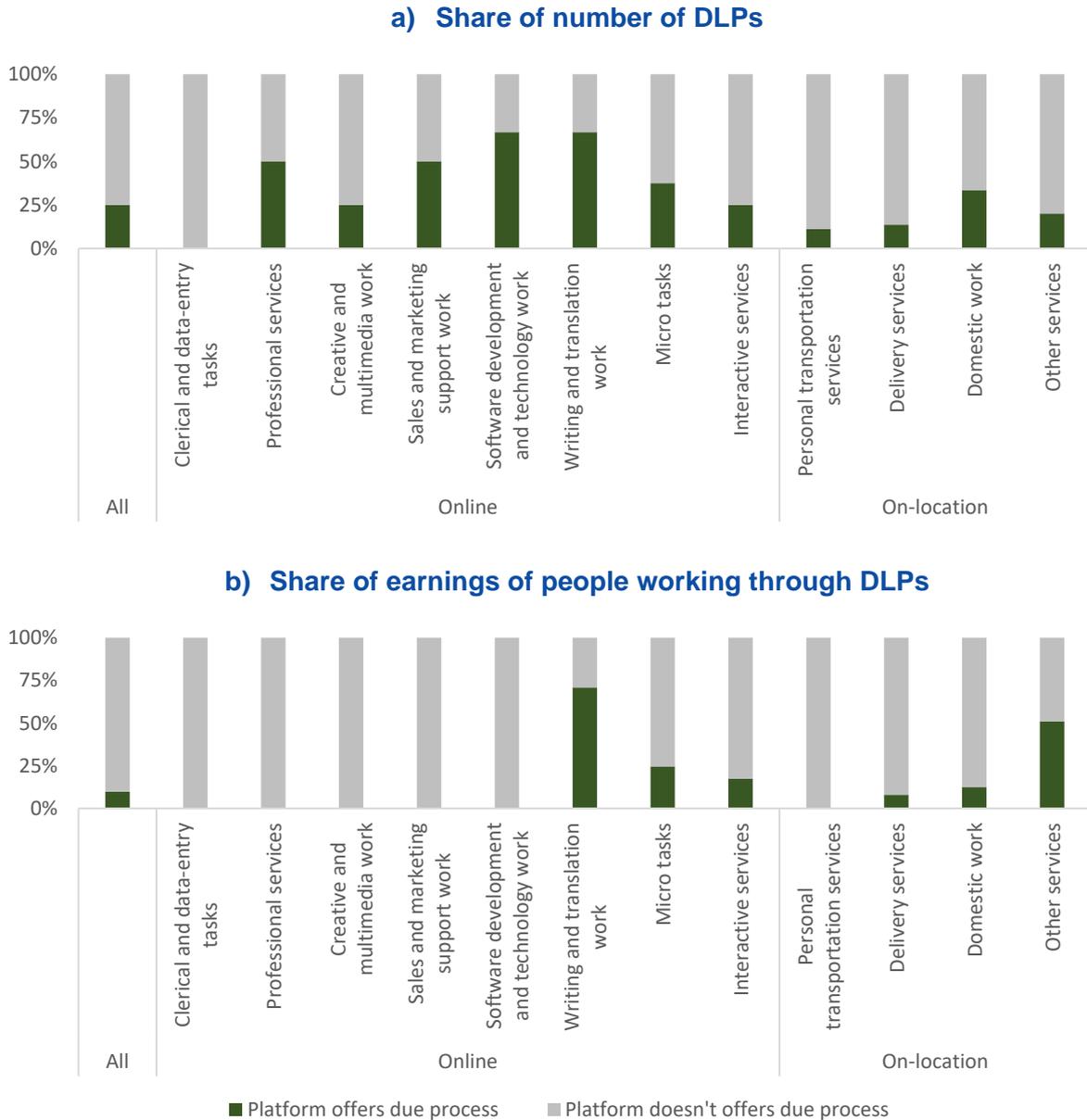
a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Platform offers due process   ■ Platform doesn't offers due process

Note: The figure indicates whether selected DLPs offer due process to people working through platforms with regard to decisions that affect them.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 82 Dispute resolution on selected DLPs active in the EU27
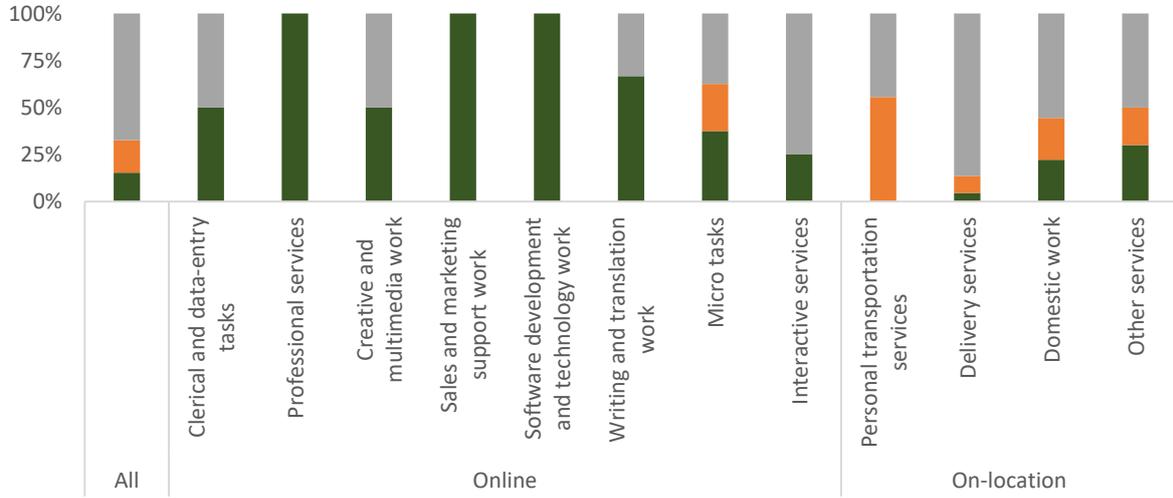
a) Share of number of DLPs

b) Share of earnings of people working through DLPs
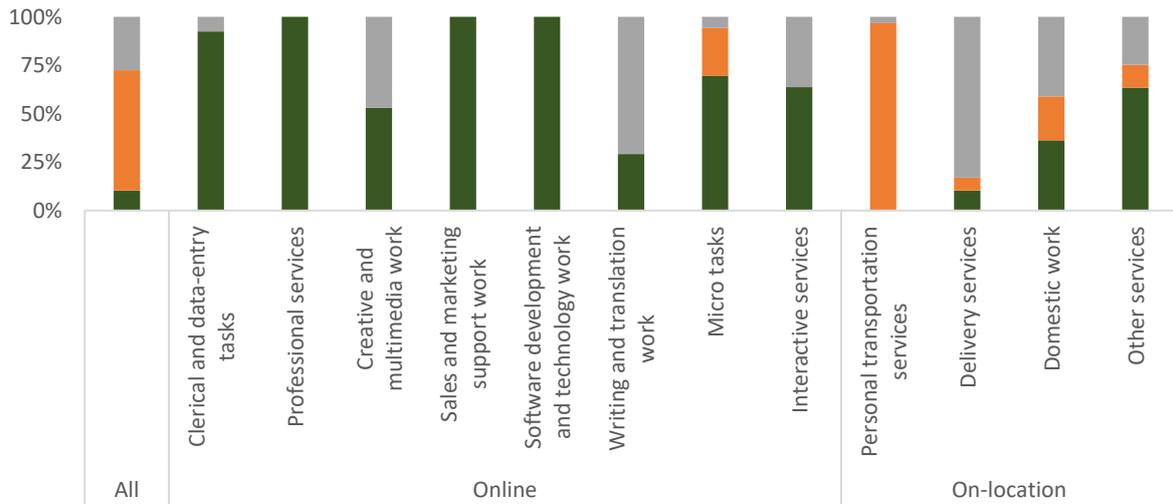
■ No dispute resolution stipulated

■ Human provided to review and reconsider decision

■ Dispute resolution process arbitrated by a third party

Note: The figure shows whether dispute resolution mechanisms are available on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 83 Jurisdiction for dispute resolution on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ Not applicable

■ Dispute resolution takes place by definition in jurisdiction in jurisdiction where the work is performed

■ Dispute resolution takes place in jurisdiction where the digital labour platform is headquartered but not all the work is performed

■ Dispute resolution takes place in jurisdiction where the digital labour platform is headquartered and the work is performed

Note: The figure indicates the jurisdiction in which dispute resolution takes place if it is available on the selected DLPs (N=52). 'Not applicable' refers to DLPs that do not offer any dispute resolution mechanism.

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 84 Collective representation on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

■ No stipulation

■ Platform recognises that worker body can undertake collective representation and bargaining

■ Platform includes freedom of association and worker voice mechanism

Note: The figure shows whether collective representation mechanisms are available on the selected DLPs (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

Figure 85 Measures to prevent discrimination and promote equity on selected DLPs active in the EU27

a) Share of number of DLPs

b) Share of earnings of people working through DLPs

- No stipulation
- Some measure to prevent discrimination and promote equity
- Evidence of preventing discrimination and promoting equity
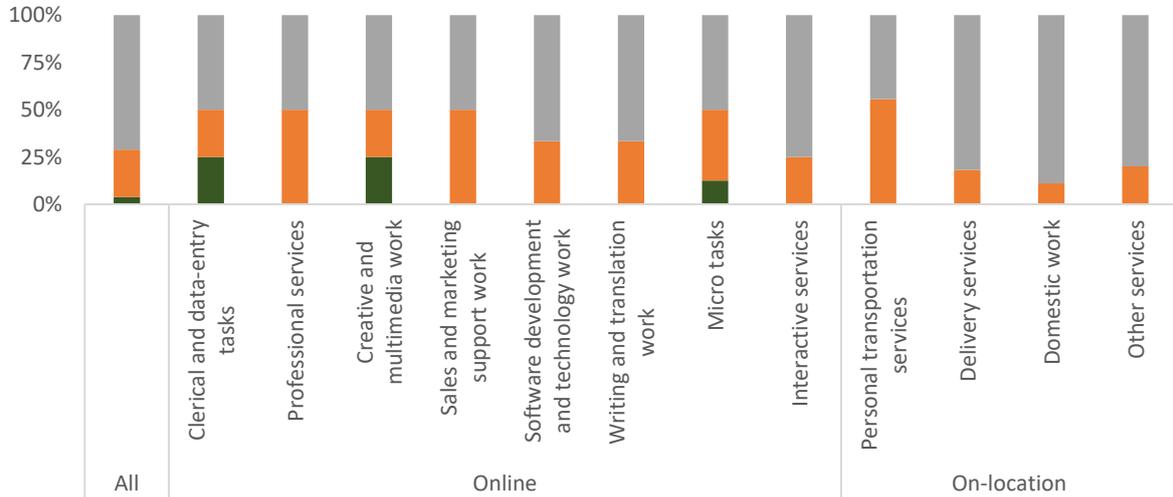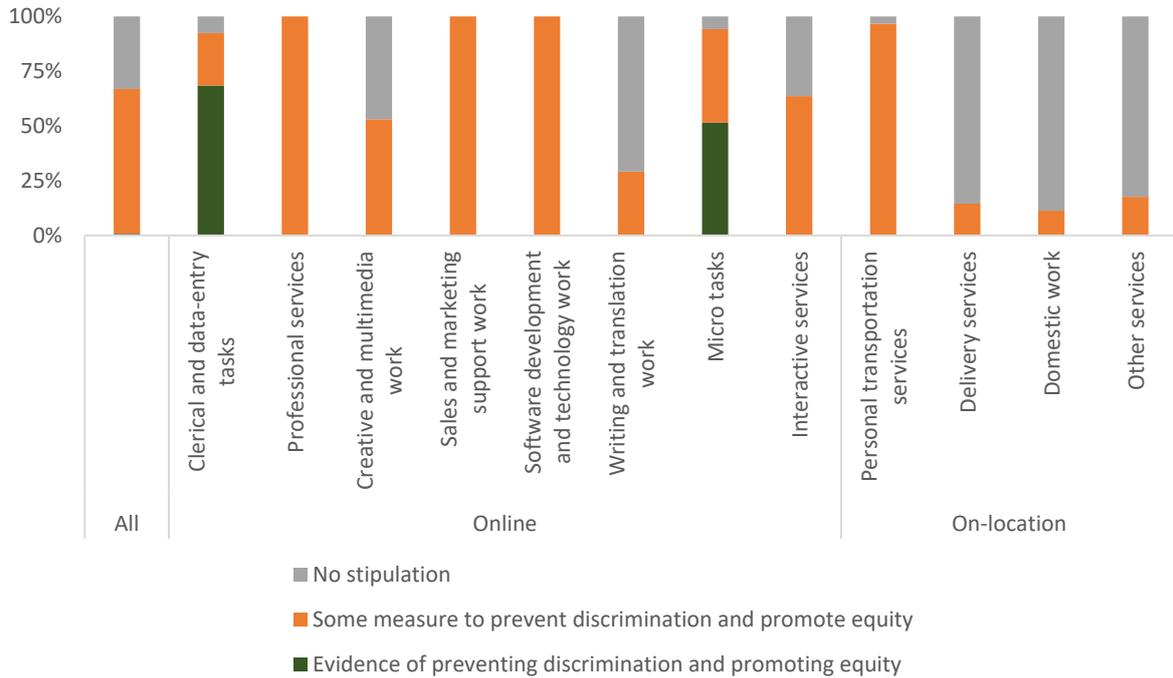
Note: The figure shows whether selected DLPs have measures to prevent discrimination and promote equity (N=52).

Source: Authors' estimations based on dataset of DLPs active in the EU27.

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

– by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),

– at the following standard number: +32 22999696, or

– by email via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications from: https://op.europa.eu/en/publications. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.