

## OCCUPATIONAL SAFETY AND HEALTH RISKS OF PARCEL DELIVERY WORK ORGANISED THROUGH DIGITAL LABOUR PLATFORMS

### Introduction

This case study is dedicated to **parcel delivery carried out in the platform economy**. The study looks into the occupational safety and health (OSH) risks associated with parcel delivery work intermediated through a digital labour platform, and it further covers OSH risk prevention and management. Although parcel delivery work in itself is not new, it is now increasingly organised through digital labour platforms, which presents new challenges to the safety and health of delivery workers. More specifically, platforms rely on algorithms to automate the matching of delivery tasks to delivery workers (riders, drivers), often in real time. These algorithms, however, are often untransparent and undermine workers' autonomy to decide on their working times as well as their task discretion. Parcel delivery platform workers usually do not know what kind of tasks, task duration or work location to expect. Moreover, in the transportation sector more generally, the use of subcontracting and non-standard work arrangements is on the rise. In the literature and policy targeting digital platform work, within the transport sector most attention is devoted to *food delivery* (such as Deliveroo) and *passenger transport* (such as Uber) services. Much less attention is paid to parcel delivery, despite the growing importance of this type of work. This case study aims to help address this gap.

In this case study, digital platform work is defined as all paid labour provided through, on, or mediated by a digital labour platform. Digital labour platforms serve as online marketplaces matching the demand and supply of labour. Platform work is characterised by a **use of algorithmic management**<sup>1</sup> to allocate, monitor and evaluate the work performed and the behaviour and performance of the platform workers, **triangular work relationships**, and a **prevalence of non-standard working arrangements**. The case study was drafted as part of a research project on platform work and OSH, which aims at providing an overview of OSH policies, research and practices in the context of digital platform work, through the review of the literature and available data and fieldwork (EU-OSHA 2021a; 2021b). The work presented here builds on an in-depth review of recent academic and grey literature - analysing parcel delivery in both the 'traditional economy' and the 'platform economy' and comparing parcel delivery platform work with related forms of platform work such as food delivery. The case study also builds on three interviews with platforms and two with platform workers (covering both global and local platforms). To get a good understanding of the transport sector, and parcel delivery in particular, and how this was affected by the emergence of digital labour platforms, additional stakeholder interviews were conducted.

### Parcel delivery

#### Parcel delivery platform work and its prevalence and organisation

Parcel delivery, also known as courier services, involves the **transportation and delivery of small and light parcels by a worker using a motorised vehicle** (such as a delivery van, lorry, car or motorbike) **or a non-motorised vehicle** (such as a regular bicycle or cargobike), including door-to-door and express delivery (such as on-demand pick-up or time-definite delivery).<sup>2</sup> Parcels are usually single-piece packages of various contents, including hazardous or delicate goods. Parcel delivery differs from freight transport in that the packages are smaller and lighter. Building on this conceptualisation, this case study considers all types of parcel delivery when organised through a digital labour platform,

<sup>1</sup> Algorithmic management is defined as oversight, governance and control practices conducted by software algorithms over many workers (Möhlmann and Zalmanson, 2017, p. 4).

<sup>2</sup> The EU Regulation of 18 April 2018 on cross-border parcel delivery services considers parcels to be postal items containing goods with or without commercial value weighing up to 31.5 kg, since heavier items cannot be handled by a single average individual without mechanical aids and this activity is part of the freight transport and logistics sector.

irrespective of the vehicle used. Throughout the text, we refer to delivery platform ‘worker’ when we cover all types, ‘driver’ when a van, car, or motorbike is used, and ‘rider’ when a bicycle is used.

Common tasks in parcel delivery work are delivering and picking up goods at various locations (which the worker may not be familiar with); operating a vehicle or equipment; loading and unloading a vehicle and handling different types of goods (which involves sorting items, and loading goods from a larger truck or from a warehouse into the vehicle); performing maintenance on the delivery vehicle (such as refuelling); obtaining signatures and payments; receiving messages or materials to be delivered or information on recipients (such as delivery instructions or address); recording information (such as delivery confirmation); having contact with recipients; and handling technology (such as a phone or GPS) (O\*NET, 2021).

Parcel delivery services are offered by a wide range of different providers, including workers on digital labour platforms. According to the taxonomy developed for the purposes of the study (EU-OSHA, 2021a), **parcel delivery is a type of on-location platform work that does not require higher or specialised skills and that is characterised by a high level of control exercised by the digital platforms.**<sup>3</sup> In relation to the latter point, we mean that the platforms use algorithms to determine the work organisation and allocation, leaving little autonomy and discretion to the workers themselves (also see below). Food delivery services and passenger transport services organised through digital labour platforms fall within the same category in this taxonomy. Literature on parcel delivery platform work, however, is scarce in comparison to the literature on passenger transport and food delivery. This also applies to policy, which seems to have targeted food delivery and passenger transport services in particular. For example, the recent legislative initiatives introduced in France<sup>4</sup>, which explicitly target the transportation of goods and thus parcel delivery platform work, are indicative of the need for resolving these issues.

Platform work has developed rapidly in the past decade, especially in the transport sector (Urzi Brancati et al., 2020; ILO, 2021). Urzi Brancati et al. (2020) find that most transport services platforms appear to focus on one core activity, in comparison to, for example, digital labour platforms intermediating other types of on-location work (for example, ListMinut offers handiwork, personal care services, tutoring, and so on). Some platforms intermediating transport services do, however, offer a wider range of services (for example, moving services which include (un)packing furniture). In terms of the workers’ profiles, transportation platform work is dominated by lower-educated men, of whom many have a migration background (Pesole et al., 2018; Urzi Brancati et al., 2020; European Commission, 2020; Dablanc et al., 2021).

It has been noted, both by interviewed experts and in the literature (Polkowska, 2021a; 2021b; Zuev et al., 2021), that many of these workers are third country (non-EU) nationals, in some cases not compliant with migration or labour legislation. Such workers are even more vulnerable, and their position has worsened since the COVID-19 crisis (De Wispelaere and Gillis, 2021).

## Key developments in the transport sector and their relation to parcel delivery platform work

Parcel delivery is an activity which has had a long history, with its origin dating from long before the rise of platform work, and also preceding postal services (Rabontu, 2016). Since the emergence of structural postal services, courier services have been both complementary and in competition with postal services.<sup>5</sup> While structural postal services always were and still are predominantly standardised (for example, in terms of price, parcel size, times of delivery, and so on) courier service companies offer more **tailor-made solutions** (for example, on site pick-up and delivery, prices dependent on speed and/or the means of the service required, delivery location and parcel size, and so on). According to European Commission data (EU Science Hub, 2021), in the EU about 10 million workers are directly

<sup>3</sup> This categorisation is in line with the platform work typology proposed by Eurofound (2018), where parcel delivery is classified as category *on-location platform-determined routine work*: platforms allocate tasks to platform workers based on an offer.

<sup>4</sup> For example, in France, Law No. 2019-1428 of 24 December 2019, regarding the orientation of the means of transportation (also known as the LOM), introduces a right to disconnect and a right to refuse work without any penalty to platform workers either driving a ‘transport car’ or delivering goods using a motorised or not-motorised two- or three-wheeled vehicle, for example in passenger transport or parcel delivery. For more information EU-OSHA (2022c).

<sup>5</sup> Among the most common examples of historical parcel delivery services are stagecoaches or *diligences*, the Pony Express, and more recently: delivery van, (motor)bike and skate or skeeler couriers (the latter typically in big commercial metropolises).

employed in the transport sector, while the average household spends 13.2% of its budget on transport of goods and services.

In the last decades, courier services in general, and parcel delivery in particular, have gained importance (Pliszka, 2003). This is driven by the booming globalisation of the economy and, more recently, by the emergence of e-commerce and online marketplaces, which opened up the market for small businesses and private actors (Hunter, 2005). One of the consequences has been a growth in both parcel volumes and home deliveries, even before the digital platforms entered the courier, express and parcel services (CEP) market. Traditional postal and courier services had already been restructuring their business models for some time, but this process intensified with the proliferation of e-commerce, and even more so since the **emergence of digital labour platforms offering parcel delivery services** (Taylor and Hallsworth, 2000). The growing demand and increasing competition - both regarding the number of players in the market and on pricing - have led to mergers in the transport sector. A growing number of companies now offer both postal and courier services. At the same time, transport companies are increasingly assimilating operational models involving subcontractors, subcontracting chains and/or self-employed drivers and riders ('supply chain').<sup>6</sup>

Following these developments, according to two interviewed stakeholders with much experience in the transport sector, the **working and employment conditions of workers have worsened** (for example, an increase of temporary work and bogus self-employment), and the **OSH risks often associated with this** seem to have increased, even more so in highly competitive markets as speed and quality of services need to be high but prices often extremely low, particularly in the road freight transport sector.<sup>7</sup> One interviewee working for an enforcement body explained that the increasing competition and the worsening working and employment conditions in the transport sector have already led to a higher number of accidents, in particular in the context of 'last mile' deliveries in urban areas. This interviewee further said that several key challenges in the transport sector (including in the area of OSH), both recent and old, are now being exacerbated due to the rise of new business models and new forms of work, including platform work.

Although there is less literature on parcel delivery platform work than on food delivery platform work, the **rise of digital labour platforms intermediating parcel delivery work** has drawn significant attention from policy-makers, social partners and researchers, as confirmed in the stakeholder and expert interviews, for several reasons. First, the transport sector in general is one of the first sectors that witnessed the entry of online platforms as a major player in its markets, and to date it remains one of the sectors in which platform work is concentrated (especially in passenger transport and food and parcel delivery). Being a heavily regulated sector, transport was also among the first sectors where policy-makers and government agencies took **measures targeting platforms and platform work**, initially mostly to safeguard fair competition (such as checking whether drivers held required licences) (Lenaerts et al., 2017; European Commission, 2020). These measures and actions were often sector-specific, for example targeting only platforms involved in food delivery or passenger transport. On this note, the results of the first COLLEEM survey (Pesole et al., 2018) provide telling evidence. Pesole et al. (2018) report that there is much variation in the provision of transport services through platform work across the EU, which they believe is due to legal restrictions that some countries introduced on transport services platforms (such as Uber, which was banned in several Member States). Coupling these data with the findings from the second COLLEEM survey (see Urzi Brancati et al., 2020), reveals high turnover rates among platform workers providing transport services.

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<sup>6</sup> Not completely unlike the evolution in civil aviation where mergers and alliances have been going hand in hand with an increase of atypical employment models involving subcontracting, 'employment agencies' and forms of 'flagging out' (Jorens et al., 2015).

<sup>7</sup> Indicative is an ongoing court case in Belgium against PostNL and GLS on accounts of social fraud, among others, launched following an investigation by enforcement authorities (Van Genechten, 2021; Bové, 2021). It appears that PostNL and GLS had installed a 'pyramid system' for part of their delivery services. Allegedly, this works as follows: e-commerce companies use postal or courier services companies for the delivery of goods bought through their shop. Some of these companies use subcontractors, who in turn also use a subcontractor, who finally delivers the parcel. In many cases, the final subcontractors are hired as self-employed workers, so they themselves are responsible for their own health and safety, although the facts of this labour relation would not support its legal qualification. According to an interviewed stakeholder, a complication is that some of these traditional postal and courier service providers have set up their own internal 'online platform', which uses an algorithm to allocate tasks to workers who compete with each other. This court case shows that challenges in traditional sectors may not be so different from those in platform work, and that some of the practices common among digital labour platforms are now finding their way to traditional postal and courier service companies too.



## Parcel delivery platform work during the COVID-19 pandemic

Most recently, and as a result of the **COVID-19 pandemic** and the measures adopted to halt the spread of SARS-CoV-2 and minimise the number of losses, both food and parcel delivery services boomed, during lockdowns in particular, but the boom has hardly decreased ever since (Eurofound, 2021a). Here also, the need for prevention of work-related accidents and diseases and the enforcement of compliance with OSH rules and regulations is clear (De Wispelaere and Gillis, 2020; De Wispelaere and Gillis, 2021; ILO, 2021). Even more so, workers performing parcel delivery services are **essential workers**<sup>8</sup>, and hence are exposed to higher risks than, for example, platform workers doing online work, or platform workers doing on-location work whose activities were restricted (EU-OSHA, 2021a).

More specifically, parcel delivery work was among the activities that were still allowed even at times of lockdowns, curfews and general restrictions on citizens' mobility (for example, when people were not allowed to leave their homes and many stores were closed, many turned to online shopping and at home parcel delivery to buy the goods they needed). Parcel delivery riders thus continued working, and, given the increased demand for deliveries, even may have had more opportunities to work and earn an income (EU-OSHA, 2021a; Eurofound, 2021b). At the same time, it is clear that some workers have continued working during the pandemic out of **necessity** (for example, being heavily dependent on the income earned) or, being categorised as self-employed, because they **could not or only to a limited extent fall back on financial relief provided by the government** (EU-OSHA, 2021a). Parcel delivery riders do have a higher risk of being exposed to COVID-19 or spreading it to others, as their work involves being in contact with many people. These delivery platform workers, however, may not have had access to adequate personal protective equipment (both in terms of quantity and quality) (OECD, 2020; EU-OSHA, 2021a).

Transport platforms have taken some measures to protect the health and safety of platform workers and clients during the pandemic, for example, providing guidance, introducing contactless delivery, removing obligatory signature of delivery, and making available personal protective equipment (OECD, 2020; EU-OSHA, 2021a; Eurofound, 2021b). One parcel delivery worker interviewed for this case study reported being contacted by the platform to ensure couriers were adopting contactless delivery and using masks.

## Safety and health aspects of parcel delivery

The **OSH challenges** related to parcel delivery performed as platform work are significant. Although these challenges by themselves may not be very different from those encountered in parcel delivery work in the traditional economy, nor from those related to other transport services in platform work, they are exacerbated due to the nature, organisation and the working and employment conditions of platform work (Huws, 2015; Tran and Sokas, 2017; EU-OSHA, 2017; 2021a; Christie and Ward, 2019). That being said, as traditional transport companies are increasingly adopting practices common in platform work - such as atypical labour relations, low and uncertain remuneration, and very low job security - the differences tend to become smaller (see Álvarez Alonso, 2016). To gain further insight into the OSH risks and how they are prevented and managed, this section first describes the OSH risks that directly follow from the tasks performed by parcel delivery platform workers, and second lists the reasons why these OSH risks are aggravated when parcel delivery work is organised through digital labour platforms. The section additionally points out practices used to prevent and manage these risks.

### OSH risks related to the work activities in parcel delivery

Parcel delivery involves **similar work activities** in the platform economy as in the traditional economy (EU-OSHA, 2021a), which includes operating a vehicle while in traffic and being exposed to the weather (in particular when using a bicycle or motorbike); loading, unloading and handling parcels with different weights, shapes and contents; having contact with clients, and so on. These activities as such are **dangerous** and **accident-prone**, and usually require **specific licences or training** for example to be allowed to operate a certain vehicle or equipment to load/unload, to handle some types of parcels, and

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<sup>8</sup> To be understood as workers who carry out critical occupations, the execution of which must be guaranteed to ensure public safety and health in the fight against the COVID-19 pandemic. In its practical guidance to ensure the free movement of critical workers, the European Commission recognises 'transport workers' among the key or essential workers; see Commission Communication 2020/C102/103 'Guidelines concerning the exercise of the free movement of workers during the COVID-19 outbreak'.

so on. (EU-OSHA, 2017). Platform workers with limited experience or training in this work or who do not hold the required licences are at a higher risk of having a work-related accident. Not all platforms verify this, but some do (as confirmed in interviews with experts, platforms and platform workers). In what follows, we provide an overview of the physical and psychological risks related to parcel delivery work, based on relevant literature (including EU-OSHA, 2011 2017; 2021a) and interviews.

Parcel delivery platform workers face a **wide range of physical risks** during their work. A first category of risks are the **ergonomic risks**, which are related to having to operate a vehicle and having to handle the parcels. Depending on the type of work, delivery workers may be sitting down for extended periods of time in a rather confined space, in static and awkward postures<sup>9</sup>, and experience cumulative exposure to whole-body vibration and noise, which can result in musculoskeletal disorders (MSDs) (in particular low-back pain), cardiovascular diseases (heart problems), fatigue and diabetes (Huws, 2015; Christie and Ward, 2019). Parcel delivery workers have to load, unload and handle parcels of various weights, shapes, dimensions and natures (such as large fragile items), and in doing so experience cumulative exposure to the manual handling of items.

According to an interviewed expert working for an enforcement agency, parcel delivery workers may be exposed to **dangerous substances**, for example, if a parcel breaks and its contents get released. Parcel delivery workers may not know the content and value of the parcel (despite EU legislation stating that all parcels should be properly marked and labelled)<sup>10</sup>, which thus could include hazardous or illegal items. This interviewee further highlighted that parcel delivery workers may also be exposed to **physical agents**, specifically thermal conditions, such as no air-conditioning or shade in the summer, or very large differences in the temperature in the cabin versus other parts of a delivery van. Parcel delivery workers are also exposed to pollution while being in traffic, which can cause lung damage (EU-OSHA, 2011).

Of particular note are risks which we group here under road and vehicle safety risks (Christie and Ward, 2019). **Road safety** refers to classic traffic hazards and risks, included (unexpected) traffic jams, road blocks and route deviations causing delays and making travelling more dangerous and more stressful, difficulties in finding the delivery address or finding a safe space to park<sup>11</sup>. Although making an assessment of such risks is key to prevent them, risk assessments are typically not done in the context of platform work, because digital labour platforms do not take up the role of employer (see below). Such assessments may include making an inventory and analysis of possible journeys (for example, dangerous intersections or analysis of previous accidents). One global platform interviewed for this case study indicated that their algorithm does account for dangerous points when determining the most optimal route. This platform also limits the amount of delivery tasks that are assigned to each parcel delivery worker, to avoid workers becoming too dependent on their platform for earning a living. Indirectly, this may also help to set limits on working hours.

Especially when under pressure, parcel delivery workers may bypass basic health and safety principles (such as refraining from taking breaks) (Huws, 2015; EU-OSHA, 2017) or road traffic rules (such as running a red light to reach a destination faster) (EU-OSHA, 2011). Christie and Ward (2019) find that young people are especially likely to do so. Similarly, when time schedules are too tight, there is a risk of speeding (OSHWiki, 2021). To date, however, data on work-related accidents involving platform workers are scarce and are generally not publicly available. Delivery riders are also at risk of being hit by a vehicle when picking up or delivering goods. The risk of having an accident increases when workers are under time pressure and are tired or distracted, for example after working for many hours or having to check their mobile phone to see where to go next (EU-OSHA, 2011; Christie and Ward, 2019; OSHWiki, 2021). The use of a mobile phone, even when 'hands free', creates a serious distraction and increases the risk of being in an accident.

In terms of **vehicle safety**, the state, maintenance and nature of the vehicle used for deliveries is critical. For example, are parcel delivery riders travelling long distances equipped with an electric bike - which allows longer distances, higher speed with reduced effort - instead of a regular bike? It has to be noted

<sup>9</sup> For more information on driving-related safety and health risks, see the OSHWiki: [https://oshwiki.eu/wiki/Driving\\_for\\_work](https://oshwiki.eu/wiki/Driving_for_work) and [https://oshwiki.eu/wiki/Driving\\_for\\_work\\_and\\_MSDs](https://oshwiki.eu/wiki/Driving_for_work_and_MSDs). For the relation between MSDs and prolonged sitting, please see: [https://oshwiki.eu/wiki/Musculoskeletal\\_disorders\\_and\\_prolonged\\_static\\_sitting](https://oshwiki.eu/wiki/Musculoskeletal_disorders_and_prolonged_static_sitting).

<sup>10</sup> Which results from a violation of, among others, Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (available at: <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32008R1272>) For more information, see: <https://echa.europa.eu/regulations/clp/labelling> and <https://echa.europa.eu/regulations/clp/understanding-clp>.

<sup>11</sup> See [https://oshwiki.eu/wiki/Road\\_safety](https://oshwiki.eu/wiki/Road_safety) and [https://oshwiki.eu/wiki/Driving\\_for\\_work](https://oshwiki.eu/wiki/Driving_for_work)

here that platform workers are typically expected to bring their own tools and equipment, such as their own bike in case of delivery work. These tools and equipment, however, may not be fit for the work (Huws, 2015; EU-OSHA, 2017; Christie and Ward, 2019). For example, when parcel delivery workers use their own van, the design of the cabin may be a poor fit, so that they cannot properly see the road, reach the driving controls (such as the steering wheel), have an uncomfortable seatbelt or a seat that cannot be adjusted, or difficulties in accessing the vehicle (for example, no steps or grips) and so on. One interviewed parcel delivery rider working through a local platform said that this platform has strict rules that workers must abide by, for example wearing mandatory clothing and a helmet provided by the platform and that is noticeable in traffic.

One of the interviewed parcel delivery workers spoke about dangerous **weather conditions** (such as snow) but indicated that the platform does not have a policy to pause or suspend deliveries in such cases. It is up to the parcel delivery riders themselves to decide. Parcel delivery riders especially spend all day outside and are exposed to adverse or extreme weather conditions (EU-OSHA, 2011). Another platform worker said that platforms 'sometimes' take into account weather conditions. This discrepancy seems logical: the more extreme the weather conditions, the higher the incentive to buy online and have goods delivered, thus increasing the demand for transport. Adverse weather conditions have been identified by previous research as a cause of stress for drivers/riders in the platform economy (EU-OSHA, 2017; Christie and Ward, 2019). Delivery riders may not have appropriate clothing for the weather (EU-OSHA, 2011), or lack protective clothing overall (such as reflective vests or helmets). A particularly relevant point here is that poor weather conditions were the occasion leading to collective action by riders in Bologna. After an episode of heavy snowfall in Bologna in the fall of 2017, a group of riders went on strike and marched to the city hall to demand decent working conditions for platform workers. This led to a tripartite social dialogue between the City Council of Bologna, trade unions and digital labour platforms and ultimately resulted in the adoption of the 'Charter of fundamental rights of digital labour in the urban context' in 2018 (EU-OSHA, 2022a).

Finally, parcel delivery workers regularly **deal with clients**, which presents both physical and psychological challenges. Common issues in dealing with clients are language issues and clients who are not satisfied with the service provided (for example, wrong parcel or long delivery time). And although the risk from aggressive, drunken and drugged clients is traditionally most observed in food delivery, it is a risk in parcel delivery too (EU-OSHA, 2011). Due to the algorithmic management and the importance of client ratings (see below), delivery platform workers may be sometimes inclined to accept and not report abusive client behaviour out of fear of receiving a negative review. With algorithmic management often offering little to no means for a reasonable dialogue regarding unfounded negative feedback and subsequent managerial decisions, which often are automated, the incentive to accept such client behaviour is often even aggravated. According to one interviewed expert, parcel delivery workers are frequently low-educated and may not know how to manage such situations, especially if they have not been trained for that. This can lead to anxiety and stress, most importantly when clients become violent, bully, (verbally) abuse or harass the parcel delivery worker (Huws, 2017; EU-OSHA, 2017). Finally, parcel delivery workers may also be exposed to other forms of violence and aggression, for example, running the risk of being robbed or exposed to road rage.

## Factors aggravating the OSH challenges in parcel delivery platform work and/or complicating OSH risk management

Although many of the OSH challenges of parcel delivery in the context of digital platform work are similar to those in the traditional labour market, the nature, organisation and conditions of digital platform work worsen the challenges and complicate OSH risk prevention and management (Huws, 2015; EU-OSHA, 2017; Bérastégui, 2021). Indeed, one of the largest differences between traditional courier companies and digital labour platforms (such as Wolt, Hajtás Pajtás, Shopopop) relates to **prevention of work-related accidents and diseases** as well as **compliance with and enforcement of applicable OSH rules and regulations** (as was corroborated by the interviewed stakeholders).<sup>12</sup>

<sup>12</sup> The difference is striking in cases where platforms employ both employees and self-employed workers with whom they do not sign an employment agreement. The different treatment, with regard to OSH, between platform worker employees and self-employed platform workers might in some cases hold up legally, but cannot be tolerated from a human rights perspective (such as the right to safe working conditions) (ECSR, 2018).



## Employment status and contractual arrangements

Many traditional companies offering courier services **typically hire (at least part of their) workers as employees**, the latter thus being covered by the full scale of social law provisions, and all relevant OSH regulations apply to both the company as an employer, and the worker as an employee. A stakeholder interviewed working as both a driver and an order-picker for a well-known multinational said that OSH rules and other regulations (such as road transport) were strictly respected in the company. Also, workload (nature of routes, and so on) and other working conditions are adapted to each driver (older drivers allocated to less stressful routes, and so on). All this for several reasons: economic and managerial efficiency, company reputation, maximum retention of drivers in a very competitive labour market arena, and so on. Nevertheless, this company also makes use of subcontractors, be it incidentally (sudden surge of activities) or structurally (during certain periods, for certain types of routes or parcels, and so on), the working conditions for drivers working for or as a subcontractor varying significantly.

This is different in the platform economy, where **parcel delivery workers are seen as self-employed freelancers and are rarely hired by the platform as employees**. In such cases, however, parcel delivery workers are not covered by the OSH regulatory framework applicable in most Member States. In this way, platforms shift costs, risks and responsibilities onto platform workers. In particular, in food delivery and passenger transport, **questions have been raised about this qualification of the labour relation** between platforms and platform workers (EU-OSHA, 2017; Tran and Sokas, 2017). Urzi Brancati et al. (2020) explain that being able to act autonomously with a high level of (task) discretion is a key element of being self-employed, but this is hardly the case in the context of transportation platform work (such as having to work in a given schedule and with rating systems determining allocation of work). Another difference with traditional road transport companies, is that platform workers seem less aware of OSH risks and hazards, although workers often think they sufficiently are (as confirmed by the interviews).

One of the interviewed delivery riders was not sure about their employment status as a delivery platform worker and believed to be working on an occasional basis. Under this system, the interviewee could work for a maximum number of days each month, receiving one-day contracts from the platform. This interviewee stressed that it is the workers themselves who are 'responsible to ensure everything is done as regards their own health and safety'. Another interviewed platform worker was an employee of a global delivery platform for one year but decided to become self-employed afterwards. The interviewee justified that choice by saying that although being an employee had some advantages, such as faster payments and being able to select the number of hours and working times through the app, the worker still had to pay for work-related and vehicle-related costs such as petrol, car maintenance, insurance, and clothing.<sup>13</sup> Non-compensation by platforms of such work-related costs is clearly a risk when workers economise in the domains of vehicle maintenance, for example neglecting to repair lights or brakes, or of protective clothing (such as purchase or replacement of a helmet) to save money. Another issue was that the platform calculated the pay per delivery according to the distance, without accounting for unforeseen events (such as traffic jams, accidents, and so on). For these reasons, the worker made the switch to being self-employed, setting up their own company and being able to deduct certain costs.

Two representatives of a global delivery platform stated that platforms are **increasingly willing to address OSH issues** (not in the least because of the increased competition on the labour market for riders/drivers) but **fear requalification of the labour relations** between the platform and its platform workers, where they would be required by law to provide training, personal protective equipment, and so on.<sup>14</sup>

<sup>13</sup> Interestingly, according to the interviewee, the platform treated the worker (almost) identically as an employee and as a self-employed worker. For instance, remuneration was calculated according to distance. However, the app did not consider the distance actually travelled but set a fixed price for both employees and self-employed workers. Also, costs made by employees or by self-employed workers were not compensated by the platform. For these reasons the interviewee has ultimately chosen to start a company in another Member State (such as Estonia, known for the ease of establishing one-man companies online) to become a 'platform partner'. As such, their company is responsible for paying taxes (instead of the platform under the applicable legislation) and is able to deduct the cost associated with the platform work. The interviewee had established a one-man company in another Member State, but is unsure about their pension and other social security rights and benefits.

<sup>14</sup> See the case study on Spain, where the Riders' Law provides that platform workers active in the delivery sector, once a series of requirements are met, are presumed to be employees, unless the platform manages to prove that it falls under one of the exclusions (which in turn is an affirmation that at least some platform workers are deemed to be classifiable as self-employed).

Nevertheless, platforms increasingly offer insurance policies to compensate for damages suffered by platform workers and liability for damages caused by platform workers. Such insurance policies are often to be subscribed to and paid for by the worker. In many cases, this is done in cooperation with major banks and insurance providers, who offer 'platform economy' packages (such as Uber and BlaBlaCar with AXA, Wolt and Deliveroo with Qover)<sup>15</sup>. Both interviewed platform workers had the option to get insurance via the platform on a voluntary basis. One parcel delivery rider working through a global platform was in an accident and was reimbursed for the delivery this person was not able to complete (as promised by the platform) but mentioned not having been paid for any other deliveries made that day.

Although parcel delivery platform workers are generally classified as self-employed, they are neither organised nor represented, and lack a collective voice to raise issues, including in the area of OSH. Despite being categorised as self-employed, a range of efforts to organise, represent and negotiate on the behalf of platform workers in the transport sector have been identified (especially in food delivery) (EU-OSHA, 2021a). One interviewee highlighted meeting up with other parcel delivery riders and staying in contact through social media. The other had a good group of colleagues doing parcel delivery as well, but they are not unionised. An interviewee also reported that the platform organises one gathering of workers every year, but has never been able to attend, due to his conflicting work schedule.

### **Algorithmic management and digital surveillance**

Algorithmic management involves the **oversight, governance and control practices conducted by software algorithms over many remote workers** (Möhlmann and Zalmanson, 2017). Algorithms are used in the allocation, organisation, monitoring and evaluation of work, as well as of platform workers' behaviour and performance. This involves the use of technologies to track workers through the device they use to connect to the platform, and of rating mechanisms often based on clients' reviews of workers that determine future task allocation, which often lack transparency.

From the COLLEEM II survey, it became clear that although platform work is generally flexible, most workers are continuously monitored, and this was especially true for transportation and delivery services (Urzi Brancati et al., 2020). For platform parcel delivery, OSH issues often avoided in traditional transport companies, include remuneration based on the distance as well as on the speed of the delivery, which together with the incentive to perform as many deliveries as possible in a given timeframe, does not curb tendencies to cut corners. The fact that some platforms allocate 'additional compensation' for deliveries at a greater distance (thus indicating that the number of deliveries in a set amount of time does influence earnings) does not help solve these issues. In this regard, Christie and Ward (2019) argue that platforms incentivise workers *'to drive or ride in ways which, from a road risk perspective, are most dangerous for example at night and in dangerous weather conditions, using a distracting work interface in an intrinsically pressured environment'* (p.125) and the couriers they spoke with reported both mental and physical health issues related to their work.

Indeed, other risks relate to workload and working hours (as per the interviewed stakeholders; also EU-OSHA, 2011; 2017; Christie and Ward, 2019; Bérastégui, 2021). Parcel delivery workers may start working very early in the morning, having to work long hours to deliver all parcels, working during the day and at night, on holidays, in weekends, and so on. This increases the risk of fatigue and is stressful. Due to algorithmic management, parcel delivery workers may refrain from taking breaks as to be able to deliver as many parcels as possible as fast as possible, to receive good ratings from clients and the platforms, and thus to be assigned more work in the future (Bérastégui, 2021). The interviewed parcel delivery worker active on the local platform said that on the platform, clients can leave a review of the parcel delivery worker which feeds into a rating system, but this rating was not visible to the worker and did not seem to influence the task allocation in any way. The interviewed parcel delivery worker using the local platform can book a shift as they desire, without repercussions, and thus appeared less affected by algorithmic management in this area. The interviewee working through the global parcel delivery platform said that the organisation of work was not stressful, as they had full control over their own work schedule, and that there is no rating system in place, so no need to rush.

However, even such practices typically *more* specific to the platform economy, such as the use of algorithmic management, customer ratings and so on, do not necessarily differ very much from systems

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workers). The effect of the presumption in practice is not yet clear. Among other issues, there is still some uncertainty among legal commentators whether this is a presumption *iuris tantum* (rebuttable) or a presumption *iuris et de iure* (irrebuttable).

<sup>15</sup> Also see Eurofound's platform economy repository.



put in practice in traditional companies as soon as technology allowed for them. The use of mobile telephones and of GPS systems for pre- and on-route planning of stops and routes has been around for decades already.<sup>16</sup> Such systems, especially when combined, allow for the tracking of workers' activities, whereabouts, driving, and not in the least for monitoring of workers' efficiency and productivity (EU-OSHA, 2021a). However, customer rating systems via email or client support, and so on, are common among traditional courier companies too. Nevertheless, in traditional companies, management is not a one-way street: workers can voice concerns to management either directly or via representatives, and worker representation is far less an issue than with platform workers doing parcel delivery work. Furthermore, traditional companies directly employ many workers. A best practice in this field is Spain's Riders' Law, which obliges platforms to provide information on the functioning of the algorithms used (cf. case study on Spain, see EU-OSHA, 2021d).

### ***Isolation, work-life conflicts and job and income insecurity***

Finally, platform work is often associated with **physical and social isolation**, an **individualisation of work**, and **work-life conflicts**. While parcel delivery platform work is indeed individual and does involve some level of physical isolation, at least some of these platform workers do appear to have contact with other workers in their field (Urzi Brancati et al., 2020; Bérastégui, 2021).<sup>17</sup> In addition, unpredictability of working schedule or long working hours experienced by parcel delivery platform workers can result in work-life conflicts, which can in turn cause sleeping problems, stress, burnout and an overall dissatisfaction with one's job and personal life (Bérastégui, 2021). Similarly, despite working in a competitive environment, it appears that there is somewhat less competition among parcel delivery platform workers than among platform workers doing other transport tasks, according to interviewed platform workers and experts. The issues related to job and income insecurity appeared less pertinent here (Bérastégui, 2021). Still, the income earned can be volatile, as parcel delivery workers using online platforms may not know whether they will be assigned tasks and how many tasks, and prices are set by the platform.

Last but not least, it is important to bear in mind that some platforms do actually 'play by all the rules' and only work with employees. In that respect, one interviewee from a local platform<sup>18</sup> stated that, since a law against undeclared work was adopted in their Member State (Hungary), which provided for strict criteria for the classification of the labour relation, the platforms qualified their workers as employees. However, the platform intermediating these services also reported that as a result of a lack of monitoring and enforcement, this law created an unlevel playing field because compliant market players are facing considerably higher costs than non-compliant market players, who, due to this lack of monitoring and enforcement, run little risk of getting caught.<sup>19</sup> Being employees, the platform workers using this platform are provided with social security, insurance for work related accidents, and so on. The platform also provides training and personal protective equipment. The interviewed platform worker further said that employees are paid a minimum salary every month, regardless of the number of deliveries performed. On top of that, a courier can earn supplementary wages depending on the speed of delivery (monitored by GPS) and the zone of delivery (each zone of the city is accorded a price, the farther the zone, the higher the price).

However, the interviewee underlined the difficulties in the market. First, because a platform acting legally needs to pay social security contributions, work accident insurance, holidays, training, protective equipment, and so on. All these costs influence the amount that is finally paid to the courier. Furthermore, despite the applicable legislation, the government does not monitor and enforce the rules properly, hence many competitors do not comply, creating an unlevel playing field by externalising mandatory costs, to fair competition, the detriment of workers' rights and the financing of the social security system. In other words, even when court cases arise, legislation leaves little room for

<sup>16</sup> A historical and well-known Belgian example was the introduction of 'Georoute' by bpost, the Belgian Post which instantly gave rise to collective action (Vanschoubroek, 2003) and even more than a decade later resulted in various issues in the field of OSH (Arnoudt, 2017). Nevertheless, even in this case there was no use of the combination of algorithmic management, continuous tracking and simultaneous evaluation of the employees involved.

<sup>17</sup> A now historical and well-known initiative that grew out of platform workers meeting up is RebelRoo. For more information, please see: <https://notesfrombelow.org/author/rebel-roo> and <https://www.weareplanc.org/rebelroo/>.

<sup>18</sup> The platform employs more than 50 employees. Also interesting: this platform does not have a rating system for individual couriers as other platform do. In case of a complaint by a client, the platform CEO will contact the courier as soon as possible and assess the situation and, if possible, resolve any problems.

<sup>19</sup> The fight against bogus self-employment has been a topical subject in the field of the fight against undeclared work and other forms of social fraud and unfair competition for decades.

discussion about the classification of the labour relations. In practice, an actual and effective monitoring and enforcement of compliance is key.

## Conclusions

Parcel delivery pre-eminently is an activity where differences between traditional companies and digital labour platforms are apparent. The OSH risks relating to the work activities performed as parcel delivery platform work are similar to those in comparable jobs in the regular economy, but are aggravated in the case of digital platform work (EU-OSHA, 2021a). More specifically, parcel delivery platform workers, as other parcel delivery workers, experience ergonomic risks linked to operating a vehicle and to handling parcels, may be exposed to dangerous substances and physical agents, are faced with road safety and vehicle safety risks (such as traffic hazards and risks or risks following from inadequate equipment or vehicle), dangerous weather conditions, and issues that emerge when having to deal with clients.

On top of this, parcel delivery platform work is carried out mostly by self-employed workers and relies on algorithmic management to allocate, organise, monitor and evaluate work as well as on semi-automated decision making without any human intervention. As mentioned by EU-OSHA (2021a), platforms use a range of techniques to control and influence platform workers' behaviour, to ensure that the clients' demand for service can be met as it emerges. These mechanisms encourage workers to work during specific time periods (for example, during the day or evenings in the case of parcel delivery workers), but also to stay online and/or work longer, and often to refrain from taking breaks. This is detrimental to platform workers' work-life balance, job and life satisfaction, and mental and physical health. Rating systems are common in parcel delivery platform work and crucially determine what tasks are assigned to whom. The pressure to maintain high ratings can become a major source of stress, increases the emotional demands of the work, and puts individual workers in direct competition with each other.

Substantial differences between traditional and platform companies emerge as regards the awareness and prevention of OSH and road safety risks, as well as the compliance, monitoring and enforcement of key rules and regulations in the field of OSH. While it must be acknowledged that some platforms contracting parcel delivery workers as self-employed do make efforts towards OSH risk prevention and management, such efforts are limited to avoid a requalification of the labour relations, which implies that most parcel delivery platform workers fall outside of the scope of the OSH regulatory framework.

The insurance policies that platforms offer are a good example of such efforts, but a closer look at some of these policies highlights that many are insufficient, especially as these generally are optional and offered to the workers in exchange for a payment as well as for other reasons, for example, as key items are not covered (such as a phone or vehicle), or in cases where a platform worker causes a traffic accident and suffers severe bodily harm. In cases where victims of such accidents would suffer lasting consequences or incapacity to take up professional activities, the worker concerned will suffer lasting financial repercussions, potentially for the rest of their life. Depending on the national regulatory framework in place, however, our research also revealed some countries where platforms are obliged to hire their workers as employees, meaning that these workers are covered by the OSH framework. That being said, unsurprisingly, many platforms aim to reap the benefits of all possible labour relations while refusing to endure costs and the downsides of a consistent choice of compliance with relevant rules and regulations. As such, platforms who refuse to hire workers as employees, state doing 'as much as possible' without risking a requalification of the legal relations with their workers.

Regarding the classification of labour relationships, much is expected from the European Commission's initiative regarding platform work and more specifically regarding the possibility of the introduction of a legal presumption of employment status or a reversal of the burden of proof.<sup>20</sup> However, as stakeholders from inspection services as well as the representative from the platform hiring workers as

<sup>20</sup> Kullmann M. 'Platformisation' of Work: An EU Perspective on Introducing a Legal Presumption. European Labour Law Journal. December 2021, available at: <https://journals.sagepub.com/doi/full/10.1177/20319525211063112>. It is a long established fact that subcontracting can be one of the perverse effects of the introduction of a legal presumption: 'Any move towards the classification of workers in platform companies as employees without tackling the employers' liability would become a lame exercise that would provide for the creation of bogus intermediaries between the workers and the platform company, with the function of employer when the presumption applies, and the unfeasibility of exerting the right of workers to bargain collectively with their employers, among other trickeries devised by platform companies' (ETUC reply to the Second phase consultation of social partners under Article 154 TFEU on possible action addressing the challenges related to working conditions in platform work, available at: <https://www.etuc.org/en/document/etuc-reply-second-phase-consultation-social-partners-under-article-154-tfeu-possible>).

employees cited above point out: legislation without sufficient monitoring and enforcement can have detrimental perverse effects. In that respect, we refer to the example of the Spanish Labour and Social Security Inspectorate (EU-OSHA, 2021a), which turned the logic around by not primarily focusing on the classification of the labour relation by the contracting parties (for example, platforms stating their workers are self-employed) but by treating the paid activities as any activity in the regular economy is treated within the framework of the fight against undeclared work.

While it must be said that certain platforms not employing their delivery drivers or riders do make certain efforts, it is clear such efforts are actively limited to avoid application of additional yet extremely relevant rules and regulations. Platforms' discourses in that respect can be simplified to: 'Our model is so novel, it does not fit into the existing social law regulatory framework'. However, these glad tidings effectively conceal a totally different truth, which is that most platforms actively do not want to comply with the existing social law framework, will actively avoid as much as possible any means of monitoring and enforcement and will only comply insofar as it cannot be avoided. The so-called 'disruptive character' of platforms is as 'disruptive' as any other practice in the field of undeclared work in particular, and of social fraud in general: extreme externalisation of costs of compliance to applicable rules and regulations resulting in an unfair competitive advantage driving compliant market players down a slippery slope which is nothing but a race to the bottom and all this to the detriment of workers' rights in particular and of the welfare state in general. One cannot simply *not* take into account the historical reasons for the development of existing rules and regulations, even more so in the field of OSH and road safety, when questioning the up-to-dateness of the legislative framework in place. Blatant forms of non-compliance clearly falling outside the scope and application of the concept of civil disobedience should be treated as any other illegal activity (cf. case study on enforcement). After all, one should not forget many forms of undeclared work, in contrast to tax fraud, for example, not only entail budgetary costs for the welfare state, but most often entail infringement of fundamental human and social rights at work (cf. supra) (cf. inspection case). Issues in the parcel delivery sector in general clearly indicate the need to enforce compliance with existing rules and regulations. Indeed, as mentioned above, traditional courier companies are increasingly using practices that are common in platforms too, notably algorithmic management and the use of non-standard contracts. In this light, one should not forget that many forms of undeclared work, in contrast to 'simple' tax fraud, for example, not only entail budgetary costs for the welfare state, but most often entail infringement of fundamental human and social rights at work and, last but not least, comes down to the creation of an unlevel playing field through unfair competition, resulting in a race to the bottom.

In comparison to traditional actors in the market, parcel delivery in the platform economy is characterised by a manifest lack of awareness of both platforms and workers of the diversity of risks and hazards in the field of parcel delivery, a staggering level of non-compliance and absence of enforcement of even the most basic and critical rules and regulations. Remediating measures taken as an 'answer' to said issues, which are mostly both actively and passively denied by all too many actors of the platform economy suffer from apparent weakness and grave lack of sufficiency and adequacy.



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Authors: Dirk Gillis (HIVA-KU Leuven), Karolien Lenaerts (HIVA-KU Leuven), Willem Waeyaert (EFTHEIA)

Project management: Maurizio Curtarelli, European Agency for Safety and Health at Work, (EU-OSHA)

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