Work Platforms

Web Landscaping Report

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Web Intelligence Hub

Feasibility study on work platforms web data retrieval

Deliverable D2 - Work platforms landscaping report

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1.0 Preliminary definitions

Since the emergence of labour-based platforms, researchers in the academic and public field have engaged in the classification of existing forms of digital labour platforms. This document presents a recognition of the criteria according to which platform work can be classified. To set the argument, a clarification of definitions needs to be provided.

As a new organisational model, digital platforms do not concern only labour intermediation. According to the classification elaborated by Srnicek (2016), five types of platforms can be identified (often in various combinations): advertising platforms (e.g. Google and Facebook), cloud platforms (e.g. Salesforce), industrial platforms (e.g. Siemens), product platforms (e.g. Spotify) and lean platforms. The latter are characterised by minimizing fixed costs and assets, labour force included. Lean platforms may be also distinguished between capital-based platforms and labour-based platforms. The former includes buying and selling platforms (such as Ebay), space rental platforms (such as Airbnb) and expense-sharing platforms (such as Blablacar). Unlike capital-based platforms, labour-based platforms (such as Uber, Deliveroo, Amazon Mechanical Turk) strictly involve the intermediation of labour services. In recognition of this fact, the scope of analysis will be limited to labour-based platforms.

In what follows we will employ the term digital labour platforms (DLPs), in line with the terminology adopted by the European Commission, to refer to services involving "actual workers who willingly subject themselves to the execution of activities commissioned by a customer/client through a digital platform" (Gandini 2021, p.7).

Digital labour platforms (DLPs) can be grouped according to the characteristics of the service delivered, or according to their business model. Despite the overlap between these two criteria, here we strictly focus on the former to select the platforms to be included in our landscaping exercise, while organizational issues (including algorithmic management) and employment conditions will be detected as variables in the analysis. The report published by the European Commission in May 2021 (CEPS 2021) provides an updated overview of the DLPs landscape in the EU27. Methodologically, the report synthetizes the main criteria used to classify DLPs by different research centres: Eurofound (2018), Joint Research Institute (Fabo et al. 2017), ILO (2021) and the Collaborative Economy and Employment (COLLEEM) research project (Urzì Brancati et al. 2020).

It is worth observing that the latest reports classify DLPs from a task-based perspective. For instance, the detailed COLLEEM's classification (2020) is mainly focused on the type of task performed – e.g. clerical and data-entry tasks, labour services, microtasks, delivery services, creative and multimedia. This shift towards a task-based classification of platform work is indicative of the increasing penetration of DLPs in the overall economy. This perspective may in fact allow the specificity of occupations to be more accurately taken into account, and to allow for DLPs to be analysed alongside other organizational models that are still active in every economic sector.

2.0 Four criteria for analysing digital labour platforms

In our analysis, this focus on a task-based perspective is relevant, because tasks are the unit of analysis used to analyse the dynamics of the labour market mediated by digital platforms once the data from the platforms will be available. For this reason, this criterion is not used for the selection of platforms to be included in the analysis.

Therefore, given the purpose of this document, we prefer a classification perspective that looks at the platform economy as a whole. By combining policy-oriented reports with academic sources, we identified four classification criteria that seem more suitable for the scope of this recognition: 1) the location of the service delivered; 2) the skill level required; 3) the number of different professions on the platform; 4) the selection process.

2.1 The location of the service delivered

A seminal DLPs classification elaborated by Codagnone et al. (2016) distinguishes between platform labour providing services that are electronically transmittable, and services requiring a physical and localised delivery. In subsequent attempts of classification, the location has been commonly acknowledged as a main criteria of distinction, both in academic research (Pais 2019; Vallas & Schor 2020), and in public reports. For instance, according to Aloisi and De Stefano (2018), DLPs may be distinguished as follows:

- *Online platforms*, connecting a multiplicity of clients and providers through the web, the work being provided remotely.
- *Offline platforms*, connecting customers with service providers who perform their tasks physically in a limited geographical space. A further distinction can be made in relation to the nature of the space where the service is provided: in public spaces (e.g. ride-hailing and delivery) or in private spaces (e.g. home repairing, domestic and care work).

The ILO typology (2021) is primarily concerned with the location of the service, distinguishing between "online web-based platforms" and "location-based platforms". Likewise, the Eurofound and COLLEEM typologies distinguish platforms in terms of the service being delivered "on location" or "online". The site of the job execution is a good indicator of the labour supply that is eligible to apply for the task. Online web-based platforms, such as Upwork and Amazon Mechanical Turk, are potentially open to a global workforce, realizing what Graham & Anwar (2019) referred to as a "planetary labour market". In these cases, labour market limits ideally coincide with the geographical expansion of the platform. In location-based platforms, by definition, the labour demand is limited to the site where the service is to be delivered.

2.2 The skill level required to perform the work

Skill level is a second widely employed classification criteria of DLPs. Fabo et al. (2017) identify five skills categories according to which platform labour may be classified: 1) low; 2) low to medium; 3) medium; 4) medium to high; and 5) high. Eurofound (2018) employs the same classification criteria. Among online web-based platforms, a distinction in terms of scale and complexity of the work (a suitably proxy of skill level) concerns the differentiation between microtask (e.g. Amazon Mechanical Turk) and freelance work (e.g. UpWork). It is noteworthy that the attribute "high/low-skilled" refers to the job task in question, rather than to the skills possessed by the provider[1] (Codagnone et al. 2016). According to Fabo et al. (2017), a skilled-centred classification of platform labour is particularly salient due to the prevalence of low-skilled work in the platform economy, that is likely to create what Huws (2014) refers to as a "cybertariat", a "large mass of data-entry workers, bike couriers and pet-sitters [which are] potentially easily replaceable" (Fabo et al. 2017, p.14). In this regard, even though these accounts do not provide a clear meaning of 'skills' as a classificatory category, low-skilled work is roughly associated with a higher degree of workers' turnover.

[1] Indeed, it is quite common to find highly educated individual performing errands in so-called low-skilled jobs.

Another element of interest concerns the assessment of skills when the matching between labour supply and demand occurs. Usually, providers are asked to prove their ability to perform the task required, while a formal accreditation of their skills (e.g. degree, educational certificates) is hardly demanded by platforms. In this regard, as the literature has extensively reported (Stark & Pais (2020), digital reputation systems (rating and ranking) influence the skills assessment before and after the execution of the job.

2.3 Diversity of occupations and tasks on the platform

A third classification criterion concerns the variety of services provided by each platform. Here, we may distinguish between single-professional and multi-professional platforms. The former type enables an interaction between customers and a specific service-provider (e.g. ride-hailing, babysits). The latter (e.g. freelance platforms such as UpWork) host a number of different occupations or tasks that refer to different occupations.

2.4 The selection process

Finally, according to Fabo et al. (2017) and Eurofound (2018) two main typologies can be identified regarding the selection of providers. The task may be assigned by the platform (e.g. food-delivery platforms) or through a direct interaction between customers and service providers, allowing for more autonomy in negotiating working conditions. In the latter case, the platform roughly works as a marketplace[2] and two sub-types of DLPs may be distinguished where: 1) clients hire service providers based on their profiles; 2) clients specify their requirements, leaving service providers to submit their offers[3]. The literature on UpWork (Jarrahi & Sutherland, 2019) notes that a negotiation process between clients and providers may occur, even outside of the platform space, especially in cases of high-skilled on-demand work. Finally, DLPs may exert a more or less strict control over providers' subscriptions, directly influencing the barriers to enter the market. As highlighted by Schor et al. (2020), low entrance barriers have a direct implication on the heterogeneity of providers, both in terms of skills and income dependency. As we have already noted, in the absence of controls over platform access, reputational mechanisms enable a form of vicarious and decentred control, jeopardising low-rated providers' participation. Nevertheless, strict access control seems so rare that it can be excluded as a relevant classification criterion[4].

3.0 Defining the scope of the analysis

The goal of this project is to implement a feasibility study for extracting information about jobs offered on work platforms.

This report presents the results of the first two phases of the analysis: Defining the boundaries of the analysis; Landscaping and website identification. These will be followed by other three phases: Platform analysis and agreement; Variable identification and platform ranking; Identify jobs, tasks and occupations.

[2] Nevertheless, the platform retains a greater selection power when it performs a pre-selection of service providers to whom the job opportunity is offered.

[3] In these cases, contest is a residual mode of providers' selection.

[4] Additionally, even when they are present, recruiting criteria are often not sufficiently transparent to be used as a classification criterion.

The first phase – Defining the boundaries of the analysis - is aimed at defining the type of website to be included in the analysis. There is a great deal of heterogeneity in platform work and there is the need to methodologically delimit the area of analysis. Some platforms are in fact unsuitable for the analysis either because they involve a restricted number of jobs (food delivery platforms such as Deliveroo) or because they are worker initiated platforms (workers offering their services) with limited task description.

Considering all the issues that have been presented in the previous paragraphs, given the purpose of this recognition, aimed at investigating the dynamics of the labour market through advertisements published through digital platforms, we suggest adopting the following perimeter of analysis of platform work.

We limit the analysis to DLPs where clients publish a job or a task advertisement to which providers can apply. Therefore, we do not consider DLPs where service providers are assigned by the platform (e.g. Deliveroo) or where clients hire service providers based on their profiles (e.g. iDoctors). Cases where the platform allows both the publication of job advertisements and the profile of providers (e.g. Upwork) will be included in the analysis; in this case web scraping will only concern job advertisements.

Moreover, we do not consider mono-professional platforms, but multi-professional ones which allow for an analysis of the task distribution. In fact, on mono-professional platforms, the task and skill distribution are either limited or absent, not allowing for a proper analysis of the labour market and of the skills demanded on work platforms.

Therefore, considering these criteria, the DLPs types included will be multi-professional, and the selection process will be based on clients publishing a job advertisement to which providers can apply. DLPs can then vary according to the location of the service and the skills required by the task, configuring these alternatives:

- Low-to-medium skilled, location-based service (e.g. Jobby)
- Low-to-medium skilled, online web-based service (e.g. Amazon Mechanical Turk)
- High skilled, location-based service (e.g. Houzz)
- High skilled, online web-based service (e.g. UpWork, Fiverr)

Table 1. Criteria for inclusion in platform landscaping: green for inclusion, red for exclusion

Location of the service delivered	Online web-based service	Location-based service
Skill level required	Low-to-medium	High
Diversity of occupations and tasks	Mono-professional	Multi-professional
The selection process	Tasks assigned by the platform	Tasks assigned through a direct interaction between customers and service providers:
		where clients hire service providers based on their profile;
		where clients specify their requirements, leaving service providers to submit their offers

The goal of the second phase - Landscaping and website identification – is to identify a selection of the most relevant websites that will be used for the analysis. The following paragraphs describe the method and the main results.

4.0 Methods

After defining the scope of the analysis of DLPs, five countries have been selected as the focus of the landscaping exercise: Bulgaria, France, Germany, Italy, Spain. Each country has been analysed by an Individual Country Expert. The first step involved desk research where pre-existing datasets have been analysed and cleaned by excluding platforms outside of the scope of the analysis described above. The second step was aimed at extending these databases by identifying the most prominent DLPs operating in each country. Finally, each DLP has been classified based on operational variables which were identified as most essential to the analysis, and which are described below. Individual country experts analysed each platform in detail by accessing them and extracting the relevant information. In several cases ICES have accessed the platforms both from the demand side (i.e., a firm offering a task or job) and from the provider supply side (an individual looking for a job). In this way a more complete picture of the information contained in the DLPs can be obtained.

4.1 Description of operational variables

This section outlines the operational variables which guided the data collection and the coding scheme utilised in the analysis. The first group of variables concerns the structural features of the DLPs which were analysed, while the second concerns the availability of certain information to service providers on the DLP.

4.1.1 Structural features

Platform name refers to the official name of the DLP.

Website refers to the URL of the DLP.

Country indicates the countries where the DLP is active, or alternatively, countries where service providers could apply for jobs on the platform. Here, the researchers could select between national, multinational and global platforms. DLPs identified as operating in one country were coded with their respective country codes: 'BG' (Bulgaria), 'DE' (Germany), 'ES' (Spain), 'FR' (France) or 'IT' (Italy). Platforms operating in one of the five countries selected plus at least one more country were coded as 'Multinational'. Finally, platforms operating in all five countries and across continents were coded as 'Global'.

Location refers to the city where the headquarters of the DLP is based.

Service refers to the space where the services available on the platform can be provided. For this variable, researchers could select between three codes. DLPs offering services exclusively in a particular geographical space were coded as 'Location based'. Alternatively, DLPs offering services that are delivered online were coded as 'Web based'. Finally, DLPs which offered a combination of both kinds of services were coded as 'Both'.

Skills refers to skill level required by the service provider to complete jobs on the DLP. Here, researchers could select between the codes 'Low to medium', 'High', or 'Both'.

Skills evaluation refers to the existence of any kind of assessment/proficiency test on the DLP, to be taken directly on the platform, which evaluate the service provider's capability to effectively deliver a service. Researchers could select between the codes 'Yes, credentials', 'Yes, platform Evaluation', 'Yes, Both' or 'No'. DLPs which require a CV, cover letter, or a pre-recorded video or audio introduction were coded as 'Yes, credentials'. DLPs which require users to pass a technical test during the registration process (e.g., completing a sample audio transcription' were coded as 'Yes, platform evaluation'. DLPs requesting a combination of both kinds of evaluation were coded as 'Yes, both'. Finally, DLPs which included neither of these forms of evaluation were coded as 'No'. We note that whether such tests were mandatory or optional for users was not deemed as relevant, meaning that this variable seeks to capture the presence or non-presence of such evaluation mechanisms.

Algorithmic management refers to whether the DLP uses any form of algorithmic management to pre-select or filter candidates in the job application process. Platforms which pre-select candidates for a job advertisement were coded as 'Yes, pre-selection'. Meanwhile, platforms that did not pre-select candidates but prioritised or ranked them based on certain criteria were coded as 'Yes, order'. Alternatively, platforms which did not appear to utilize any form of algorithmic management in the selection of candidates were coded as 'No'.

Sectors refers to the sectors of economic activity in which the DLP offers jobs. For the purposes of this variable, we relied on the NACE rev.2 classification, which is the standard classification of economic activities in the European Community.

Jobs refers to specific jobs available on the DLP. Researchers were asked to use the same labels used by the platforms to specify which kinds of occupations are requested on the platform.

Work type classifies DLPs based on the kinds of jobs they offer. DLPs which primarily offered jobs that identify well defined activities for a limited period were coded as 'Tasks', while DLPs which offered jobs for an extended time or involved the delivery of complex outputs were coded as 'Projects'. Alternatively, platforms that offered a combination of both categories were coded as 'Both'.

Client type classifies DLPs based on the type of client or end-user of the services offered on the platform. DLPs whose activities were oriented towards providing services to other commercial entities were coded as 'B2B', while DLPs which predominantly targeted consumers were coded as 'B2C'. Alternatively, DLPs which oriented themselves to both types of clients were coded as 'Both'.

Profit distinguishes profited-oriented from non-profit oriented DLPs. Accordingly, the researchers coded profit-oriented DLPs as 'Yes', and non-profit-oriented DLPs as 'No'.

Access to job offers refers to whether a DLP limits the visibility of job offers to registered users or not. DLPs which required service providers to register on the platform prior to being able to view job offers were coded as 'Registration'. Alternatively, DLPs which did not feature this type of limitation to access were coded as 'Open'.

Estimated size refers to the estimated numerical size of the DLP based on information openly provided by the platform. Given the irregularity of the indicator used by platforms to report their size, the researchers were requested to record the type of indicator used (e.g., number of job postings, number of freelancers, number of companies subscribed).

Contact is a field where researchers were asked to provide, where available, the e-mail address and telephone number of an appropriate employee of the DLP, who might serve as a point of reference in the subsequent phase of the project.

4.1.2 Information availability

As indicated above, this group of variables refers to the availability of certain information to users on the platform. The high degree of variability between the information provided for job offers, even within a single DLP, meant that a 'fuzzy' coding scheme was adopted, in place of a strict binary 'Yes' or 'No'. Accordingly, for this group of variables, the researchers had to select one of three codes: 'Yes, mandatory', 'Yes, optional', or 'No'. This means that in cases where this information was generally, but not always available, the field was coded 'Yes, optional'.

Title refers to the availability of titles for jobs advertised on the DLP.

Price refers to whether a price offered as payment for the completion of the job is available on the DLP. Note that regardless of whether the price advertised was an estimate or an exact sum was not deemed relevant.

Hours needed refers to the availability of information regarding the estimated number of hours necessary to complete jobs advertised on the DLP.

Duration refers to the availability of information regarding either a) the duration of employment or b) a deadline for completion of the jobs advertised on the DLP. Note that, the availability of either type of information was sufficient for this field to be coded as 'Yes, mandatory' or 'Yes, optional', as appropriate.

Experience level refers to whether the jobs advertised on the DLP specify a requirement or preference for applicants in terms of their experience with the advertised type of work.

One time / repeated project refers to whether the jobs advertised on the DLP specify whether the offered job is a discrete, one-off form of employment, or whether there is the possibility for repeated or continuous employment.

Skills and expertise refer to whether the jobs advertised on the DLP specify the skills, expertise or capabilities desired by the employer to qualify for a job.

Hourly rated / project budget refers to whether the jobs advertised on the DLP include information regarding whether payment for the job is determined on an hourly, waged basis or if there is an estimated or set budget for the job.

Location (online / offline) refers to whether the jobs advertised on the DLP include information regarding whether the job may be completed on-site or offline.

Publication date refers to whether the jobs advertised on the DLP specify a publication date for jobs offered. In this case, the researchers could select from the codes 'Yes' or 'No'.

Expiration date refers to whether the jobs advertised on the DLP specify an expiration date for jobs offered. In this case, the researchers could select from the codes 'Yes' or 'No'.

Classification system for jobs/skills refers to the type of classification system that the DLP uses to rank job advertisements. Here, the researchers could select 'Skills' when the tag used refers to skills, 'Jobs' when referring to the occupation, 'Both' when both categories are used, or 'No' in cases where no classification system could be identified.

5.0 Results

The following section presents the results of the study and discusses the results for each variable described above. Except for Table 2 ('Distribution of DLPs by country'), the results have been organised such that each variable is presented across two tables.

The first reports the distribution of the variable across all the platforms operating in each country, whether DLP being national, multinational or global. We emphasize that in these tables, DLPs are recurring and may be counted more than once. For example, the column FR(all) includes all the DLPs which operate in France regardless of whether they have been classified as FR(national), Global, or Multinational DLPs. A DLP which operates in each of the five selected countries would therefore be counted once under the columns BG(all), DE(all), ES(all), FR(all) as well as IT(all).

The second table disaggregates these results and illustrates the occurrence of each variable across national, multinational and global DLPs. This classification is mutually exclusive, meaning that any DLP has been counted only once, as a DLP must be either national, multinational or global. Accordingly, the column 'Total' represents the total number of unique DLPs.

5.1 Structural features

The following section describes the results for the dataset, focusing on the variability across the structural features identified above.

Table 2. Distribution of DLPs by country.

	National	Multinational	Global	Total
BG	4	3	14	**21**
DE	7	12	14	**33**
ES	3	13	14	**30**
FR	22	15	14	**51**
IT	10	15	14	**39**
Total	**46**	**58 (21 unique)**	**70 (14 unique)**	**174 (81 unique)**

Overall, in the 5 countries analysed 174 DLP have been detected out of which 81 unique. With regards to the distribution of DLPs in terms of their operation on a national, multinational or global scale, the results indicate the following. First, of all the platforms studied, 14 DLPs were active across multiple continents as well as in each of the five selected countries. A similar number of multinational platforms was identified, meaning, DLPs which operate in at least one of the five countries selected, plus one additional country. The outlier here was Bulgaria which featured only 3 multinational DLPs. With regards to platforms operating on a purely national scale, Spain featured the lowest proportion (10%, or 3 out of 30), while France featured the highest proportion (43%, or 22 out of 51).

Table 3. Distribution of DLPs by job offers per economic sector, aggregated results.

		BG (all)	DE (all)	ES (all)	FR (all)	IT (all)	TOTAL
A	AGRICULTURE, FORESTRY AND FISHING	2	3	2	3	2	12
B	MINING AND QUARRYING	1	1	1	1	1	5
C	MANUFACTURING	2	4	2	4	4	16
D	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY	1	4	3	3	10	21
E	WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES	0	0	0	1	0	1
F	CONSTRUCTION	9	12	11	13	19	64
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES	6	10	8	13	9	46
H	TRANSPORTATION AND STORAGE	4	8	6	8	6	32
I	ACCOMMODATION AND FOOD SERVICE ACTIVITIES	2	4	2	6	2	16
J	INFORMATION AND COMMUNICATION	15	25	22	34	22	118
K	FINANCIAL AND INSURANCE ACTIVITIES	8	12	12	10	12	54
L	REAL ESTATE ACTIVITIES	2	0	0	1	0	3
M	PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES	13	25	21	21	27	107
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	10	17	16	20	16	79
O	PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY	1	1	1	1	1	5
P	EDUCATION	7	10	8	13	8	46
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	3	5	5	7	5	25
R	ARTS, ENTERTAINMENT AND RECREATION	9	14	18	18	14	73
S	OTHER SERVICE ACTIVITIES	2	7	6	7	9	31
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS- AND SERVICES-PRODUCING ACTIVITIES OF HOUSEHOLDS FOR OWN USE	1	3	3	8	8	23
U	ACTIVITIES OF EXTRATERRITORIAL ORGANISATIONS AND BODIES	0	0	0	0	0	0

With regards to the coverage of DLPs across economic sectors, the data set indicates various patterns. First, certain sectors were entirely underrepresented across the whole data set, namely: '(A) Agriculture, forestry and fishing', '(B) Mining and Quarrying', '(C) Manufacturing', '(D) Electricity, gas, steam and air conditioning supply', '(E) Water supply, sewerage, waste management and remediation activities', '(I) Accommodation and food service activities', '(L) Real estate activities', '(O) Public administration and defence; compulsory social security' and '(U) Activities of extraterritorial organisations and bodies'. To the contrary, the following sectors were generally overrepresented across the board: '(F) Construction', '(J) Information and communication', '(M) Professional, scientific and technical activities', '(N) Administrative and support service activities' and '(R) Arts, entertainment and recreation'. This is consistent with the type of jobs that are typically performed in these sectors, which lend themselves to be divided into tasks or activities that can be offered on DLPs.

Table 4. Distribution of DLPs by job offers per economic sector, disaggregated by national, multinational and global.

		BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	MULTINATIONAL	GLOBAL	TOTAL
A	AGRICULTURE, FORESTRY AND FISHING	0	1	0	1	0	0	4	4
B	MINING AND QUARRYING	0	0	0	0	0	0	1	1
C	MANUFACTURING	0	2	0	2	2	1	1	8
D	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY	0	1	0	0	6	4	0	11
E	WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES	0	0	0	1	0	0	0	1
F	CONSTRUCTION	2	3	0	4	8	6	6	29
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES	0	2	0	4	1	4	5	16
H	TRANSPORTATION AND STORAGE	0	3	1	3	1	2	3	13
I	ACCOMMODATION AND FOOD SERVICE ACTIVITIES	0	2	0	4	0	0	2	8
J	INFORMATION AND COMMUNICATION	1	5	2	14	2	12	12	48
K	FINANCIAL AND INSURANCE ACTIVITIES	0	2	0	0	1	5	7	15
L	REAL ESTATE ACTIVITIES	2	0	0	1	0	0	0	3
M	PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES	0	6	2	3	7	11	11	40
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	0	3	1	6	1	10	8	29
O	PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY	0	0	0	0	0	0	0	0
P	EDUCATION	0	3	0	4	0	4	6	17
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	0	2	1	3	1	2	3	12
R	ARTS, ENTERTAINMENT AND RECREATION	1	2	3	5	1	9	7	28
S	OTHER SERVICE ACTIVITIES	0	4	1	3	4	5	1	18
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS- AND SERVICES-PRODUCING ACTIVITIES OF HOUSEHOLDS FOR OWN USE	0	1	1	4	5	4	0	15
	ACTIVITIES OF EXTRATERRITORIAL ORGANISATIONS AND BODIES	0	0	0	0	0	0	0	0

An examination of the disaggregated data allows some additional insights. Once again, certain sectors are overrepresented across many cases. For instance, '(J) Information and communication' was the most frequently identified sector, with a count that was particularly high in the case of national DLPs in Germany (71.4%), Spain (66.7%) and France (63.6%), however to a lesser extent in Bulgaria (25%) and Italy (20%). Notably a very high number of global DLPs also listed jobs in this sector (85.7%), and to a lesser extent, multinational DLPs (57.1%). Likewise, '(M) Professional, scientific and technical activities' was identified across a high number of DLPs in Germany (85.7%), Italy (70%) and Spain (66.7%), as well as DLPs that were operating on a global scale (78.6%), and to a moderate extent across multinational DLPs (52.4%).

Despite being generally underrepresented across the data set, the count of some of these sectors was disproportionally high across national-level DLPs in certain countries. For example, while '(L) Real Estate Activities' was one of the least commonly identified sectors, half of the Bulgarian DLPs (2 out of 4) offered jobs in this sector. Likewise, among Italian DLPs, '(D), Electricity, gas, steam and air conditioning supply' was identified in 6 of 10 cases, and '(T) Activities of households as employers' counted in 5 of 10 cases. Similarly, 3 of 7 German national DLPs offered jobs in (P) Education, and 4 of 7 for the sector (S), Other service activities.

Table 5. Distribution of DLPs by place where services are delivered, location vs. web based, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Location based	6	12	9	17	17
Web based	7	13	13	14	13
Both	8	8	8	20	9
Total	**21**	**33**	**30**	**51**	**39**

The aggregated results illustrate that web-based work was most commonly identified among platforms based in Spain (43.3%), followed by Germany (39.4%), Italy and Bulgaria (33.3% respectively), and France (27.5%). DLPs operating in Italy were most likely to offer location-based work (43.6%), followed by Germany (36.4%), France (33.3%), Spain (30%), and Bulgaria (28.6%). DLPs operating in France were the most likely to offer both types of work (39.2%), followed by Bulgaria (38.1%), Spain (26.7%), Germany (24.2%) and finally, Italy (23.1%).

Table 6. Distribution of DLPs by place where services are delivered, location vs. web based, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Location based	2	4	0	7	7	12	2	**34**
Web based	0	2	2	3	2	6	6	**21**
Both	2	1	1	12	1	3	6	**26**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When results are disaggregated by national, multinational and global DLPs further inferences can be made. When only national-level DLPs are considered, the highest share offering web-based work were found in Spain (66.7%), followed by Germany (28.6%), Italy (20%), and France (13.6%), while none of the national DLPs operating in Bulgaria offered only web-based work. Furthermore 42.9% of global DLPs and 28.6% of multinational DLPs offered web-based work.

With respect to location-based work, none of the DLPs operating only in Spain offered these types of jobs, while the highest figures were found among Italian DLPs (70%), followed by Germany (57.1%), Bulgaria (50%) and finally France (31.8%). Moreover location-based work was offered by 57.1% of multinational DLPs, and only 14.3% of global DLPs.

When considering platforms which offered both types of work, France ranked highest (54.5%), followed by Bulgaria (50%), Spain (33.3%), Germany (14.3%), and Italy (10%). The proportion of global DLPs offering both kinds of work (42.9%) was much higher than that of multinational DLPs (14.3%).

Table 7. Distribution of DLPs by skill-level required for jobs offered, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Low to medium	2	6	6	8	17
High	11	16	15	27	14
Both	8	11	9	16	8
Total	**21**	**33**	**30**	**51**	**39**

When considering the types of jobs offered by platforms on the basis of the required skill-level, the following results emerge. First, low to medium skill-level jobs are clearly the most prevalent among DLPs operating in Italy (43.6%), followed by Spain (20%), Germany (18.2%), France (15.7%) and Bulgaria (9.5%).

The differences regarding high skill work do not appear to be as stark, with the highest number being among DLPs active in France (52.9%), Bulgaria (52.4%), Spain (50%), Germany (48.5%) and Italy (35.9%).

In terms of the proportion of DLPs offering both types of work, the highest number prevails among platforms in Bulgaria (38.1%), Germany (33.3%), France (31.4%), Spain (30%) and Italy (20.5%).

Table 8. Distribution of DLPs by skill-level required for jobs offered, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Low to medium	0	1	0	1	9	8	1	**20**
High	2	3	2	14	1	7	9	**38**
Both	2	3	1	7	0	6	4	**23**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

Disaggregating the distribution of platforms on the basis of the required skill-level, some patterns appear even more pronounced. In terms of low to medium skilled work offered by national DLPs, a highly polarised picture appears with Italy clearly with the highest share (90%), followed by Germany (14.3%), France (4.5%). Low to medium skill work was not offered by any national Bulgarian or Spanish platforms. The respective figures were higher for multinational DLPs (38.1%) than for global DLPs (7.1%).

The results are less skewed regarding high skill work, with the highest number of offers among platforms active in Spain (66.7%), followed by France (63.6%), Bulgaria (50%), Germany (42.9%) and finally Italy (10%). High skill work was more likely to be offered by global DLPs (64.3%) than for multinational ones (33.3%).

In terms of platforms offering both types of work, the highest proportion at the national level was among DLPs in Bulgaria (50%) followed by Germany (42.9%), Spain (33.3%) and France (31.8%), while no platforms in Italy offered both types of work. Multinational and global platforms were equally likely to offer both types of work (28.6%).

Table 9. Distribution of DLPs by type of skills evaluation, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, credential	12	17	13	16	13
Yes, platform evaluation	3	4	5	7	6
Both	2	3	2	3	4
No	4	9	10	25	16
Total	**21**	**33**	**30**	**51**	**39**

The aggregate results for skills evaluation on platforms indicate certain patterns. First, across all cases, the evaluation of credentials is more common than platform evaluation via technical tests. In terms of credentials, the highest proportion was identified among platforms active in Bulgaria (57.1%), followed by Germany (51.5%), Spain (43.3%), Italy (33.3%) and finally France (31.4%). The variability is less apparent in terms of platform evaluation where the highest proportion was identified among platforms in Spain (16.7%), followed by Italy (15.4%), Bulgaria (14.3%), France (13.7%) and finally Germany (12.1%). The highest proportion of platforms requiring both kinds of evaluation tended to be in Italy (10.3%), closely followed by Bulgaria (9.5%), Germany (9.1%), and to lesser extents Spain (6.7%) and France (5.9%). DLPs not requiring either kind of test were most frequent in the case of France (49%), followed by Italy (41%), France (33.3%), Germany (27.3%) and Bulgaria (19%).

Table 10. Distribution of DLPs by type of skills evaluation, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, credential	4	5	1	4	1	6	7	**28**
Yes, platform evaluation	0	0	0	2	1	3	3	**9**
Both	0	1	0	1	1	2	1	**6**
No	0	1	2	15	7	10	3	**38**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the results for skills evaluation are disaggregated a clearer picture emerges. First, a very similar pattern appears in terms of the prevalence of credential evaluation. At the national level, all Bulgarian platforms studied utilised only this form of evaluation, while a very high tendency also prevailed among German platforms (71.4%), and to lesser extents, in Spain (33.3%), France (18.2%) and Italy (10%). Meanwhile credential evaluation was more frequent among global DLPs (50%) than among multinational ones (28.6%).

Forms of platform evaluation were very uncommon among DLPs at the national level, identified only in Italy (10%) and France (9.1%), while these kinds of evaluation were absent in the German, Bulgarian and Spanish cases. At the same time, the results demonstrate that platform evaluation was much likely to occur in the cases of global DLPs (21.4%) and to a slightly lesser extent, multinational DLPs (14.3%).

At the national level, the tendency to employ both kinds of evaluation was highest among DLPs in Germany (14.3%), followed by Italy (10%) and France (4.3%), while no platforms active only in Bulgaria and Spain utilised both kinds of evaluation. Similarly, only 9.5% of multinational platforms and 7.1% of global platforms were found to use both kinds of evaluation.

The results reveal a much higher variability when considering the absence of any kind of evaluation system, with the highest proportion identified among DLPs in Italy (70%), France (68.2%), Spain (66.7%), and Germany (14.3%). Once again, the respective figure among Bulgarian platforms was null, given that all national DLPs examined utilised only credential evaluation. Finally, the tendency for multinational platforms (47.6%) to utilise neither kind of evaluation was higher than among global platforms (21.4%).

Overall skill evaluation is more widespread among multinational DLPs probably reflecting a uniform internal organization structure and among platforms more focussed on high skill jobs.

Table 11. Distribution of DLPs by type of algorithmic management, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, order	6	10	8	12	8
Yes, pre-selection	5	6	10	17	18
No	10	17	12	22	13
Total	**21**	**33**	**30**	**51**	**39**

The results show that the majority of platforms use some type of algorithmic management to filter or pre-select candidates in the job application process. The aggregated results show that the ranking or prioritisation of candidates ('Yes, order') was quite evenly distributed across all cases, most common among DLPs operating in Germany (30.3%), followed by Bulgaria (28.6%), Spain (26.7%), France (23.5%) and Italy (20.5%). Regarding platforms which pre-selected candidates for job advertisements, the tendency was clearly highest among platforms in Italy (46.2%), followed by Spain and France (33.3% respectively), Bulgaria (23.8%) and finally Germany (18.2%). Meanwhile, the absence of any form of algorithmic management was highest among DLPs active in Germany (51.5%), closely followed by Bulgaria (47.6%), France (43.1%), Spain (40%) and Italy (33.3%).

Table 12. Distribution of DLPs by type of algorithmic management, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, order	1	3	0	4	1	4	5	**18**
Yes, pre-selection	1	0	3	3	8	11	1	**27**
No	2	4	0	0	1	6	8	**21**
Total	**4**	**7**	**3**	**7**	**10**	**21**	**14**	**66**

When the results for the prevalence of algorithmic management are disaggregated, the following patterns emerge. First, the use of ordering was most common among national platforms in France (57.1%), followed by Germany (42.9%), Bulgaria (25%) and Italy (10%), while no ordering was identified in the Spanish case. Meanwhile, ordering was more common among global (35.7%) than multinational DLPs (19%).

In terms of the use of pre-selection of candidates, a much higher variability appears. At the national level, all platforms in Spain relied on pre-selection, closely followed by Italy (80%), France (42.9%) and to a lesser extent, Bulgaria (25%), while no DLPs in Germany utilised this mode of algorithmic management. Pre-selection was much more common among multinational DLPs (52.4%) than among global DLPs (7.1%).

Regarding the absence of either kind of algorithmic management, the tendency was highest among platforms in Germany (57.1%), followed by Bulgaria (50%) and Italy (10%), while in the cases of Spain and France, the respective figures were 0. The tendency to utilise no kind of algorithmic management was higher among global DLPs (57.1%) than among multinational ones (28.6%).

Table 13. Distribution of DLPs by work type offered, tasks vs. projects, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Tasks	2	7	6	14	8
Projects	9	17	18	29	19
Both	10	9	6	8	12
Total	**21**	**33**	**30**	**51**	**39**

When considering the distribution of results in terms of the type of work offered, the aggregate results report the following patterns. First, platforms tend to offer project-based work more frequently than task-based work. Task-based work was most common in cases of platforms active in France (27.5%), followed by Germany (21.2%), Italy (20.5%), Spain (20%), and Bulgaria (9.5%). The proportion of platforms offering primarily project-based work was highest in Spain (60%), followed by France (56.9%), Germany (51.5%), Italy (48.7%) and Bulgaria (42.9%). Finally, the tendency for DLPs to offer both kinds of work was clearly highest among platforms operating in Bulgaria (47.6%), followed by Italy (30.8%), Germany (27.3%), Spain (20%) and France (15.7%).

Table 14. Distribution of DLPs by work type offered, tasks vs. projects, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Tasks	0	1	1	6	2	7	1	**18**
Projects	0	4	2	15	3	11	8	**43**
Both	4	2	0	1	5	3	5	**20**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the distribution of platforms in terms of work type offered is disaggregated, the following patterns emerge. First, task-based work was most common among national platforms active in Spain (33.3%), followed by France (27.3%), Italy (20%), and Germany (14.3%), while no platforms studied in Bulgaria offered task-based work only. The respective figures report a higher tendency for task-based work among multinational DLPs (33.3%) than global DLPs (7.1%).

Next, the tendency for project-based work at the national level was highest among DLPs in France (68.2%), Spain (66.7%), Germany (57.1%), and to a lesser extent, Italy (30%). Again, no national platforms in Bulgaria offered project-based work only. The proportion of global DLPs offering projects (57.1%) was slightly higher than among multinational DLPs (52.4%).

Finally, when considering the distribution of DLPs offering both kinds of work, the highest share at the national level was found in Bulgaria, where all platforms advertised both kinds of work, followed by Italy (50%) and to a lesser extent Germany (28.6%) and France (4.5%). None of the national DLPs examined in Spain offered both kinds of work. Finally, global DLPs were more likely to offer both kinds of work (35.7%) than multinational DLPs (14.3%).

Table 15. Distribution of DLPs by client type, B2B vs. B2C, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
B2B	14	22	20	33	18
B2C	1	3	5	10	16
Both	6	8	5	8	5
Total	**21**	**33**	**30**	**51**	**39**

Concerning the distribution of DLPs on the basis of their targeted type of client, we observed the following results. First, there was a clear preference towards B2B over B2C clients in all cases studied. The distribution of platforms oriented towards B2B clients was quite similar among all cases studied. In the cases of Bulgaria, Spain and Germany this accounted for 66.7% of platforms, 64.7% of DLPs active in Spain, and finally, 46.2% of DLPs operating in Italy.

The orientation towards B2C clients reveals a slightly more mixed picture. The preference towards B2C clients was clearly highest among platforms in Italy (41%), followed by France (19.6%), Spain (16.7%), Germany (9.1%) and Bulgaria (4.8%).

Conversely the highest proportion of platforms oriented to both types of clients was found in Bulgaria (28.6%), followed by Germany (24.2%), Spain (16.7%), France (15.7%) and Italy (12.8%).

Table 16. Distribution of DLPs by client type, B2B vs. B2C, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
B2B	1	4	2	15	0	10	12	**44**
B2C	0	0	1	5	10	7	0	**23**
Both	3	3	0	2	0	4	2	**14**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

At the national level, all of the DLPs in Italy offered work exclusively oriented towards B2C clients, followed by platforms in Spain (33.3%) and France (33.3%), while none of the national DLPs in Germany and Bulgaria featured in this category. Likewise, none of the global DLPs were oriented towards B2C clients, as opposed to 33.3% of multinational platforms.

Regarding orientation towards B2B clients, the highest proportion was found among national platforms in France (68.2%) and Spain (66.7%), and to a lesser extent in Germany (57.1%) and Bulgaria (25%). This tendency was much more pronounced among global DLPs (85.7%) than their multinational counterparts (47.6%).

Finally, the highest proportion of DLPs oriented towards both kinds of clients was found in Bulgaria (75%), followed by Germany (42.9%) and France (9.1%), while none of the platforms operating exclusively in Spain and Italy focused on both kinds of clients. Multinational DLPs were slightly more likely (19%) to target both kinds of clients than global DLPs (14.3%).

Table 17. Distribution of DLPs, profit vs. non-profit, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Profit	19	33	30	50	39
Non profit	2	0	0	1	0
Total	**21**	**33**	**30**	**51**	**39**

In terms of DLPs' organizational models and orientation towards profit, a very clear tendency appears among all cases studied. With few very exceptions, nearly all the platforms included in the data set operated on a for-profit basis.

Table 18. Distribution of DLPs, profit vs. non-profit, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Profit	2	7	3	21	10	21	14	78
Non profit	2	0	0	1	0	0	0	3
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	81

When these results are disaggregated into their respective components, a slightly more nuanced situation is revealed. While business models oriented towards profit clearly dominate, an outlier appears among Bulgarian national DLPs where only 50% of platforms were guided by the profit motive.

Table 19. Distribution of DLPs by access to job offers, open vs. registration, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)	Total
Open	6	15	13	27	11	72
Registration	15	18	17	24	28	102
Total	**21**	**33**	**30**	**51**	**39**	**174**

When examining the distribution of DLPs into the platforms limitations to access to job offers for non-registered users, the find the following results. First, except for platforms operating in France, there is a slight preference towards limiting access to registered users. Open access to job offers was highest for platforms operating in France (52.9%), followed by Germany (45.5%), Spain (43.3%), Bulgaria (28.6%) and Italy (28.2%). Conversely, the proportion of platforms which limited access to registered users was highest in Italy (71.8%) and Bulgaria (71.4%), followed by Spain (56.7%), Germany (54.5%) and France (47.1%).

Table 20. Distribution of DLPs by access to job offers, open vs. registration, disaggregated by national, multinational, and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Open	0	5	2	16	1	28	5	38
Registration	4	2	1	6	9	26	9	43
Total	**4**	**7**	**3**	**22**	**10**	**54**	**14**	81

When access to job offers is disaggregated into its components, we find the following results. First, at the national level, all the platforms active in Bulgaria limited access to registered users, as did 90% of platforms in Italy. To a much lesser extent, access was limited by platforms in Spain (33.3%), Germany (28.6%) and France (27.3%). Global platforms were slightly more likely to limit access (64.3%) than multinational platforms.

5.2 Information availability

The following section describes the results for the dataset, focusing on the distribution of platforms in terms of the variables grouped under information availability.

Table 21. Distribution of DLPs by information availability of job title, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	15	30	29	43	33
Yes, optional	4	0	0	0	0
No	2	3	1	8	6
Total	**21**	**33**	**30**	**51**	**39**

Regarding the availability of information pertaining to the titles of jobs advertised, DLPs strictly require clients to include a title with the job advertised. The highest frequency was among platforms operating in Spain (96.7%), followed by Germany (90.9%), Italy (84.6%), France (84.3%) and Bulgaria (71.4%). 19% of platforms active in Bulgaria permitted their clients to choose whether this information was included. A small number of platforms did not feature any job titles, with the proportion being highest among platforms in France (15.7%), Italy (15.4%), Bulgaria (9.5%), Germany (9.1%) and Spain (3.3%).

Table 22. Distribution of DLPs by information availability of job title, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	7	3	17	7	19	13	**66**
Yes, optional	4	0	0	0	0	0	0	**4**
No	0	0	0	5	3	2	1	**11**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the data for the availability of job title is disaggregated, a similar pattern holds, with some exceptions. A strong preference remains for a strict requirement of job title among all national, multinational and global platforms, with the exception of Bulgaria, where clients were given the option to include job title. With regards to platforms that featured no such requirement, the frequency was highest, at the national level, among DLPs operating in Italy (30%) and France (22.7%). Meanwhile, the proportion of multinational platforms that did not include such a requirement (9.5%) was slightly higher than that of global platforms (7.1%).

Table 23. Distribution of DLPs by information availability of job price, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	5	13	13	16	19
Yes, optional	12	16	13	13	11
No	4	4	4	22	9
Total	**21**	**33**	**30**	**51**	**39**

In terms of the availability of information concerning job price on the platforms studies, we found the following the results. Generally, while this information was available across all cases, we found differences in terms of whether platforms imposed a strict requirement or allowed clients the option to choose whether to include this information.

The proportion of platforms which did not include any such information was clearly highest among DLPs active in France (43.1%), followed by Italy (23.1%), Bulgaria (19%), Spain (13.3%) and Germany (12.1%). The proportion of platforms which allowed clients the option to choose whether to include price in their advertisements was highest among platforms in Bulgaria (57.1%), followed by Germany (48.5%), Spain (43.3%), and to a lesser extent in Italy (28.2%) and France (25.5%). The tendency of platforms to include a strict requirement to include job price was highest in Italy (48.7%), followed by Spain (43.3%), Germany (39.4%), France (31.4%) and Bulgaria (23.8%).

Table 24. Distribution of DLPs by information availability of job price, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	1	0	2	5	14	3	**25**
Yes, optional	2	5	3	2	1	3	9	**25**
No	2	1	0	18	4	4	2	**31**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the results for the availability of job price are disaggregated, a more polarised picture appears. First, the proportion of platforms which did include any information regarding job price at the national level was clearly highest in France (81.8%), followed by Bulgaria (50%), Italy (40%) and Germany (14.3%).

Meanwhile all of the platforms operating at the national level in Spain allowed their clients to choose whether to provide information regarding job price, as did 71.4% of DLPs in Germany, 50% of DLPs in Bulgaria, but only 10% of DLPs in Italy and 9.1% of DLPs in France. This information tended to be optional among global DLPs (64.3%) compared to multinational DLPs (14.3%).

Finally, a strict requirement to include job price was highest among DLPs in Italy (50%), followed by Germany (14.3%) and France (14.3%), while in Bulgaria and Spain, no platforms were found to include a strict requirement. A strict requirement to include job price was much more frequent among multinational platforms (66.7%) than global ones (21.4%).

Table 25. Distribution of DLPs by information availability of hours needed to complete job, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	2	9	5	9	12
Yes, optional	11	19	17	19	16
No	8	5	8	23	11
Total	**21**	**33**	**30**	**51**	**39**

The aggregate results reveal that the availability of information regarding the amount of hours needed to complete the advertised job tended in most cases to be an option rather than a strict requirement on most platforms. The proportion of platforms which strictly required clients to provide this information was highest in Italy (30.8%) and Spain (27.3%), and to a lesser extent in France (17.6%), Spain (16.7%) and Bulgaria (9.5%). This information was more likely to be optional in Germany (57.6%), Spain (56.7%) and Bulgaria (52.4%), and less so in Italy (41%) and France (37.3%). Meanwhile, the proportion of platforms where this information was unavailable was highest in France (45.1%), followed by Bulgaria (38.1%), Italy (28.2%), Spain (26.7%) and Germany (15.2%).

Table 26. Distribution of DLPs by information availability of hours needed to complete job, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	4	0	3	5	5	2	**19**
Yes, optional	0	3	1	4	1	7	10	**26**
No	4	0	2	15	4	9	2	**36**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the informational availability of hours needed to complete the job is disaggregated, we find the following results. First, none of the national platforms in Bulgaria include this information whatsoever, as do a high number of platforms in France (68.2%), Spain (66.7%), Italy (40%), a significant number of multinational platforms (42.9%), and a small amount of global platforms (14.3%). The proportion of platforms imposing a strict requirement was highest in Germany (57.1%) and Italy (50%), and to a much lesser extent, France (13.6%). Multinational platforms were slightly more likely to require clients to include this information (23.8%) than global platforms (14.3%).

Table 27. Distribution of DLPs by information availability of job duration, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	5	8	8	16	14
Yes, optional	12	21	20	23	19
No	4	4	2	12	6
Total	**21**	**33**	**30**	**51**	**39**

The data collected for the availability of information on the platforms regarding job duration show the following. The results are relatively consistent among each of the cases examined. The proportion of platforms which did not feature this information at all, tended to be rather low, but was highest among DLPs active in France (23.5%), followed by Bulgaria (19%), Italy (15.4%), Germany (12.1%) and Spain (6.7%). Usually, this informational was optional, with the frequency being highest among DLPs active in Spain (66.7%), Germany (63.6%), Bulgaria (57.1%), Italy (48.7%) and France (45.1%).

Table 28. Distribution of DLPs by information availability of job duration, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	1	0	6	5	7	5	**24**
Yes, optional	1	5	2	7	2	11	9	**37**
No	3	1	1	9	3	3	0	**20**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the data for the availability of information regarding job duration is disaggregated the following findings emerge. A strict requirement was highest among DLPs in Italy (50%), France (27.3%) and Germany (14.3%), while no DLPs in Spain and Bulgaria included this requirement. The respective figures were similar for multinational (33.3%) and global DLPs (35.7%).

Meanwhile more variability was apparent among platforms in terms of an optional choice for clients to include this information. It was highest in the cases of Germany (71.4%), Spain (66.7%), and less so in France (31.8%), Bulgaria (25%) and Italy (20%). An option appeared in 52.4% of multinational DLPs examined, and 64.3% global DLPs.

Cases where no such information was available also varied greatly, with the highest proportion being in Bulgaria (75%), followed by France (40.9%), Spain (33.3%), Italy (30%) and Germany (14.3%). Notably, among global DLPs this figure was 0, while among multinational DLPs, it was a relatively low figure of 14.3%.

Table 29. Distribution of DLPs by information availability of experience required, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	5	9	7	9	14
Yes, optional	14	20	17	29	16
No	2	4	6	13	9
Total	**21**	**33**	**30**	**51**	**39**

When examining the data for the availability of information related to the experience required for advertised jobs, we found an overall preference for platforms to allow clients to choose whether to include this information. A strict requirement was highest among platforms active in Italy (35.9%), followed by Germany (27.3%), Bulgaria (23.8%), Spain (23.3%) and France (17.6%). Among most DLPs, this information was optional, more frequently in the cases of Bulgaria (66.7%), and to a slightly lesser extent in Germany (60.6%), France (56.9%), Spain (56.7%) and Italy (41%). The proportion of DLPs where this information was absent was highest in France (25.5%), followed by Italy (23.1%), Spain (20%), Germany (12.1%) and Bulgaria (9.5%).

Table 30. Distribution of DLPs by information availability of experience required, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	1	0	1	5	6	4	**17**
Yes, optional	3	5	1	12	1	8	10	**40**
No	1	1	2	9	4	7	0	**24**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When we disaggregated the data concerning the availability of information about required experience, we found rather mixed results. First, there were very few cases where this information was mandatory with the exception of Italy (50%), and to a much smaller extent Germany (14.3%) and France (4.5%). The proportion of multinational and global platforms which included a requirement was 28.6% respectively.

The distribution of DLPs that allowed clients discretion regarding whether to include this information was very mixed. It was very high in the case of Bulgaria (75%) and Germany (71.4%), relatively high in the case of France (54.5%) and less so in the cases of Spain (33.3%) and Italy (10%). Meanwhile, global DLPs were much more likely to provide this information on an optional basis (71.4%) than multinational DLPs (38.1%).

Likewise, the distribution of DLPs where this information was absent was mixed. It was highest in the case of Spain (66.7%), followed by France (40.9%), Italy (40%), Bulgaria (25%) and Germany (14.3%). Multinational DLPs revealed a moderately high proportion of 33.3%, while none of the global DLPs examined lacked this information entirely.

Table 31. Distribution of DLPs by information availability of jobs as one time/repeated project, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	6	12	9	11	16
Yes, optional	12	17	13	15	13
No	3	4	8	25	10
Total	21	33	30	51	39

Concerning the availability of information about whether the jobs advertised were repeated projects or one-time tasks, we found the following. First, the proportion of platforms which did not include this information whatsoever were in the minority, with the exception of France (49%).

The slight preference in most cases tended to be for platforms to allow clients the discretion to include this information. The cases where the information was optional was highest in Bulgaria (57.1%), followed by Germany (51.5%), Spain (43.3%), Italy (33.3%) and France (29.4%).

The existence of a strict requirement was most common in the case of Italy (41%), followed by Spain (36.4%), Spain (30%), Bulgaria (28.6%) and France (21.6%).

Table 32. Distribution of DLPs by information availability of jobs as one time/repeated project, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	2	0	0	5	6	5	**18**
Yes, optional	3	5	1	3	2	6	8	**28**
No	1	0	2	19	3	9	1	**35**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

After disaggregating this data into its constituent parts, we found a more mixed picture with the following trends. A strict requirement to include this information was not identified, except for platforms in Italy (50%) and Germany 28.6%), with moderate values among multinational (28.6%) and global DLPs (35.7%).

An option to include the information was the clear preference in the cases of Bulgaria (75%) and Germany (71.4%), and to a much lesser extent in Spain (33.3%), Italy (20%) and France (13.6%). This information was optionally included among the majority of global DLPs (57.1%) and a moderate amount of multinational DLPs (28.6%).

In terms of cases where no such information was available, an exceptionally high proportion was identified among national platforms in France (86.4%) and Spain (66.7%), and to lesser extents in Italy (30%) and Bulgaria (25%). Multinational DLPs featured a moderately high value (42.9%), while the proportion of Global DLPs was much lower (7.1%).

Table 33. Distribution of DLPs by information availability of required skills and expertise, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	6	13	10	13	15
Yes, optional	14	17	15	25	14
No	1	3	5	13	10
Total	**21**	**33**	**30**	**51**	**39**

With regards to the availability of information concerning required skills and expertise, we found that in most cases, platforms tended more often than not, to give clients the discretion to include this information. The proportion where this information was optional tended to be highest in Bulgaria (66.7%), followed by Germany (51.5%), Spain (50%), France (49%) and Italy (35.9%).

Except for Italy, these figures were lower when it came to a strict requirement. It was highest in the cases of Germany (39.4%), closely followed by Italy (38.5%), Spain (33.3%), Bulgaria (28.6%) and France (25.5%).

The information was entirely absent in a small number of cases; however the proportion was highest in the cases of Italy (25.6%) and France (25.5%), followed by Spain (16.7%), Germany (9.1%) and Bulgaria (4.8%).

Table 34. Distribution of DLPs by information availability of required skills and expertise, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	3	2	3	5	5	6	**24**
Yes, optional	4	4	0	10	1	9	8	**36**
No	0	0	1	9	4	7	0	**21**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the data was disaggregated, the following trends emerged. First, all the national DLPs operating in Bulgaria included this information on a discretionary basis. The proportion of platforms where this information was optional was also relatively high among DLPs in Germany (57.1%) and France (45.5%), as well as among global (57.1%) and multinational platforms (42.9%).

The proportion of platforms which included a strict requirement for this information was highest in Spain (66.6%), followed by Italy (50%), Germany (42.9%) and France (13.6%). This figure was also relatively high in the case of global DLPs (42.9%), but less so for multinational DLPs (23.8%).

Finally, a moderate high proportion of platforms did not include this information altogether, particularly in the cases of France (40.9%), Italy (40%) and Spain (33.3%). This was also the case among 33.3% of multinational DLPs.

Table 35. Distribution of DLPs by information availability of whether jobs are hourly rated or based on project budget, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	6	14	12	18	18
Yes, optional	12	15	11	19	11
No	3	4	7	14	10
Total	**21**	**33**	**30**	**51**	**39**

Concerning the availability of information regarding whether the jobs advertised were hourly rated or based on a project budget, the following results were obtained. Across the board, relatively similar proportions of platforms included this information on a mandatory as on an optional basis, while the absence of this information tended to be in the minority. The proportion of platforms where this information was required was highest in Italy (46.2%), followed by Germany (42.4%), Spain (40%), France (35.3%) and Bulgaria (28.6%). On the other hand, this information was optional among a high number of platforms active in Bulgaria (57.1%), Germany (45.5%), and to a slightly lesser extent in France (37.3%), Spain (36.7%), and Italy (28.2%).

Table 36. Distribution of DLPs by information availability of whether jobs are hourly rated or based on project budget, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	2	0	5	5	8	6	26
Yes, optional	2	4	0	8	1	5	8	28
No	2	1	3	9	4	8	0	27
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	81

When this data is disaggregated certain trends become more apparent. First, all the platforms operating only in Spain did not include any information regarding whether jobs were hourly rated or based on a project budget. These figures were also moderately high in the cases of Bulgaria (50%), France (40.9%) and Italy (40%), as well as among multinational DLPs (38.1%).

In certain cases, there was a tendency for this information to be strictly required, notably among DLPs active in Italy (50%), and to smaller extent among global DLPs (42.9%) and multinational DLPs (38.1%).

The proportion of DLPs where this information was optional was highest in the case of Germany (57.1%), followed by Bulgaria (50%) and France (36.4%). Meanwhile the respective figures among global DLPs were relatively high (57.1%), but less so among multinational DLPs (23.8%).

Table 37. Distribution of DLPs by information availability of job location, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, mandatory	7	16	15	29	21
Yes, optional	11	13	11	13	9
No	3	4	4	9	9
Total	**21**	**33**	**30**	**51**	**39**

The data concerning the availability of information about job location presents the following trends. Among most cases, the preference appears to be for platforms to impose a strict requirement to include this information, with the highest proportion among platforms operating in France (56.9%), Italy (53.8%), Spain (50%) and Germany (48.5%). Bulgaria appears as a slight outlier with a value of 33.3%, where the preference tended to be to include this information on a discretionary basis (52.4%). Following Bulgaria, the cases where this informational was optional were also moderate in Germany (39.4%), Spain (36.7%), and somewhat lower in France (25.5%) and Italy (23.1%).

Table 38. Distribution of DLPs by information availability of job location, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multinational	Global	Total
Yes, mandatory	0	4	1	14	6	12	6	**43**
Yes, optional	4	3	1	3	0	6	6	**23**
No	0	0	1	5	4	3	2	**15**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

After breaking down this data, we found the following tendencies. Certain cases continued to demonstrate a high proportion of DLPs imposing a strict requirement, notably France (63.6%), Italy (60%) and Germany (57.1%), while Spain showed a lower value (33.3%). Meanwhile a majority of multinational DLPs imposed a strict requirement to include this information (57.1%), as well as a moderate level of global DLPs (42.9%).

Notably, all of the national platforms operating in Bulgaria included this information on a discretionary basis, while moderate values were detected in the cases of Germany (42.9%) and Spain (33.3%).

In certain cases, a significant proportion of national platforms did not include this information whatsoever, notably Italy (40%), Spain (33.3%) and France (22.7%).

Table 39. Distribution of DLPs by information availability of a classification system for jobs/skills, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes, jobs	11	18	19	25	21
Yes, skills	2	3	1	5	3
Yes, both	5	7	6	9	7
No	3	5	4	14	8
Total	**21**	**33**	**30**	**51**	**39**

When examining the DLPs in the dataset concerning the classification systems for jobs and skills we found the following trends. First, in every case, there was a strong preference for DLPs to feature classification systems organised on the basis of jobs, and to a lesser extent, on the basis of both jobs and skills.

The proportion of DLPs organised by jobs was highest in the case of Spain (63.3%), followed closely by Germany (54.5%), Italy (53.8%), Bulgaria (52.4%) and France (49%). Meanwhile, the proportion of DLPs organised by skills was in each case lower than 10%. On the other hand, the share of DLPs organised by both jobs and skills was highest in Bulgaria (23.8%), followed by Germany (21.2%), Spain (20%), Italy (17.9%) and France (17.6%).

Finally, a similar proportion of platforms which featured neither kind of classification system was identified. The highest values appeared in the case of France (27.5%), followed by Italy (20.5%), Germany (15.2%), Bulgaria (14.3%) and Spain (13.3%).

Table 40. Distribution of DLPs by information availability of a classification system for jobs/skills, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multi national	Global	Total
Yes, jobs	1	3	3	7	4	12	9	**39**
Yes, skills	2	2	0	4	2	1	0	**11**
Yes, both	1	1	0	4	1	4	3	**14**
No	0	1	0	7	3	4	2	**17**
Total	**4**	**7**	**3**	**22**	**10**	**21**	**14**	**81**

When the results for classification systems were disaggregated, further trends could be identified. First, there was a strong preference for classification systems based on jobs among global DLPs (64.3%) and multinational DLPs (57.1%). Notably, all of the national DLPs operating in Spain also relied on this classification scheme, as did a significant number of DLPs in Germany (42.9%), Italy (40%), but to a smaller extent those in France (31.8%) and Bulgaria (25%).

Instead, 50% of DLPs operating in Bulgaria tended to be organised on the basis of classification systems based on skills. The same figures in every other case were much lower: Germany (28.6%), Italy (20%), France 18.2%) and multinational (4.8%), while DLPs operating exclusively in Spain, and global DLPs both registered a value of 0.

The share of DLPs which were structured by classification systems based on both jobs and skills was relatively low across the board. The highest value registered was in the case of Bulgaria (25%), followed by France (18.2%), Germany (14.3%) and Italy (10%). Meanwhile, the respective values for global DLPs (21.4%) and multinational DLPs (19%) were comparably low.

With regards to platforms where no classification system was identified, the highest proportions were identified in the cases of France (31.8%), followed by Italy (30%) and Germany (14.3%). Meanwhile comparably low values were found among multinational (19%) and global DLPs (14.3%).

Table 41. Distribution of DLPs by information availability of job ad publication date, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes	8	13	13	23	14
No	12	18	16	21	23
Total	**20**	**31**	**29**	**44**	**37**

When considering the availability of job advertisement publication dates on DLPs, we found the following results. While the distribution was quite even, the preference was slightly towards this information not to be included, with the exception of France where the opposite held. Accordingly, the proportion of platforms where the publication date of job advertisements was included was highest in France (52.3%), followed by Spain (44.8%), Germany (41.9%), Bulgaria (40%) and Italy (37.8%).

Table 42. Distribution of DLPs by information availability of job ad publication date, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multi national	Global	Total
Yes	0	1	2	11	2	6	8	**30**
No	4	5	1	6	7	13	6	**42**
Total	**4**	**6**	**3**	**17**	**9**	**19**	**14**	**72**

When the availability of job advertisement publication dates was disaggregated, the following trends were identified. First, the tendency to include this information was higher among global DLPs (57.1%) than among multinational DLPs (31.6%).

At the national level, the results also appeared quite mixed. The share of DLPs which included this information was high in the cases of Spain (66.7%) and France (64.7%), while it was comparatively low in the cases of Italy (22.2%), Germany (16.7%) and Bulgaria (0%).

Table 43. Distribution of DLPs by information availability of job ad expiration date, aggregated results.

	BG (all)	DE (all)	ES (all)	FR (all)	IT (all)
Yes	20	1	0	4	0
No	0	30	29	40	37
Total	**20**	**31**	**29**	**44**	**37**

With regards to the availability of job advertisement expiration dates on DLPs, we found highly polarised results. Among the Bulgarian platforms examined, all included this information, while the respective values for other cases were significantly lower: France (9.1%), Germany (3.2%), Spain and Italy (0%).

Table 44. Distribution of DLPs by information availability of job ad expiration date, disaggregated by national, multinational and global.

	BG (national)	DE (national)	ES (national)	FR (national)	IT (national)	Multi national	Global	Total
Yes	0	0	0	4	0	1	0	5
No	4	6	3	13	9	18	14	67
Total	**4**	**6**	**3**	**17**	**9**	**19**	**14**	72

After disaggregating the data into their constituent parts, the results were quite consistent, notably that there was an overwhelming tendency not to include the expiration date in job advertisements. A slight exception was identified among DLPs operating at the national level in France, where a significant proportion did include this information (23.5%).

5.3 Summary remarks

After reviewing the distribution of DLPs across the variables which were selected for analysis, we conclude with some methodological remarks and provide a general profile for each of the cases studied.

As a forewarning, we note that National DLPs in Bulgaria and Spain appear to have unusually high or low values across certain variables, appearing as outliers when compared to other cases. When the aggregated results are considered, the results for these countries are skewed by the characteristics of multinational and global DLPs which accounted for a significant number of DLPs in the case of these two countries. This difference is even more dramatic in the case of Spain (3 national, 13 multinational and 14 global DLPs) but still significant in the case of Bulgaria (4 national, 3 multinational and 14 global DLPs). Accordingly, we encourage the sample size and aggregate composition of these cases to be taken into consideration when interpreting the findings. For this reason, when constructing the profiles of the five selected countries, we relied largely on the disaggregated data pertaining to national DLPs, and chose to discuss multinational and global DLPs separately.

5.3.1 Multinational digital labour platforms

Multinational DLPs tended to have a strong preference towards location-based work and an even distribution in terms of the required skill to complete jobs, skewed slightly towards the low-to-medium end of the spectrum. Here, skills evaluation, when present, tends to be just credential checks. Algorithmic management was prevalent, and the preference was towards pre-selection. The majority offered project-based work, however task-based work still featured on a smaller but still significant scale. These platforms were mostly oriented towards B2B clients; however a moderate amount was also oriented towards B2C. All of the platforms examined here were exclusively for-profit.

Access to job offers was rather evenly split, with a slightly higher preference towards open access than registration.

Regarding information availability, we found the following trends among multinational DLPs.

Job titles tended to be mandatory, however in a moderate number of cases they were unavailable. The job price tended to be mandatory as well. Hours needed tended to be unavailable, however where it was listed, this information was optional. Job duration tended to be optional, however to a slightly lesser extent, it was mandatory. Job experience was quite evenly split, with a slight preference towards optional. The information pertaining to whether listed job were one time or repeated tended to be unavailable. Skills and expertise were mixed, with a preference towards optional, followed by unavailable. Hourly rated/project budget was also mixed, with an even number of platforms either strictly requiring this information or not providing it altogether. To a lesser extent, it was optional. Job location tended to be mandatory. Classification systems were found in most cases, and usually tended to be based on jobs. Job publication date tended to be unavailable, while job expiry date was unavailable in almost every single case.

5.3.2 Global digital labour platforms

Among global DLPs we identified a prevalence towards web-based work, and to a lesser extent towards both web and location based work. There was a strong preference towards high-skilled work. These platforms tended in most cases to feature skills evaluation mechanisms, usually limited to types of credential evaluation, and to a lesser extent, platform tests. They tended not to utilise forms of algorithmic management, however in the cases where these mechanisms were found, they tended to be of the ordering form. Global DLPs tended not to offer exclusively task-based work, but instead mainly offered projects-based work or a combination of both. These platforms were exclusively for profit, and almost always oriented towards B2B clients. Access to job offers is generally restricted to registered users.

Regarding information availability, we found that job titles tended to be mandatory. Information pertaining to job price, hours needed, job experience, one time/repeated work tended to be optional. Hours needed to complete the task was optional in most cases. Job duration tended to be optional, with few cases where it was mandatory. Skills and expertise were present across all cases and were usually optional. Information pertaining to whether jobs were hourly rated or based on a project budget were always available but tended to be optional. Job location was mixed, with equal proportions of mandatory and optional. Classification systems were found in most cases, and usually tended to be based on jobs. Job publication date was mixed, but was available in more cases than not, while job expiry date was always unavailable.

5.3.2.1 Bulgaria

Among Bulgarian national platforms there was a preference towards location-based work. A significant amount of web-based work seemed to be offered in the country however this might be accounted for by multinational and global DLPs operating in that country. There was a mix of high skilled work and both high-skill and low-to-medium skilled work. Exclusively credential forms of skill evaluation were found. These platforms tended not to rely on any forms of algorithmic management. They offered exclusively a combination of both task and project-based work. When multinational and global DLPs are considered alongside however, a large number of project-based work appears due to a high prevalence among these kinds of platforms. A preference was identified to a combination of both B2B and B2C clients. At the national level, an even split was identified in terms of a for-profit and non-profit orientation. Access to job offers was exclusively offered to registered users.

In terms of informational availability, job titles and job location were exclusively optional, while job price was either optional or unavailable. Hours needed to complete the job was unavailable in all cases, while job duration tended to be unavailable in most cases. Information about the required job experience and whether jobs were one time or repeated tended to be optional. Skills and expertise were always optional. An equal proportion was found regarding whether jobs were hourly rated/project budget between optional or unavailable. Classification systems were identified in every case, but the type was mixed, with a slight preference towards systems based on skills. Job publication and expiry date was unavailable in all cases.

5.3.2.2 France

DLPs operating in France ended to offer a combination of both location and web-based types of work. High-skill work predominated, while to a lesser extent, a combination of both high skill and low-to-medium skill work was found. These platforms tended not to feature any kind of skill evaluation mechanisms, but were mixed in terms of which kind of algorithmic management system was present, with a slight preference towards ordering candidates. There was a strong inclination towards project-based work and B2B clients. Access to jobs was open in most cases. These platforms operated almost exclusively on a for-profit basis with the exception of one national DLP.

In terms of information availability, job titles were usually mandatory, however they were unavailable in some cases. Job price was almost always unavailable, while hours needed and one time/repeated work tended to be unavailable in most cases. Information regarding job duration was mixed, but tended to be unavailable, and optional to a lesser extent. Meanwhile, job experience and skills and expertise tended to be optional, and to a lesser extent unavailable. Hourly rated/project budget offered mixed results: in a large number of cases it was unavailable, but where it was provided, tended to be optional. Job location tended to be mandatory. Classification systems were mixed, usually they existed, however were absent in about third of cases. Where they did exist, they usually tended to be based on jobs. Job publication date was usually available. Job expiry date was usually unavailable; however France was exceptional as the case that featured the highest proportion of available information in this category.

5.3.2.3 Germany

DLPs operating at the national level in Germany tended to be more inclined towards location-based work. The job offers tended to be for a mixture of high skill work and combination of both high skill and low-to-medium skill work. In most cases, only credential forms of skill evaluation were found. These platforms tended not to rely on forms of algorithmic management in most cases, however where it was found, it tended to consist of ordering. The types of jobs offered were a mix of project-based work and to a lesser extent, a combination of both project-based and task-based work. Usually they were oriented towards B2B clients, and to a lesser extent, to a combination of both B2B and B2C. All platforms here operated exclusively on a for-profit basis, and in most cases access to job offers was open.

With regard to information availability, job titles were always mandatory, while job price, job duration, job experience, one/time repeated work, hourly rated/project budget tended to be optional. Information about hours needed was usually mandatory. Skills and expertise was always available, but in these cases it tended to be optional. Job location was always available but in more cases tended to be mandatory. Classification systems almost always existed, and in most cases were based on jobs, then on skills. Job publication date in most cases was unavailable, while job expiry date was always unavailable.

5.3.2.4 Italy

At the national level, DLPs in Italy were more oriented towards location-based work and featured a strong preference for low-to-medium skill work. They tended not to feature skill evaluation systems, however where it did exist, it was a form of credential check. The Italian case featured a very high reliance on forms of algorithmic management, in most cases pre-selecting candidates. The type of work advertised on these platforms was quite evenly spread, with half of platforms offering a combination of both project and task-based work, followed by projects, and finally by task. These platforms operated exclusively on a for-profit basis and were almost always oriented towards B2C clients. In most cases, job access was limited to registered users.

Concerning information availability, the following trends were found. Job titles were usually mandatory, however they were unavailable in some cases. A number of variables offered mixed results: among job price, job duration, hours needed, job experience, one time/repeated job, hourly rated/project budget there was an even split or a marginal preference towards mandatory over unavailable. Skills and expertise as well as job location tended to be mandatory, and to a lesser extent, unavailable. The situation regarding classification systems was mixed: similar to the case of France, they were absent in about a third of cases, but where they did exist, they tended to be based on jobs. Finally, job publication dates were usually unavailable, while job expiry dates were always unavailable.

5.3.2.5 Spain

DLPs active at the national level in Spain were found to be more oriented towards web-based and high-skilled work. They tended not to rely on any skill evaluation mechanisms. In every case examined, a pre-selection form of algorithmic management was used. In terms of the type of work offered, an 'either-or' logic prevailed with platforms offering either project-based or task-based work rather than a combination. However, the preference was mostly towards project-based work. The platforms in this case operated on exclusively on a for-profit basis. In most cases they were oriented towards B2B clients, and access to jobs tended to be open.

In terms of information availability on platforms operating in Spain, job titles were exclusively mandatory, while job price was exclusively optional. Hours needed tended to be unavailable, and in a small number of cases, were optional. Job duration tended to be optional, while job experience and one time/repeated tended to be unavailable. Skills and expertise were usually mandatory and information relating to whether jobs were hourly rated or based on project budget was unavailable in all cases. Job location was split evenly among mandatory, optional and unavailable. Classification systems were always present and in every case based on jobs. Job publication date was available in more cases than not, while job expiry date was always unavailable.

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Platform work glossary

This appendix presents definitions of relevant terms for the platform economy. The definitions are based on various documents produced by European Commission, Cedefop, JRC and other research institutes.

Crowdwork

New form of employment based on the use of online platforms to connect clients (usually companies) with service providers (usually individuals aka crowdworkers) to carry out tasks – or subtasks – or projects on-demand, in a distributed way.

Source: Cedefop.

Digital labour platform

Digital network used to coordinate, with a greater or lesser extent of control, and in an automated way, the provision of on-demand labour services by individuals 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. Digital labour platforms include:

- web-based platforms, where work is outsourced through an open call to a geographically dispersed crowd ("crowdwork"), and;
- location-based applications (apps) which allocate work to individuals in a specific geographical area, typically to perform local, service-oriented tasks such as driving, running errands or cleaning houses;

The implications of digital labour platforms for work and employment are ambivalent:

- on the one hand, they can lower the entry barriers to the labour market, facilitate work participation through better matching procedures and ease the working conditions of groups usually marginalised; they can facilitate continuing skill development and learning of workers;
- on the other hand, digital labour platforms typically rely on a workforce of independent contractors whose conditions of employment, representation and social protection are at best unclear, at worst clearly unfavourable.

Source: based on European Commission, 2021; JRC, 2018; Cedefop 2020b; Cedefop, 2021.

Gig economy

Economy in which labour market is characterised by the prevalence of precarity (short-term contracts or freelance work) as opposed to permanent jobs.

Source: based on Oxford Dictionary.

Gig work

Income-earning activities outside of standard, long-term employer-employee relationships, usually short-term or project-based. Gig work may concern freelancing, temporary agency work, self-employment, and subcontracted work.

Source: Cedefop

Platform economy

Economy based on the use of digital networks that intermediate, with a greater or lesser extent of control, the provision of on-demand services requested by individuals or corporate consumers.

Source: based on European Commission, 2021.

Platform work

Form of crowdsourced work, whereby Internet-based digital platforms and networks are used to bring together organisations or individuals to carry out tasks, to solve specific problems or to provide specific services in exchange for payment.

Platform work is mostly used to perform:

- online services such as:
    - clerical and data-entry tasks (e.g. customer services, data entry, transcription and similar);
    - online labour services (e.g. accounting, legal, project management and similar);
    - online creative and multimedia work (e.g. animation, graphic design, photo editing and similar);
    - online sales and marketing support work (e.g. lead generation, posting ads, social media management, search engine optimisation and similar);
    - online software development and technology work (e.g. data science, game development, mobile development and similar);
    - online writing and translation work (e.g. article writing, copywriting, proofreading, translation and similar);
    - online micro tasks (e.g. object classification, tagging, content review, website feedback and similar);
    - interactive services (e.g. language teaching, interactive online lessons, interactive consultations and similar);
- offline services, such as:
    - transportation and delivery services (e.g., driving, food delivery, moving services and similar);
    - on-location services (e.g. housekeeping, beauty services, on-location photography services and similar).