Online Panel Survey of Platform Workers. Technical report

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European Institute for Gender Equality

The European Institute for Gender Equality (EIGE) is an autonomous body of the European Union established to strengthen gender equality across the EU. Equality between women and men is a fundamental value of the EU and EIGE's task is to make this a reality in Europe and beyond. This includes becoming a European knowledge centre on gender equality issues, supporting gender mainstreaming in all EU and Member State policies and fighting discrimination based on sex.

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Abbreviations

EIGE	European Institute for Gender Equality
EU-LFS	European Union Labour Force Survey
EU-SILC	European Union Statistics on Income and Living Conditions
Eurofound	European Foundation for the Improvement of Living and Working Conditions
EWCS	European Working Conditions Survey
ISCED	International Standard Classification of Education

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Introduction

This technical report presents details of the European Institute for Gender Equality (EIGE)'s online panel survey of platform workers ([1]), which was carried out in 2020 in 10 European Union Member States. The survey results are presented in the report on artificial intelligence, platform work and gender equality (EIGE, 2022) ([2]).

Advances in digitalisation have brought profound opportunities, but also new challenges, in the labour market. Among the major developments is the growth of digital labour platforms in the EU. In 2021, the European Commission presented a set of powerful tools to improve the working conditions of platform workers, with a view to support the conditions needed for the sustainable growth of digital labour platforms in the EU (European Commission, 2021a).

Several surveys of platform workers have been conducted to date, including at EU level. However, general knowledge of platform work is still scarce, and a gender perspective in both the conceptualisation of studies and the interpretation of findings is essentially absent. The main objective of EIGE's survey was to increase the understanding of gender differences in the working conditions, work patterns and work–life balance of women and men engaged in platform work. Both the survey design and the data collection time frame ensured coverage of the impact of the COVID-19 pandemic.

The survey was carried out in Denmark, Spain, France, Latvia, the Netherlands, Poland, Romania, Slovenia, Slovakia and Finland. These countries were selected to ensure diversity in terms of geographical heterogeneity; differences in prevalence of platform work; different levels of gender equality and digital performance as measured by the Gender Equality Index (EIGE, 2020) and the Digital Economy and Society Index (European Commission, 2020); and distinct welfare and social protection systems. The online panel survey of platform workers used a sample database of potential respondents willing to respond to online questio nnaires. The survey fieldwork was carried out in November and December 2020. The survey recruited respondents who were daily internet users, with the aim of identifying platform workers among them. The final validated sample of platform workers comprised 4 932 respondents.

This technical report provides detailed information on the complete survey process from survey design to data export, cleaning and weighting. It also includes information on the data limitations and potential sources of bias, which should be considered when drawing insights from the data. Chapter 1 provides information on the pre-fieldwork phase and focuses on sampling design, while Chapter 2 describes the questionnaire design and piloting. Chapter 3 then explains the fieldwork process. Finally, Chapter 4 details the post-fieldwork adjustments, covering the data-cleaning, data validation and data-weighting procedures.

([1]) EIGE commissioned PPMI to carry out the survey.

([2]) The study was developed to support the 2021 Slovenian Presidency of the Council of the European Union to ensure the ongoing implementation of the Beijing Platform for Action in the EU.

1. Sampling

1.1. Country coverage and survey target

The survey was implemented in 10 selected EU countries – Denmark, Spain, France, Latvia, the Netherlands, Poland, Romania, Slovenia, Slovakia and Finland – and focused on identifying and collecting data from platform workers who were internet users ([3]). The respondents who passed the filter questions on platform work participated in the online survey and received the questions aimed at platform workers.

Compared with earlier panel surveys of platform workers, the targeted sampling approach contributed significantly to increasing the internal validity of the platform work analysis. First, the survey collected data from a larger sample of platform workers, which allowed a greater degree of freedom in specific analyses focusing on gender differences. Second, the specific focus on platform workers enabled the development of better-tailored and more focused measurement instruments. However, it is important to note that this approach does not allow generalisation of the survey findings to the wider population of internet users, because only specific groups of internet users were targeted. The approach also does not allow generalisations to the population of platform workers, as no reliable statistics on the size of this population exist to calibrate the data. This also means that the opportunities for estimating the prevalence of platform work are limited and that such estimations rely on numerous assumptions.

1.2. Sampling design

The sampling of survey respondents was carried out using the consumer survey panel aggregator Cint, which has access to 50 million people through opt-in access panels in over 80 countries. The panels contain detailed demographic information, which was used to target respondents and validate survey data.

Initially, the survey aimed to collect around 4 000 responses from platform workers from the 10 target countries (about 400 responses per country). Based on the results of the collaborative economy and employment research project (COLLEEM) surveys ([4]), it was expected that around 10 % of the respondents answering the filter questions would be platform workers (Brancati, Pesole and Fernández-Macías, 2020; Pesole et al., 2018). This is also the minimum prevalence allowed by Cint. Based on initial research, it was estimated that the prevalence could be lower than 10 % in Denmark, Latvia, Slovenia, Slovakia and Finland. In Spain, the Netherlands and Romania, it was estimated that the prevalence could be higher; the greater numbers of responses in these countries were expected to compensate for the lower prevalence in other countries.

To increase the chances of capturing a larger number of platform workers, and in light of the COLLEEM results, the survey targeted individuals aged 16–54 years. In addition, using the targeting functionalities provided by Cint, the panellist groups in the relevant categories, such as internet, e-commerce, information technology, media, telecommunication, tourism and human resources, were primarily targeted. Ultimately, the targeted approach proved to be effective, as the number of

([3]) In this report, the term 'internet users' refers to daily internet users.

([4]) COLLEEM is a research project carried out by the Joint Research Centre in partnership with the Directorate-General for Employment, Social Affairs and Inclusion.

platform workers identified – 4 932 – exceeded the initial expectation of up to 4 000 respondents.

EIGE considered applying quotas (in terms of age and gender) to platform workers based on the data from existing surveys (Brancati, Pesole and Fernández-Macías, 2020; Huws et al., 2017; Pesole et al., 2018; Piasna and Drahokoupil, 2019). However, this strategy proved not to be feasible for several reasons. First, the total number of panellists registered in the target countries was potentially too small, and it might have been necessary to survey all the available panellists in some target countries to identify the several hundred platform workers that were envisaged for specific quotas. Second, previous surveys on platform workers did not cover all the target countries of this survey and were not based on probability. Generally, data from surveys using probability sampling are used to estimate sampling quotas.

2. Questionnaire design

The questionnaire design combines two approaches. The first consisted of EIGE focusing on identifying and applying the 'tried and tested' survey questions from existing surveys measuring relevant concepts. Using validated questions from recognised surveys ensured higher comparability and validity of the results. The two waves of the COLLEEM survey, Eurostat's Community Survey on ICT Usage in Households and by Individuals, the European Union Labour Force Survey and the European Working Conditions Survey (EWCS) conducted by the European Foundation for the Improvement of Living and Working Conditions (Eurofound) provided an important basis for the questionnaire (Brancati, Pesole and Fernández-Macías, 2020; Eurofound, 2020a; Eurostat, 2020a, 2020b; Pesole et al., 2018).

The second approach consisted of designing case-tailored and context-specific questions. Broad, theoretical concepts of the study were translated into properly measurable indicators and then into survey questions. In this process, EIGE relied on the best practices in survey methodology. For example, the specificities of factual, behavioural and attitudinal questions were thoroughly addressed. It was important to ensure that the questionnaire would measure what it intended to measure (i.e. to have high construct validity). In terms of content, the questions and their possible answers were based on the most recent research and relevant EU documents in the field of digital work.

The final questionnaire featured 39 questions, all of which had to be answered by respondents who met the relevant criteria. In addition to the first two sections, which were used to identify platform workers in the full sample ([5]), the questionnaire included a further 11 sections. Nine of these were designed to collect responses from respondents who had ever worked through online platforms and two sections focused only on regular platform workers. The final questionnaire in English is presented in Annex 1. It includes the instructions given to respondents, possible answers to each question, explanations of the rationale behind each section and filtering questions.

2.1. Questionnaire pre-testing

In the questionnaire development phase, the questionnaire was thoroughly tested by applying pre-testing methods such as expert reviewing, cognitive interviewing and technical testing.

Expert reviews. To ensure that the questionnaire tackled the most relevant aspects of platform work and gender equality, it was submitted for expert feedback. The reviewers were from EIGE, from the PPMI project team and external experts (i.e. national researchers in the area of gender equality and the labour market). They provided feedback on survey questions after systematically analysing each question in terms of interest, comprehension, information retrieval, judgement and response generation. Following several rounds of expert reviews, the revised version of the questionnaire was tested using the following methods.

Cognitive interviews. Cognitive interviews aimed to understand the cognitive processes that the respondent engages in when answering a ques-

([5]) A two-question strategy to identify platform workers was used. The first question in the questionnaire was shown to all respondents who were invited to fill in the survey, and it was used to identify respondents who had ever engaged in platform work. Those who had not ever engaged in platform work were disqualified and asked to provide information on their educational background, which was used in data weighting. Those respondents who in the first question indicated that they had ever worked via online platforms were shown, based on their response in question 1, two questions on the type of platform work they had engaged in, differentiating between web-based remote services and on-location services. Those respondents who selected an answer other than 'None' in either of the questions (question 3 or question 4) about types of services provided through online platforms proceeded to fill in the remaining 11 sections of the questionnaire. Other respondents were disqualified and asked to provide information on their educational background, which was used in data weighting.

tion. The questionnaire was tested during in-depth one-to-one interviews with five platform workers ([6]), who were asked about each questionnaire item. The think-aloud technique was predominantly employed, but respondents were asked to paraphrase some questions, followed by probing with follow-up questions. This exercise was intended to identify:

- whether respondents had any problems with comprehending any of the questions (including the reference points, specific wording and scales);
- whether respondents comprehended the questions in similar ways, as intended by the authors of the questionnaire;
- whether respondents felt they were unable to answer any questions because they lacked information or found it difficult to recall (e.g. questions concerning a long period of time);
- whether all scales and response categories covered the full range of likely responses.

Several difficulties were identified in areas such as question comprehension, recall of information, answer generation / providing a response, and adverse reactions to sensitive or difficult questions. All the insights gathered in pre-testing fed into questionnaire improvement. Based on the cognitive interviews, the following changes were made:

- several questions and response options were rephrased to make them shorter and more comprehensible;
- the wording of some questions was changed to make it more consistent throughout the questionnaire;
- several more instructions were added, allowing respondents to better follow the changing reference points throughout the questionnaire;
- a question on the length of time working on online platforms was added, as it might be relevant for the analysis of gender-specific outcomes.

Questionnaire technical testing. To ensure the questionnaire would work well in the online survey tool, the following actions were taken:

1. reviewing the technical implementation, and debugging, which included testing the survey branching, validating responses and filters, and making questions compulsory;
2. ensuring survey stability across browsers and operating systems, by testing and reviewing visual displays, functioning of features/responses and other aspects on computers (Windows and macOS, various browsers), tablets and smartphones (Android and iOS).

2.2. Questionnaire translation and validation of translations

The English version of the questionnaire was translated into 10 EU languages ([7]) by professional native-speaker translators who worked with survey translations on a regular basis. These translations were subsequently proofread by other native-speaker translators of each language. Translation quality checks were carried out by researchers from each surveyed country in the PPMI project team. The most country-specific question – on education levels – was translated after consulting national labour force survey questionnaires and their education level measurement. The reporting values were standardised across countries using the International Standard Classification of Education (ISCED).

Generally, all translations were required to maintain semantic, conceptual and normative equivalence across all surveyed countries. To ensure this, in many cases the final questionnaires were trans-

([6]) Three women and two men from Spain, Latvia and Romania participated in cognitive interviews. Their ages ranged from 21 to 44 years. They had been working through online platforms for between 2 months and 3 years. Three of the interviewees had children.
([7]) Danish, Dutch, Finnish, French, Latvian, Polish, Romanian, Slovak, Slovenian and Spanish.

lated not word for word, but to ensure that the connotations of the question wording and the overall meaning remained the same. For some language versions, this required retaining English terms in brackets in the question text. This particularly concerned digital-economy-specific terms such as 'crowdfunding' and 'peer-to-peer'.

2.3. Piloting

The primary objective of the pilot survey was to ensure that the survey questionnaires adequately conveyed the intended research questions. The pilot survey also allowed the testing of the translated questionnaires, to detect any issues related to the translations themselves. It also helped to test the method of contacting respondents, the questionnaire logic and routings, the export of data from the online tool and instances of technical errors. Finally, the piloting also served the purpose of testing the targeted sampling approach with the aim of identifying more platform workers.

A brief pilot survey was conducted in November 2020. A small sample of the target population was used to evaluate the translated questionnaires in a real context. Overall, 334 respondents accessed the pilot survey. After excluding partial responses (n = 10), the total pilot sample comprised 324 respondents. Among them, 107 (33.0 %) indicated that they had ever worked through online platforms.

After the collection of pilot survey data, the analysis focused on several aspects.

- **Response distributions.** Distributions at odds with the results of earlier surveys on platform work, irregular distributions or distributions with a large share of 'Don't know / Not applicable' responses served the purpose of indicating issues requiring further investigation. No major issues were identified.

- **Characteristics of respondents.** The country of residence, education level, age and gender of the respondents, according to the demographic data provided by Cint, were compared with the data gathered by the survey tool. Several inconsistencies and fraudulent responses were detected and taken into account in the analysis of final data (see Section 4.1).

- **Survey paradata.** The time taken to complete the survey, the time spent on each page and any trends in the points of survey termination and incomplete responses were checked. No alarming trends or issues were identified.

- **Technical aspects.** Checking was carried out to determine if all the responses were recorded and exported properly and if they followed the questionnaire logic. No major issues were identified.

- **Open answers.** Analysis of the responses to the open question on the most frequently used online platforms (question 12) indicated some problems with comprehension. Many answers included websites whose primary purpose is not to generate income through labour but that are concerned with generating capital or selling goods (e.g. eBay, Etsy, Airbnb). After the pilot, this issue was addressed by adding a filter to identify platform workers according to type of web-based (question 3) and on-location (question 4) platform work. In each question, the response 'None of the above' was added (in addition to 'Other'). Therefore, a two-question strategy to identify platform workers in the full sample was adopted. Question 1 assessed involvement in the digital economy and questions 3 and 4 assessed involvement in platform work. For a respondent to be identified as a platform worker, they had to have selected platform work in question 1 and any of the answer options describing types of services in question 3 or question 4 (i.e. any option except 'None of the above').

The pilot data did not indicate any major issues with the questionnaire. Therefore, the questionnaire did not change substantially but small adjustments were made, and the pilot responses were integrated in the full survey dataset.

3. Fieldwork

The main survey stage was from 27 November 2020 to 3 December 2020. Two online tools were used. The survey was programmed and managed using the PPMI's in-house online survey tool Alchemer. The tool features the full functionality needed to ensure the execution of a user-friendly survey and gathering of information (responses and paradata). The survey was accessible from desktop computers and other devices, including smartphones and tablets, with different operating systems (Windows, macOS, iOS, Android). To reach the survey respondents, the services of the online survey panel aggregator Cint were used.

3.1. Fieldwork monitoring

The following key performance indicators were defined during the pre-fieldwork phase of the survey. They were used to monitor the field phase of the survey, with the following real-time insights provided on a dashboard:

- number of responses by country,
- number of timed out / partially completed responses by country,
- detection of technical problems such as item non-response (i.e. questions or pages skipped),
- distribution of respondents' time spent on each survey page,
- survey break-off rate (i.e. panellist leaving the survey incomplete) and frequency of break-offs in each page,
- in-progress sample composition (e.g. proportion of digital platform workers in each country),
- information on open responses.

Key performance indicators were utilised both to observe progress and to detect potential issues (e.g. server performance and technical errors; unusually high break-off rates for certain pages; fraudulent respondents). No major issues were identified during the fieldwork and no intervention was required.

3.2. Fieldwork outcome

Initially, the share of platform workers out of the total sample of respondents was expected to be lower than 10 % in Denmark, Latvia, Slovenia, Slovakia and Finland, and higher than 10 % in Spain, the Netherlands and Romania. A higher prevalence was achieved in all countries (see Table 3). The shares of platform workers out of all respondents who answered the filter questions ranged from 19.8 % in Finland to 49.7 % in Romania. An average prevalence across the surveyed countries (31.2 %) cannot be interpreted as representative of the true prevalence of platform work. The higher-than-expected prevalence was, to a large extent, due to this survey targeting panel members more likely to be platform workers. Furthermore, the high prevalence may in part be due to an increase in the uptake of platform work during the COVID-19 pandemic. Recent data show that there has been an increased demand for delivery, software development and technology services since the beginning of the COVID-19 pandemic (Eurofound, 2020c). Similarly, the results of this survey show that as many as 31 % of surveyed platform workers said they started or restarted working through online platforms because of the COVID-19 pandemic or related policy measures.

The survey collected responses from 4 932 platform workers across the 10 selected Member States, which exceeded the initial target of 4 000 respondents. The survey also achieved the national target of about 400 respondents per country, ranging from 359 respondents in Denmark to 540 respondents in Romania.

4. Data processing

The data-processing phase included data cleaning, data validation, data weighting and data anonymisation.

4.1. Data cleaning and validation

Once the fieldwork was completed, the dataset was rigorously cleaned to ensure data quality. From a total of 16 816 responses to the filter questions, 1 007 were deleted. The final clean dataset contained 15 809 respondents, of whom 4 932 (31.2 %) were platform workers. The summary of omitted responses is presented in this report (see Table 2).

4.1.1. Partial responses

A common issue in survey research (and especially online surveys) is that a number of respondents do not complete the survey. Partial responses in this survey account for the largest share of deleted observations (n = 556). There were more partial responses among participants from Latvia and Slovakia than among those from other countries, but the spread was small and the higher numbers in these countries were not caused by survey malfunctioning.

4.1.2. Data quality and validation

The responses were checked to prevent **duplicate completes** (the same person completing the survey twice), using identification variables from panel providers. Then, checks for **poor-quality** responses were carried out, specifically for 'straightlining', when respondents select the same answer to all subquestions in a grid-type question, and for suspicious 'speeding' behaviours, which were analysed by assessing the overall and page-by-page time it took respondents to complete the survey.

This was followed by **advanced validations or logic tests**, involving univariate and multivariate procedures. An example of univariate validation is checking distributions of all variables and identifying outliers. Multivariate validation procedures involved finding interrelated variables and carrying out logical checks that are used to find errors or inconsistencies.

Overall, 27 quality and validity checks were performed. A specific weight, ranging from 0.5 to 1.0, was assigned to each of the tests used for data cleaning. While the full weights were assigned to tests that clearly indicate internally illogical answers, the half-weights were assigned to those in which the responses could be feasible in rare situations. The details are summarised in Table 1. All respondents who achieved a weighted indicator score of 3.0 or more were removed. In total, 451 respondents (platform workers) were removed from the dataset after quality and validity checks. It is important to note that some respondents were kept in the dataset if they failed some less decisive tests. This concerns respondents who, for example, had outlier values in numeric open-ended questions.

Table 1. Indicators and their associated weights used in data cleaning

No	Weight	Weight description	Test explanation
1	0.5	Concerns straightlining in question 16.	It is unlikely that responses would be uniform across items, as the first set of items (implying stability) differs from the second set of items (implying unpredictability).
2	0.5	Concerns selecting 'Not applicable' for all items in question 21.	It is unlikely that respondents would not be able to assess if they had experienced any of the situations because of the COVID-19 pandemic or related policy measures listed in question 21.
3	0.5	Concerns selecting 'Don't know / Not applicable' for all items in question 32.	It is unlikely that respondents would not be able to assess how involved they and their partner/spouse are in the household activities listed in question 32.
4	1.0	Concerns selecting more than six tick boxes in question 20 (types of discrimination).	It is unlikely that respondents had experienced discrimination on six or more grounds.
5	1.0	Concerns selecting more than five tick boxes in question 22 (support received during COVID-19 crisis).	It is unlikely that respondents had received more than five different types of support.
6	0.5	Concerns selecting one of the top 19 countries on the list of countries of birth, unless the respondent selected Algeria as country of birth and filled in the survey in France.	It is possible that these response options could have been chosen out of fatigue at the end of the survey, so the indicator was given the lower weight.
7	1.0	Concerns being among the fastest respondents to fill in at least three survey pages.	Typical indicator.
8	0.5	Concerns the total number of times a respondent gave an invalid verbal answer to open-ended questions.	Flagged as being inconsistent, as it may point to a misunderstanding.
9	0.5	Concerns the total number of times a respondent provided answers other than labour platforms to question 12.	Flagged as being inconsistent, as it may point to a misunderstanding.
10	1.0	Concerns inconsistencies in which platforms indicated in question 12 do not provide the services respondents claim to provide in questions 3 and 4.	Flagged as being inconsistent.
11	0.5	Concerns respondents choosing the category 'Always' for the item 'I had to reject a task / work assignment.'	Flagged as being inconsistent. Given that respondents said they worked through online platforms, it is not possible they had to always reject tasks / work assignments.
12	0.5	Concerns the number of times a respondent provided an outlier value in numeric questions (questions 15, 25, 26, 28, 29 and 31).	All outliers were flagged as being of poor quality.
13	1.0	Concerns the combined number of hours in question 15 (searching and implementing) being greater than 80 (excluding outlier values in each question 15 variable, which were already flagged in the previous test).	All outliers were flagged as being poor quality.
14	1.0	Concerns discrepancy between education levels according to background data and those provided in the survey.	Typical indicator.
15	1.0	Concerns being younger than 30 years but retired according to question 24.	Typical indicator.
16	1.0	Concerns being younger than 20 years and having a PhD or younger than 18 years and having a master's degree.	Typical indicator.

No	Weight	Weight description	Test explanation
17	0.5	Concerns being younger than 18 years but in the top income decile according to question 38.	Typical indicator.
18	1.0	Concerns selecting 'No income' in question 34 and being in an income group above the first decile in question 38.	Flagged as being inconsistent. Belonging to an income group above the first decile indicates that the respondent does have an income, which is inconsistent with stating that they do not have an income.
19	0.5	Concerns selecting working through online platforms in the past 6 months in question 6 and not selecting platform work as a source of income in question 37.	Flagged as being inconsistent. Working through online platforms was defined as gaining an income from online platforms, which is inconsistent with not selecting platform work as a source of income.
20	1.0	Concerns not selecting earning from platform work in question 37 but answering that income from platform work accounted for 26 % or more of their income in question 39.	Flagged as being inconsistent. Not receiving any income from platform work is inconsistent with saying that income from platform work accounts for more than one quarter of all personal income.
21	0.5	Concerns selecting full-time or part-time employment in question 24 and not selecting employment as a source of income in question 37.	Flagged as being inconsistent. Being employed is inconsistent with not listing employment as a source of income.
22	0.5	Concerns selecting self-employment in question 24 and not selecting self-employment as a source of income in question 37.	Flagged as being inconsistent. Being self-employed is inconsistent with not listing self-employment as a source of income.
23	0.5	Concerns selecting both that they work through platforms because they 'can combine it with my household chores' in question 18 and that the drawback of working through platforms is 'Difficulty to combine with household chores' in question 19.	Flagged as being inconsistent. Respondents could select three responses from the list, and it is not likely that the same reason would be both the main motivation and the main drawback.
24	1.0	Concerns more children living in the household than the number of household members minus the respondent.	Flagged as being inconsistent. It is not possible that there are more children in the household than total household members.
25	0.5	Respondents were flagged if they said they lived with children in question 27, but then said they lived with zero children in question 28.	Flagged as being inconsistent. Given the lower weighting as it may point to a misunderstanding or fatigue.
26	0.5	Respondents were flagged if they said they lived with grandchildren in question 27, but then said they lived with zero grandchildren in question 29.	Flagged as being inconsistent. Given the lower weighting as it may point to a misunderstanding or fatigue.
27	0.5	Respondents were flagged if they said they lived with zero children in question 28, but then said they were on maternity, paternity or parental leave in the past 3 months in question 30.	Flagged as being inconsistent. Given the lower weighting as it may point to a misunderstanding or fatigue.

4.2. Data-cleaning outcome

In summary, 556 respondents were removed from the final dataset because they provided only partial responses to the survey. After the quality and validity tests, an additional 451 respondents were removed from the dataset. The numbers of respondents removed per Member State are provided in Table 2.

Table 2. Number of respondents removed per Member State

Member State	Denmark	Spain	France	Latvia	Netherlands	Poland	Romania	Slovenia	Slovakia	Finland	Total
Partial responses	61	55	59	78	32	50	48	64	69	40	556
Data quality and validation	63	51	60	39	107	36	25	23	13	34	451
Total dropped	124	106	119	117	139	86	73	87	82	74	1 007

The application of data-cleaning procedures resulted in a final sample of 15 809 respondents, of whom 4 932 (31.2 %) were identified as platform workers. The final sample composition across the EU Member States is presented in Table 3.

Table 3. Final sample, by Member State

Member State	Sample size (platform workers)	Total sample size
Denmark	359 (25.4 %)	1 414
Spain	513 (41.3 %)	1 242
France	493 (30.0 %)	1 643
Latvia	508 (30.8 %)	1 650
Netherlands	436 (41.2 %)	1 057
Poland	527 (45.9 %)	1 149
Romania	540 (49.7 %)	1 087
Slovenia	508 (21.7 %)	2 338
Slovakia	538 (32.6 %)	1 650
Finland	510 (19.8 %)	2 579
Total	4 932 (31.2 %)	15 809

4.3. Data weighting

The use of non-probability sampling surveys can produce biased results. Estimation using non-probability sampling surveys tends to rely on post-fieldwork adjustments (i.e. weighting or modelling estimates) and on the assumptions behind these adjustments (Mercer et al., 2017). The adjustments are normally based on official probability-based data (e.g. Eurostat surveys).

Probability-based statistics on platform workers are not available; thus, the whole sample (including both platform workers and those disqualified from the survey) was compared with the official statistics on daily internet users provided by Eurostat (2020c). When compared with data from official statistical sources, people with low levels of

formal education were under-represented in all countries (see Table 10 in Annex 5). In some countries, this under-representation was severe. Men aged 25–54 were also under-represented when compared with the whole population, although to a lesser extent. If the sample under-represents internet users with low levels of education, it is likely to also under-represent platform workers with low levels of education, as platform workers are a subpopulation of internet users.

To reduce these discrepancies, post-stratification weighting was carried out. An unweighted computation of estimates from the survey would risk producing biased estimates caused by assigning less importance to under-represented groups of internet users. To avoid bias, this survey was weighted using a calibration procedure.

The survey includes three weights, which were computed using the same procedure.

- **Calibration weights (*weights* ([8])).** These were used for within-country estimates only (e.g. proportions of men and women platform workers in Slovakia, but not across all 10 countries in the sample). Calibration weights sum to the achieved sample total in each country.

- **Grossed weights (*weights_grossed*).** These were used for country-level estimates and when an estimate combined cases from multiple countries. This variable is different from *weights*, as it controls for the different size of the population of each country. It controls for the fact that Latvia has a smaller population than France even though the numbers of respondents from each country in the sample are similar. When these weights are applied, the frequencies represent the number of internet users in each country (i.e. results are reported in millions) ([9]).

- **Grossed weights scaled to the sample (*weights_grossed_scaled*).** These were used for the same cases as were used for the *weights_grossed*. When these weights are applied, the frequencies represent the number of internet users in each country scaled to the size of the sample (i.e. results are reported in hundreds).

Grossed weights were calculated by rescaling calibration weights to reflect the different sizes of populations of internet users in each country ([10]). Both grossed weights variables control for the size of each country (i.e. the number of internet users in that country) ([11]).

4.3.1. Calculation of weights

To calculate the weights, an iterative proportional fitting technique was applied using 'raking ratio estimation', also known as 'raking'. The raking algorithm uses known population totals; it adjusts the marginal frequencies of auxiliary variables in the sample to the known population totals. It involves repeated estimation of weights across a selected set of variables in turn until the weights converge and stop changing. Essentially, raking forces the survey totals of auxiliary variables to match the known population totals by assigning a weight to each respondent (Anderson and Fricker, 2015). The survey was adjusted by country, and the raking procedure included the following variables:

- age and gender,
- level of formal education.

Population estimates for the distribution (marginal frequencies) of these variables were retrieved from Eurostat (2020a, 2020b), taking data from the European Union Labour Force Survey and the Community Survey on ICT Usage in Households

([8]) Variable name used in the dataset.

([9]) When using *weights_grossed*, results will appear as if they come from a sample of millions of observations. If used wrongly, this can cause errors in certain statistical procedures that depend on sample size (e.g. variance estimations or hypothesis tests). This might happen as a result of statistical software interpreting the grossed sample numbers as the sample size.

([10]) In other words, the country sum of *weights* is equal to the sample size in each country (ranging between 1 057 in the Netherlands and 2 579 in Finland). The *weights_grossed* sum is used to match the number of internet users of countries in the overall population of internet users in the 10 selected countries. *Weights_grossed_scaled* is also used to match the number of internet users of countries in the overall population of internet users in the 10 selected countries, but scaled to the size of the sample.

([11]) For instance, if country A has three times as many internet users aged 16–54 as country B, country A will also have a sum of weights three times that of country B.

and by Individuals into account. The most recent Eurostat data were used to compute the weights for the survey data. The detailed indicators of the listed variables are presented in Table 4.

Table 4. Eurostat tables used for the computation of calibration data variables

Member state Eurostat survey	Data table	Age and gender (a)	Formal education (b)	Indicator
EU-LFS	demo_pjan	✓	✓	Number of people aged 16–54 years in each country
EU-LFS	edat_lfs_9903		✓	Proportion of people in each education category
ICT	isoc_ci_ifp_iu	✓	✓	Proportion of internet users in each country by age and gender group Proportion of internet users in each education category

NB: 'Internet users' was defined as people who use the internet on a daily basis. ICT refers to the Community Survey on ICT Usage in Households and by Individuals.

(a) Age and gender comprise four groups: female, 16–24; female, 25–54; male, 16–24; and male, 25–54 (see Annex 4). In the survey, a majority of respondents were aged between 16 and 54 years, with only eight indicating that they were aged above 54 years (0.06 % of the sample). For this reason, weights for the category 55 years of age and above were not calculated but the eight respondents in the older age group were included.

(b) Level of formal education was coded into three categories. 'Low formal education' was used for people who had completed ISCED levels 0–2, 'medium formal education' was used for people who had completed ISCED level 3 or 4 and 'high formal education' was used for people who had completed ISCED levels 5–8.

4.3.2. Weight trimming

To avoid having extremely high weights that can increase the instability of estimates (by increasing the standard errors of estimates), weight trimming can be used, with the disadvantage of possibly reducing the representativeness of the weighted data. In order to avoid excessive variance in estimates, weights were trimmed for a limited number of extreme values – those exceeding 3.91 ([12]). This threshold is lower than that used in most surveys (Eurofound, 2015; European Social Survey, 2014). Cases exceeding 3.91 were found only in the sample from Romania, as a result of a severe under-representation of users with lower levels of formal education. Weights above the threshold were redistributed equally among weights of non-trimmed respondents of the same country ([13]). Overall, trimming affected a very limited number of cases (n = 28), which correspond to around 2.6 % of the sample in Romania and less than 0.5 % of the total sample. The effect of weight trimming for Romania is presented in Table 5.

Table 5. Effect of weight trimming for Romania

Member State	Number of weights above threshold	Sum of reallocated weights
Romania	28	79.5

([12]) This value was the 97.5th percentile of the weights in Romania.

([13]) Some of the cases in Romania that received the allocation weights ended up with a weight of 3.94, which is slightly above the threshold of 3.91 at which other cases were initially trimmed.

4.3.3. Fit of the weighted sample

The tables in Annex 5 show that the initial (unweighted) sample under-represented certain groups of daily internet users (columns). Weights, even after being trimmed, help the sample to be a small-scale representation of the whole population of internet users in each country. This can be seen by comparing the frequencies in columns 'Weighted *n*' and 'Trimmed weights *n*' with those in 'Population frequencies'. For example, according to official statistics on daily internet users, a sample of 550 men in the age group 25–54 in Denmark should have been achieved. In the sample, only 499 responses were collected from that group. However, the weights assign more importance to these responses, to the effect that the weighted sample includes 550 men aged 25–54 in Denmark.

After weighting with trimmed weights, all profiles of internet users aged 16–54 should be better represented in the sample. The only exceptions are the user profiles with low levels of formal education in Romania. These will still be under-represented in the weighted sample, although to a much lesser extent than in the unweighted sample.

Although the population of internet users is probably different from the population of platform workers, all platform workers are a subset of internet users. Therefore, although the computed weights cannot ensure that the data will completely represent the actual platform users (given that no official, probability-based statistics on platform workers exist), it is appropriate to use the weights to correct for biases inherent in the sample. For example, half of the platform workers in the sample appear to be women and the other half appear to be men. Nevertheless, based on previous research, it is known that men represent a greater share of platform workers. After applying the weights, women constitute 42 % of platform workers in the sample whereas men represent 58 %.

4.2. Data anonymisation

Data processing, validation and coding were carried out in accordance with the requirements listed under Regulation (EU) 2018/1725. To guarantee respondent anonymity, personal identification variables were excluded from microdata delivered from the PPMI to EIGE.

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Annexes

Annex 1. Master questionnaire in English

Section 1. Involvement in digital economy

q1	Involvement in digital economy		
	SHOW ALL		
	Have you ever gained income from any of the following sources?		
	This was a forced-choice question. The response options were based on the European Parliament's briefing of November 2016 on a European agenda for the collaborative economy, in which five sectors of the collaborative economy were noted. Response options are mainly based on this classification, only slightly adjusted for this study's specific purposes (namely making a clearer distinction between web-based and on-location services, and adding the newer sector of leasing goods online). This is a similar, but updated, formulation to the one used in COLLEEM (Brancati et al., 2020; Pesole et al., 2018). Although this survey is not interested in other sectors of the collaborative economy, the response order helps to distinguish platform work from other types of income generation online. This is especially relevant in identifying platform workers and distinguishing them from people who generate income online in other ways. This question serves as a filter to identify digital platform workers, who are the target group for this survey. Respondents who do not select either of the last two response options are disqualified and directed to the next question (question 2). Respondents who are identified as digital platform workers are, based on their response(s), directed to questions 3 and 4.		
	MULTIPLE RESPONSES		
		Yes	No
q1_selling	Selling products or your own possessions on online marketplaces (e.g. Etsy, eBay and others)	1	0
q1_renting	Renting out real estate or accommodation on online platforms (e.g. Airbnb, ShareDesk, Nestpick and others)	1	0
q1_leasing	Leasing out goods on online platforms (e.g. Turo, PeerRenters and others)	1	0
q1_crowdfunding	Crowdfunding or lending money on peer-to-peer lending platforms (e.g. Kickstarter, Indiegogo, Zopa, Prosper, Kiva and others)	1	0
q1_pw_online	Working (freelancing) via online platforms, when work is web-based and provided remotely (e.g. IT or creative work, data entry, translation or other tasks using platforms such as Upwork, Freelancer, Clickworker, PeoplePerHour and others)	1	0
q1_pw_location	Working (freelancing) via online platforms, when work is performed on location (e.g. delivery, driving, cleaning, temporary auxiliary work or other services at a specific location, using platforms such as Uber, Deliveroo, Handy, Airtasker, TaskRabbit, MyBuilder and others)	1	0

q2_edu	Level of education
	SHOW IF q1_pw_online AND q1_pw_location = 0 (show if respondent is not engaged in platform work)
	What is the highest level of education that you have achieved?
	This question was shown to all respondents who were invited to fill in the survey but who had never engaged in platform work. They were disqualified and asked to provide information on their educational background, which was used in data weighting. The basis of response options was the ISCED 2011 classification of eight education levels (United Nations Educational, Scientific and Cultural Organization Institute for Statistics, 2012). Given the existing differences between national education systems, response options for every country were developed in consultation with native speakers, also using national labour force survey questionnaires as a guide (see Annex 3). The same question with identical wording was used in the COLLEEM surveys.
	SINGLE RESPONSE
	[TAILORED TO COUNTRY]
1	Primary education
2	Lower secondary education
3	Upper secondary education
4	Post-secondary non-tertiary education
5	Short-cycle tertiary education
6	Bachelor's or equivalent level
7	Master's or equivalent level
8	Doctoral or equivalent level
–1	Other

Section 2. Involvement in platform work

The following questions focus on your work (freelancing) using online platforms.

Please note that work (freelancing) using online platforms does not include using online websites for job search (e.g. Monster, LinkedIn and others).

q3	Type of web-based work		
	SHOW IF q1_pw_online = 1 (show if respondent is engaged in web-based platform work)		
	What type of web-based remote services have you provided via online platforms?		
	This question was displayed depending on the answers to question 1 (i.e. if web-based platform work was selected). The basis of the classification was the Joint Research Centre typology of digital labour markets, which distinguished between microtasking, tasking, physical services and interactive services (Joint Research Centre et al., 2017). 'Microtasking' and 'interactive services' remained separate options. Physical services are represented in question 4, separately. The more detailed list of 'tasking' (response options) was developed based on several sources, to make sure that it would be exhaustive. The comprehensive classification of web-based services used in the question is borrowed from the one used for the iLabour project of the Oxford Internet Institute (14).		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q3_clerical	Clerical and data-entry tasks (e.g. customer service, data entry, transcription and similar)	1	0
q3_creative	Creative and multimedia work (e.g. animation, graphic design, photo editing, audio and video content and similar)	1	0
q3_sales	Sales and marketing support work (e.g. lead generation, posting ads, social media management and content, search engine optimisation and similar)	1	0
q3_software	Software development and technology work (e.g. data science, game development, mobile development and similar)	1	0
q3_writing	Writing and translation work (e.g. article writing, copywriting, proofreading, translation and similar)	1	0
q3_micro	Microtasks (e.g. object classification, tagging, content review, taking online surveys, website feedback and similar)	1	0
q3_other_ professional	Other professional services (e.g. online tutoring or consultations, research, accounting, legal services, project management and similar)	1	0
q3_other	Other	1	0
q3_none	None of the above	1	0
q3a_specify	Other – write in:		

(14) For more information, please see http://ilabour.oii.ox.ac.uk/.

q4	Type of on-location work		
	SHOW IF q1_pw_location = 1 (show if respondent is engaged in on-location platform work)		
	What type of on-location services have you provided via online platforms?		
	This question was displayed depending on the answer to question 1 (i.e. if on-location platform work was selected). The basis of the classification was the Joint Research Centre typology of digital labour markets, which distinguished between microtasking, tasking, physical services and interactive services (Joint Research Centre et al., 2017). This question focuses specifically on the physical services and web-based remote services listed in question 3. The list of tasks was compiled by the PPMI through desk research, reviewing the main labour platforms in the surveyed countries and the services they intermediate.		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q4_transport	Transportation services (e.g. driving, moving services)	1	0
q4_delivery	Delivery services (e.g. food delivery, groceries delivery, parcel delivery)	1	0
q4_housekeeping	Housekeeping or other home services (e.g. cleaning, gardening)	1	0
q4_construction	Construction and repair work (e.g. plumbing, carpentry, appliance repair, furniture assembly)	1	0
q4_sports	Sports, beauty, health and wellness services (e.g. make-up, massage)	1	0
q4_photography	Photography services	1	0
q4_pet	Pet care and/or veterinary services (e.g. dog walking, pet healthcare)	1	0
q4_childcare	Childcare or elderly care services	1	0
q4_teaching	Teaching or counselling services	1	0
q4_tourism	Tourism and gastronomy services (e.g. tour guide services, food catering)	1	0
q4_temporary	Temporary auxiliary work	1	0
q4_mystery	Mystery shopper activities	1	0
q4_other	Other	1	0
q4_none	None of the above	1	0
q4a_specify	Other – write in:		

q5_edu	Level of education
	SHOW IF (((q3_none = 1 AND q4_none = 1) OR ((q1_pw_location = 0 AND q3_none = 1) OR (q1_pw_online = 0 AND q4_none = 1))) (show if respondent is not engaged in platform work)
	What is the highest level of education that you have achieved?
	This question was shown to all respondents who marked that they had engaged in platform work in question 1, but then selected 'None' of the types of platform work specified in questions 3 and 4. These respondents were disqualified and asked to provide information on their educational background, which was used in data weighting.
	SINGLE RESPONSE
	[TAILORED TO COUNTRY]
1	Primary education
2	Lower secondary education
3	Upper secondary education
4	Post-secondary non-tertiary education
5	Short-cycle tertiary education
6	Bachelor's or equivalent level
7	Master's or equivalent level
8	Doctoral or equivalent level
–1	Other

Section 3. Work via online platforms

q6_last_worked	Last time worked via platforms
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)
	When was the last time you worked via online platforms providing any of the services you indicated in the previous page?
	Together with question 7, this question is used as a filter to identify frequent platform workers (i.e. those who worked through a platform in the previous 6 months (question 6) more than once (question 7)). Others were directed to question 19 on the drawbacks of platform work. The key assumption here is that it is difficult for such respondents to recall the specificities of platform work. A similar formulation was used in the COLLEEM surveys. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	SINGLE RESPONSE
1	In the past week
2	In the past month, but more than a week ago
3	In the past 3 months, but more than a month ago (i.e. sometime in August–September 2020)
4	In the past 6 months, but more than 3 months ago (i.e. sometime in May–July 2020)
5	In the past 12 months, but more than 6 months ago (i.e. sometime in the period November 2019–April 2020)
6	More than 12 months ago (i.e. sometime before November 2019)

q7_work_regular	**Regularity of platform work**
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)
	How regularly did you work via online platforms?
	Together with question 6, this question is used as a filter to identify frequent platform workers (i.e. those who worked through a platform in the previous 6 months (question 6) more than once (question 7)). Others were directed to question 19 on the drawbacks of platform work. The key assumption here is that it is difficult for such respondents to recall the specificities of platform work. A similar formulation was used in the COLLEEM surveys.
	SINGLE RESPONSE
1	I worked only once or several times and then stopped
2	I worked irregularly or occasionally, from time to time
3	I worked regularly for a period of less than 3 months
4	I worked regularly for a period of more than 3 months
q8	**Year started working on online platforms**
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)
	Please indicate the year when you started working via online platforms:
	This question asks about the year when the respondent started working through online platforms. It was included following cognitive testing, during which it was decided that the length of working through online platforms may be an important predictor of wages and working conditions. Therefore, it was recommended that length of time working through online platforms was included as a covariate in models assessing gender differences in outcomes.
	CASCADING DROPDOWN MENU
q8_year_started	*Select answer between 2000 and 2020*
q9_worked_ month	**Frequency of platform work**
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)
	In the past 6 months, was there at least a month during which you worked via platforms every week?
	Together with question 11, this question assesses regularity of working through online platforms.
	SINGLE RESPONSE
1	Yes
0	No
98	Don't know
q10_work_freq	**Frequency of working on online platforms during reference week**
	SHOW IF q9_worked_month = 1
	How often did you work via online platforms that month(s)?
	Together with question 11, this question assesses regularity of working through online platforms. It was shown to respondents who said they worked for at least a month in the previous question (question 9).
	SINGLE RESPONSE
1	Every day or almost every day
2	Several times a week
3	Once a week

q11_work_future	**Future plans to engage in platform work**
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)
	Do you think you will work via online platforms in the next 6 months?
	This question was developed for this specific survey. The rationale for the inclusion of this question was that the global situation at the time of this survey was somewhat extraordinary. It is possible that some people may have started platform work as a result of the COVID-19 pandemic, and do not see themselves continuing working through online platforms in the future.
	SINGLE RESPONSE
1	Yes
0	No
98	Don't know
q12	**Most frequently used online platforms**
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)
	Which platform or platforms did you use most frequently to do the work you indicated above? ***Please enter up to 3 platforms, starting with the one that you used the most in the past 3 months.***
	The respondent is asked to add up to three digital platforms that they use the most. The list of platforms is added for the autocomplete function. The list of 255 national and international labour platforms was compiled based on the results of COLLEEM (in which there were open answers about the main platform for 6 out of 10 countries to be included in this survey), and desk research by national experts and the PPMI (see Table 8 in Annex 4). Selecting responses from the autocomplete list was not compulsory. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	VERBAL ANSWER
	[THE LIST OF NATIONAL AND INTERNATIONAL LABOUR PLATFORMS IS ADDED FOR THE AUTO-COMPLETE FUNCTION]
q12_pw1	
q12_pw2	
q12_pw3	

q13_duration	**Duration of platform tasks**		
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)		
	What was the usual duration of a task or work assignment that you conducted on the platform? ***A task or work assignment can vary from a HIT (as in Amazon Mechanical Turk, etc.), a gig or a ride (as in Uber, TaskRabbit, etc.) to a project (as in Upwork, Freelancer, etc.).***		
	Together with questions 15, 16 and 17, this question assesses patterns of work through online platforms. In combination with questions on wages and housework, these questions are used to address gender differences in scheduling and its implications for work–life balance.		
	SINGLE RESPONSE		
1	Less than 5 minutes to complete		
2	From 5 minutes up to an hour to complete		
3	Several hours, up to a day to complete		
4	Several days, up to a week to complete		
5	Several weeks or more to complete		
6	It varies: some tasks are longer, and some are shorter		
q14	**Duration of tasks of varying length**		
	SHOW IF q13_duration = 6		
	Please specify what the duration of these varying tasks can be? ***Please select all that apply.***		
	This question was shown to those respondents who, in question 13, said the time it takes them to complete a task varies.		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q14_few_minutes	Less than 5 minutes to complete	1	0
q14_minutes	From 5 minutes up to an hour to complete	1	0
q14_hours	Several hours, up to a day to complete	1	0
q14_days	Several days, up to a week to complete	1	0
q14_weeks	Several weeks or more to complete	1	0

Section 4. Platform work schedules and organisation

q15	**Time spent in platform work per week**					
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)					
	Think about the most recent week that you have worked via online platforms. How many hours per week did you spend searching or waiting for tasks/work assignments, and how many implementing them?					
	Together with questions 13, 16 and 17, this question assesses patterns of work through online platforms. In combination with questions on wages and housework, these questions are used to address gender differences in scheduling and its implications for work–life balance. Respondents are asked to write the number of hours spent searching for tasks and the number of hours spent carrying out tasks through online platforms in open-ended response boxes, the sums of which are used to assess the time spent providing services through online platforms. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).					
	NUMERICAL ANSWER					
q15_searching	Hours per week searching or waiting for tasks/work assignments:					
q15_implementing	Hours per week implementing tasks/work assignments:					
q16	**Work organisation**					
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)					
	This question is about your work schedule and combining platform work with your other activities. Thinking about your experience of working via online platforms in the past 6 months, how often were you faced with the following situations:					
	Together with questions 13, 15 and 17, this question assesses patterns of work through online platforms. In combination with questions on wages and housework, these questions are used to address gender differences in scheduling and its implications for work–life balance. Items encompass work organisation (atypical schedule), adapted from the EWCS, and predictability of working schedule. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).					
	SINGLE RESPONSE					
		Never	Rarely	Sometimes	Often	Always
q16_secure_tasks	I was able to secure tasks/work assignments via online platforms according to my plans or schedules	1	2	3	4	5
q16_worked_fixed	I worked fixed starting and finishing times	1	2	3	4	5
q16_could_plan	I could plan when and how much I would work via platform(s) well in advance	1	2	3	4	5
q16_reject	I had to reject a task/work assignment because of my other commitments	1	2	3	4	5
q16_nights	I worked on nights and/or weekends	1	2	3	4	5
q16_hours_scattered	My working hours on platform(s) were scattered throughout the day, in between other activities	1	2	3	4	5
q16_distracted	I was distracted by my other commitments (e.g. other work, urgent housework, family matters) when performing tasks/work assignments via online platforms	1	2	3	4	5

q17	Reasons for difficulties in planning the platform work schedules		
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)		
	What factors influenced your working time and schedules on online platforms in the period of the past 6 months? ***Please select up to 3 factors that had the most influence for your work on online platforms.***		
	Together with questions 13, 15 and 16, this question assesses patterns of work through online platforms. In combination with questions on wages and housework, these questions are used to address gender differences in scheduling and its implications for work–life balance. Items include the main factors that affect the respondent's working schedule, and encompass preferences and family commitments.		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q17_availability	Availability of tasks/work assignments on platforms during specific times of day, week, month or other period	1	0
q17_commitments	Other commitments outside online platforms (e.g. job, studies)	1	0
q17_childcare	Caring for and/or educating children	1	0
q17_eldercare	Caring for disabled, elderly or infirm family members, neighbours or friends	1	0
q17_clients_ preference	Preferences or rules of your clients	1	0
q17_chores	Household chores, such as cleaning, cooking, repairing	1	0
q17_personal_ preference	Your personal preferences when to work via online platforms and when to engage in other activities	1	0
q17_other	Other	1	0
q17_DK	Don't know	1	0
q17a_specify	Other – write in:		

Section 5. Motivation

q18	Motivational factors to work through digital platforms		
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)		
	Think about the reasons why you worked via online platforms. Which of the factors listed below were the most important for you? ***Please select up to 3 most important factors.***		
	Items include push and pull factors that may point to gender differences among platform workers. The common motivation 'Fits my schedule' is separated into two parts to cover household/childcare and other commitments for a more detailed gender analysis. Together with question 19, this question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q18_no_jobs	There are no regular job opportunities for me	1	0
q18_laid_off	I was laid off from my job	1	0
q18_earn	It is a good way to earn (additional) income	1	0
q18_combine	I can combine it with my household chores and/or family commitments (e.g. caring for children or elderly)	1	0
q18_compatible	It is compatible with my other regular activities (e.g. job, studies, hobbies, social activities)	1	0
q18_skills	It is a way to develop skills or build professional portfolio	1	0
q18_choose	I can choose when and where I work	1	0
q18_global	I can work globally or get more clients from different countries or cities	1	0
q18_interests	My platform work tasks are related to my interests or hobbies	1	0
q18_other	Other	1	0
q18a_specify	Other – write in:		

Section 6. Drawbacks of platform work

q19	Negative aspects of platform work		
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)		
	From your experience, what are the main drawbacks of working via online platforms? ***Please select up to 3 most negative aspects of platform work that you have personally experienced.***		
	This question was developed for this specific survey, with some of the answer options chosen on the basis of the Flash Eurobarometer 467 report (European Commission, 2021b). The response options cover at least four dimensions: personal preferences (including push and pull factors), issues caused by platforms, issues caused by clients (or lack thereof) and regulatory issues. Together with question 18, this question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q19_boring	Boring, uninteresting tasks or work assignments	1	0
q19_difficult_chores	Difficulty to combine with household chores and/or family commitments	1	0
q19_social_security	Poor access to social security (e.g. health insurance, sick leave, benefits)	1	0
q19_low_pay	Low or unfair pay	1	0
q19_advancement	Lack of possibilities for skills and career advancement	1	0
q19_issues_platform	Issues with the platform(s) (e.g. unfair terms and conditions, issues with booking process)	1	0
q19_issues_clients	Issues with clients (e.g. unfair, unreasonable client demands)	1	0
q19_difficult_secure	Difficulties in securing tasks/work assignments on platforms	1	0
q19_stress	Stressful nature of work via online platforms	1	0
q19_unfair	Unfair ratings or disproportionate influence of rating system on your work	1	0
q19_safety	Poor health and safety conditions at work	1	0
q19_competition	High competition for tasks / work assignments	1	0
q19_unpredictable_hours	Unpredictable working hours	1	0
q19_unpredictable_income	Unpredictable income	1	0
q19_other	Other	1	0
q19_none	None	1	0
q19_DK	Don't know	1	0
q19a_specify	Other – write in:		

q20	Discriminatory practices		
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)		
	While providing services via online platforms, have you ever felt treated unfairly for any of the following reasons? ***Please select all that apply.***		
	This question is based on EWCS, with answer options reworded and expanded based on discussions with EIGE. It was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q20_age	Your age (such as being too young or too old)	1	0
q20_skin	Your skin colour	1	0
q20_nationality	Your nationality or ethnic origin	1	0
q20_sex	Your sex or gender (such as being a woman or a man)	1	0
q20_body	Your body shape or weight	1	0
q20_religion	Your religion or religious beliefs	1	0
q20_illness	Your illness or disability	1	0
q20_language	Your language or accent	1	0
q20_sexual_orientation	Your sexual orientation (such as being gay, lesbian or bisexual) or gender identity	1	0
q20_other	Other	1	0
q20_none	None of the above	1	0
q20a_specify	Other – write in:		

Section 7. COVID-19

Q21	Broader impact of COVID-19			
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)			
	Since March 2020, have you experienced any of the following situations because of the COVID-19 pandemic or related policy measures (e.g. lockdowns, quarantine, closures of businesses, schools, etc.)?			
	This question concerns the overall situation of the respondent, not necessarily linked to platform work. Questions are taken from Eurofound's e-survey Living, Working and COVID-19 conducted in April 2020 across the EU, with additional answer options added by EIGE (Eurofound, 2020b).			
	MULTIPLE RESPONSES			
		Yes	No	Not applicable
q21_covid_job	I lost my paid job	1	0	99
q21_covid_partner_job	My spouse or partner lost paid job	1	0	99
q21_covid_ finances	My household's financial situation deteriorated	1	0	99
q21_covid_ accommodation	I had to leave my accommodation because I could no longer afford it	1	0	99
q21_covid_chores	I had to spend more time for household chores and care (e.g. of children, disabled, elderly or infirm family members, neighbours or friends)	1	0	99
q21_covid_leave_sick	I had to take leave or time off from paid job because I was sick	1	0	99
q21_covid_leave_ quarantine	I had to take leave or time off from paid job because I was in quarantine or self-isolation	1	0	99
q21_covid_leave_ closed	I had to take leave or time off from paid job because it was closed, lost clients or significantly reduced business activities	1	0	99

q22	**Receipt of COVID-19 support**		
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)		
	Have you received any of the following forms of support since the outbreak of COVID-19 pandemic? ***Please select all that apply.***		
	This question assesses receipt of official individual support during the pandemic, including support from non-governmental organisations, informal support, income support and support with expenses. Questions are taken from Eurofound's e-survey Living, Working and COVID-19 conducted in April 2020 across the EU (Eurofound, 2020b). This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q22_covid_support	Any form of support from relatives or friends	1	0
q22_covid_ngo	Any form of support from non-governmental organisations and charities	1	0
q22_covid_sickleave	Paid sick leave or paid care leave (for example, if you had to self-isolate or take care of children or dependent adults)	1	0
q22_covid_wage	Wage support (supplement or replacement while still in employment or short-time working schemes)	1	0
q22_covid_unemployment	Unemployment benefit	1	0
q22_covid_deferral	Deferral, reduction or cancellation of tax, bill, mortgage, loan or debt payments	1	0
q22_covid_other	Other	1	0
q22_covid_none	None of the above	1	0
q22a_specify	Other – write in:		
q23_covid_pw	**Type of impacts of COVID-19 on platform work**		
	SHOW IF q6_last_worked < 6 (show if respondent worked via online platforms in the past 12 months)		
	Has the COVID-19 pandemic or related policy measures (e.g. lockdowns, quarantine, closures of businesses, schools, etc.) impacted your work via online platforms?		
	This question looks at the impact of the COVID-19 pandemic on engagement in platform work. It was designed for this specific survey in discussion with EIGE. It was shown to respondents who had worked through online platforms in the previous 12 months (question 6).		
	SINGLE RESPONSE		
1	Yes, because of it I started or restarted working via online platforms		
2	Yes, because of it I worked more hours via online platforms		
3	Yes, because of it I worked fewer hours via online platforms		
4	Yes, because of it I stopped working on online platforms		
5	No		

Section 8. Employment situation

q24_activity	Employment situation
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)
	Which of the following best describes your current employment situation besides platform work? ***Please consider your employment situation besides platform work. In other words, we would like to know if you also have a regular employment or another labour market status.***
	The response categories correspond to those used in Eurostat's (2020a) Community Survey on ICT Usage in Households and by Individuals, although the question and its answer options are formulated by combining several questions from the survey. These data are comparable to national labour force survey data. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	SINGLE RESPONSE
1	Employed full-time
2	Employed part-time
3	Self-employed or family worker
4	Unemployed
5	Retired
6	Unable to work due to long-standing health problems
7	Student, pupil (not in the labour force)
8	Full-time homemaker
9	In compulsory military or civilian service
–1	Other
q25	**Working time**
	SHOW IF q24_activity = 1 THRU 3
	Think about the most recent week you have worked in this job(s). How many hours per week did you work? ***Take into account all paid activities in the job that you referred to in the answer to the previous question. Please do not consider the time you work using online platforms.***
	This question was designed for this specific survey. It contains an open-ended response box. It was shown to respondents who said they were 'Employed full-time', 'Employed part-time' or 'Self-employed or family worker' in question 24. Together with question 24, this question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	NUMERICAL ANSWER
q25_hours_worked	

Section 9. Household composition

q26	**Number of people in the household**		
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)		
	How many persons (including you) are currently living in your household?		
	The formulation of this question is comparable to that used in the EWCS. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).		
	NUMERICAL ANSWER		
q26_hh			
q27	**Relationship to people in household**		
	SHOW IF q26 > 1 (show if respondent does not live alone)		
	We would like to ask about people who live with you. Who are they? ***Please select all that apply.***		
	Respondents were filtered based on the previous question (i.e. they were shown this question if they responded that there was more than one person living in their household). Based on the measurement proposed by the United Nations Economic Commission for Europe (2012), the number of options was reduced by combining options and adapting their formulation to online survey mode.		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q27_partner	Partner or spouse	1	0
q27_children	Children (biological, adopted, foster and/or stepchildren)	1	0
q27_grandchildren	Grandchildren (biological, adopted, foster and/or stepchildren)	1	0
q27_relatives	Your or your partner's or spouse's other relatives	1	0
q27_nonrelatives	Non-relatives	1	0
q28	**Number of children in the household by age group**		
	SHOW IF q27_children = 1		
	How many children (biological, adopted, foster and/or stepchildren) of different ages live with you?		
	Respondents were filtered based on the answer to question 27 (i.e. living with children). This question does not, for example, cover parents who do not live with their children but do economically support them / pay child support or provide financial support for student children. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).		
	NUMERICAL ANSWER		
q28_children1	Children under the age of 3:		
q28_children2	3–6 year old children:		
q28_children3	Children older than 6:		

q29	**Number of grandchildren in the household by age group**
	SHOW IF q27_grandchildren = 1
	How many grandchildren (biological, adopted, foster and/or stepchildren) of different ages live with you?
	Respondents were filtered based on the answer to question 27 (i.e. living with grandchildren). This question does not, for example, cover grandparents who do not live with their grandchildren but do economically support them or provide financial support for student grandchildren. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	NUMERICAL ANSWER
q29_grandchildren1	Grandchildren under the age of 3:
q29_grandchildren2	3–6-year-old grandchildren:
q29_grandchildren3	Grandchildren older than 6:
q30_maternity	**Recent use of maternity, paternity or parental leave**
	SHOW IF q27_children = 1
	In the past 3 months, have you been on a maternity, paternity or parental leave from your work?
	Respondents were filtered based on the answer to question 27 (i.e. living with children).
	SINGLE RESPONSE
1	Yes
0	No

Section 10. Housework and care responsibilities

q31	**Hours spent doing unpaid household labour**
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)
	In general, how many hours per week do you usually spend performing the following activities? ***Please only consider the activities performed outside paid work (i.e. those that you are not paid for).***
	The formulation is similar to that used in the European Quality of Life Survey. However, in the original question, frequency was measured by asking 'how often', whereas this survey asks about the number of hours per week.
	NUMERICAL ANSWER
q31_hours_hh	Household work, not including childcare and leisure time activities:
q31_hours_children	Taking care of, educating and playing with children:
q31_hours_elderly	Taking care of disabled, elderly or infirm family members, neighbours or friends:

q32	Division of household labour				
	SHOW IF q27_partner = 1				
	Thinking about the division of work in your household, how involved are you in comparison to your partner or spouse in each of these activities? ***Please only consider the activities performed outside paid work (i.e. those that you are not paid for).***				
	This question was shown only to respondents who live with their partner (question 27).				
	SINGLE RESPONSE				
		I do more than my partner or spouse	We share roughly equally	My partner or spouse does more than me	Don't know / not applicable
q32_chores	Household work, not including childcare and leisure time activities	1	2	3	98
q32_childcare	Taking care of, educating and playing with children	1	2	3	98
q32_eldercare	Taking care of disabled, elderly or infirm family members, neighbours or friends	1	2	3	98

Section 11. Partner or spouse

q33_activity_partner	Partner's employment situation
	SHOW IF q27_partner = 1
	Which of the following best describes the current employment situation of your spouse or partner?
	The response categories correspond to those used in Eurostat's Community Survey on the ICT Usage in Households and by Individuals (the question and its answer options are formulated by combining several questions from the survey). These data are comparable to national labour force survey data. This question was shown only to respondents who live with their partner (question 27).
	SINGLE RESPONSE
1	Employed full-time
2	Employed part-time
3	Self-employed or family worker
4	Unemployed
5	Retired
6	Unable to work due to long-standing health problems
7	Student, pupil (not in the labour force)
8	Full-time homemaker
9	In compulsory military or civilian service
–1	Other

q34_higher_income	Division of income in the household
	SHOW IF q27_partner = 1
	Considering all sources of income, between you and your partner or spouse, who has the higher income?
	This question was shown only to respondents who live with their partner (question 27). It was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	SINGLE RESPONSE
1	My spouse or partner has no income
2	I have higher income
3	We have about the same income
4	My partner or spouse has a higher income
5	I have no income
98	Don't know

Section 12. About you

q35	Country of birth
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)
	Please indicate the year when you started working via online platforms:
	This is a standard question used in various other surveys. The variable allows the identification of whether the respondent is a first-generation immigrant. The variable can be used in intersecting inequalities analysis. Answer options were listed in alphabetical order. The question was also included in the COLLEEM II survey (Brancati, Pesole and Fernández-Macías, 2020). It was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	CASCADING DROPDOWN MENU
q35_country_born	Select answer from list of countries of birth
q36_edu	**Level of education**
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)
	What is the highest level of education that you have achieved?
	This question was shown to all platform workers.
	SINGLE RESPONSE
	[TAILORED TO COUNTRY]
1	Primary education
2	Lower secondary education
3	Upper secondary education
4	Post-secondary non-tertiary education
5	Short-cycle tertiary education
6	Bachelor's or equivalent level
7	Master's or equivalent level
8	Doctoral or equivalent level
–1	Other

Section 13. Income

q37	Types of income		
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)		
	In the past 6 months, what kinds of income did you personally receive? ***Please select all that apply.***		
	The basis of response options was the European Union Statistics on Income And Living Conditions (EU-SILC) 2018 classification of personal income components, excluding near-cash income (e.g. company car) and including a category for 'Income from work via online platforms' (Eurostat, 2019). Several categories were integrated for brevity (pension from individual private plans, state pension (old-age benefits), survivor's benefits (e.g. widows, widowers, orphans), and sickness and disability benefits). This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).		
	MULTIPLE RESPONSES		
		Checked	Unchecked
q37_employment	Earnings from employment	1	0
q37_pw	Earnings from work via online platforms	1	0
q37_selfemployment	Earnings from self-employment (other than work via online platforms)	1	0
q37_pension	Pension (state, personal or from former employer) or survivor's benefits (e.g. widows, widowers, orphans)	1	0
q37_unemployment	Unemployment benefits	1	0
q37_sickness	Sickness and disability benefits	1	0
q37_allowances	Education-related allowances (e.g. stipend or scholarship)	1	0
q37_credits	Tax credits	1	0
q37_other	Other sources	1	0
q37_none	No source of personal income	1	0

q38_income	**Average personal monthly income after taxes**
	SHOW IF q3_none OR q4_none ≠ 1 (show if respondent is engaged in platform work)
	In the past 6 months, what was your average personal monthly income after taxes? ***Please consider all the sources of income that you indicated above.***
	Income ranges both in national currencies and in euro were constructed based on Eurostat's income distribution data from EU-SILC and the European Community Household Panel surveys (see Annex 2). Eurostat provides distribution of income by quantiles in both euro and national currencies. A similar approach (i.e. income ranges based on national income quantiles) was applied in COLLEEM and the crowdworking survey by the Foundation for European Progressive Studies, implemented in several EU countries. This approach helps to address several issues with income measurement. Questions about income in cross-national surveys are generally complicated because of different currencies and levels of income among countries. For example, using the same scale (income ranges) in all countries could not properly capture variance in income levels in the countries with the lowest (e.g. Romania) and highest (e.g. Denmark, the Netherlands) incomes. A possible alternative would be to ask about absolute numbers, but this is sensitive (resulting in a high risk of item non-response), requires more effort from the respondent to estimate exact sums and requires more post-fielding adjustments. This question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	SINGLE RESPONSE
	[TAILORED TO COUNTRY]
1	Below first poorest income decile (< 10 %)
2	Between first income decile and first quartile (10–25 %)
3	Between first and second income quartiles (25–50 %)
4	Between second and third income quartiles (50–75 %)
5	Between third quartile and ninth income decile (75–90 %)
6	Above ninth income decile in their country (> 90 %)
99	I prefer not to answer
q39_income_pw	**Share of income from platform work**
	SHOW IF q6_last_worked < 5 AND q7_work_regular > 1 (show if respondent works regularly via online platforms)
	In the most recent month when you worked via online platforms, what percentage of your overall personal income (after taxes) came from this work via online platforms?
	This question was designed for this specific survey. Ranges were chosen because a question asking for absolute numbers is probably too sensitive, resulting in a risk of item non-response. EIGE selected not to ask the respondents to calculate the exact share, because the cognitive interviews for COLLEEM II showed that this is a difficult cognitive task and the estimates provided are very imprecise. Together with question 38, this question allows the estimation of the digital work income ranges. Together with question 37, this question was used in logical testing in post-fielding to identify inconsistent responses (more information is provided in Section 4.1).
	SINGLE RESPONSE
1	Less than 10 %
2	Between 10 % and 25 %
3	Between 26 % and 50 %
4	Between 51 % and 75 %
5	Between 76 % and 100 %
98	Don't know

Annex 2. National income ranges

Table 6. National income ranges

Member State	Income ranges					
	Below the first income decile (< 10 %)	Between the first income decile and the first quartile (10–25 %)	Between the first and second income quartiles (25–50 %)	Between the second and third income quartiles (50–75 %)	Between the third income quartile and the ninth income decile (75–90 %)	Above the ninth income decile (> 90 %)
Denmark	Op til 10 700 kr	10 701–14 300 kr	14 301–19 000 kr	19 001–25 400 kr	25 401–32 500 kr	Mere end 32 500 kr
Spain	Menos de 550 €	551–850 €	851–1 250 €	1 251–1 850 €	1 851–2 500 €	Más de 2 500 €
France	Jusqu'à 1 050 €	1 051–1 400 €	1 401–1 850 €	1 851–2 550 €	2 551–3 350 €	Plus de 3 350 €
Latvia	Līdz 300 €	301–450 €	451–700 €	701–1 050 €	1 051–1 450 €	Vairāk kā 1 450 €
Netherlands	Tot 1 200 €	1 201–1 500 €	1 501–2 100 €	2101–2 700 €	2 701–3 600 €	Meer dan 3 600 €
Poland	Do 1 300 zł	1 301–1 800 zł	1 801–2 500 zł	2 501–3 400 zł	3 401–4 600 zł	Powyżej 4 600 zł
Romania	Până la 600 lei	601–1 000 lei	1 001–1 500 lei	1 501–2 300 lei	2 301–3 100 lei	Peste 3 100 lei
Slovenia	Do 650 €	651–900 €	901–1 200 €	1 201–1 500 €	1 501–1 900 €	Preko 1 900 €
Slovakia	Menej ako 400€	401–550 €	551–650 €	651–850 €	851–1 000 €	Viac ako 1 000 €
Finland	Enintään 1 200 €	1 201–1 500 €	1 501–2 100 €	2 101–2 800 €	2 801–3 600 €	Yli 3 600 €

NB: Based on 2018 EU-SILC and European Community Household Panel survey data (Eurostat, 2001, 2018) acquired from Eurostat on 15 July 2020.

Annex 3. National education levels

Table 7. National education levels

Member State	S							
	1	2	3	4	5	6	7	8
	Primary education	Lower secondary education	Upper secondary education	Post-secondary non-tertiary education	Short-cycle tertiary education	Bachelor's or equivalent level	Master's or equivalent level	Doctoral or equivalent level
DK	Grundskole *(0–6 klasse)*	Grundskole *(7–10 klasse)*	Gymnasiale og erhvervsfaglige uddannelser	Forberedelseskurser	Korte og mellemlange videregående uddannelser	Akademiske og professionsbachelorer	Lange videregående uddannelser	Ph. d. og forskeruddannelser
ES	Educación primaria	Educación secundaria obligatoria *(p. ej., ESO, ciclos formativos FP Básica, FP I, BUP)*	Educación secundaria completa *(p.ej., bachillerato, ciclos formativos de grado medio, COU, FP II)*	Educación postsecundaria no superior	Diplomatura universitaria	Grado o licenciatura universitaria	Máster o equivalente	Doctorado o equivalente
FR	Enseignement primaire	Premier cycle de l'enseignement secondaire *(comme un BEP)*	Second cycle de l'enseignement secondaire ***(comme le baccalauréat,*** *diplôme supérieur/de progression, baccalauréat technologique, professionnel ou brevet de technicien)*	Enseignement secondaire supérieur et post-secondaire non supérieur *(enseignement pré-universitaire)*	Études supérieures courtes à vocation professionnelle *(comme un BTS/DUT)*	Baccalauréat (Licence) ou équivalent [15]	Maîtrise/Master ou équivalent	Doctorat ou équivalent
LV	Pamatizglītības pirmais posms *(Vispārējā izglītība (1.–6. klase) programmas)*	Pamatizglītības otrais posms *(Vispārējā izglītība (7.–9. klase) programmas)*	Vidējā izglītība	Pēcvidējā izglītība	Koledžas izglītība *(1. līmeņa profesionālā augstākā izglītība)*	Bakalaura grāds *(akadēmisko augstāko izglītību, Profesionālo augstāko izglītību)*	Maģistra grāds *(akadēmisko maģistra studijas, profesionālo maģistra studijas)*	Doktora grāds

([15]) Please note that this was a literal translation. In France, *baccalauréat* refers to educational attainment level equivalent to secondary education. Bachelor's or equivalent level of educations is in France referred to as *licence*. The text in brackets and order of response options should have improved the respondent understanding despite the imprecise translation.

Member State	S							
	1	2	3	4	5	6	7	8
	Primary education	Lower secondary education	Upper secondary education	Post-secondary non-tertiary education	Short-cycle tertiary education	Bachelor's or equivalent level	Master's or equivalent level	Doctoral or equivalent level
NL	Primair onderwijs *(Groep 3 tot 8 van de basisschool en het speciaal onderwijs; leerlingen van 6 jaar en ouder)*	Lager secundair onderwijs *(Beroepsgericht: WEB-assistentenopleiding (mbo niveau 1), Praktijkonderwijs, vmbo klas 3–4. Algemeen: vmbo klas 1–2 (3,4). Havo/vwo klas 1–3, vavo (vmbo-niveau), svo)*	Hoger secundair onderwijs *(Beroepsgericht: WEB-basisberoepsopleiding (mbo niveau 2–3); WEB vakopleiding (mbo niveau 2–4); WEB middenkaderopleiding (mbo niveau 3–4); Algemeen: Klas 4–6 havo/vwo, vavo (havo/vwo-niveau))*	Post-secundair niet-tertair onderwijs *(WEB specialistenopleiding (mbo niveau 4), 1-jarig hbo)*	Kort tertiair onderwijs *(Associate degree opleidingen (2–3 jarig hbo))*	Tertiair onderwijs (Bachelor) *(wo-bachelor, hbo-bachelor, post-hbo opleiding)*	Tertiair onderwijs (Master) *(wo-master, hbo-master)*	Doctoraat *(geпromoveerden, wo-doctor)*
PL	Podstawowe	Gimnazjalne	Ponadgimnazjalne *(zasadnicze zawodowe, średnie ogólne, średnie techniczne)*	Policealne	Wyższe – krótki cykl	Wyższe licencjackie	Wyższe magisterskie	Doktorat
RO	Învățământul primar *(Scoala Primara)*	Învățământul gimnazial inferior	Învățământul gimnazial superior *(Liceu)*	Educație non-terțiară post-gimnazială *(Post-liceala)*	Educație terțiară de ciclu scurt *(Învățământul profesional)*	Nivel de licență sau echivalent	Nivel de masterat sau echivalent	Nivel de doctorat sau echivalent
SI	Primarno izobraževanje: osnovnošolsko izobraževanje od 1. do 6. razreda *(1. in 2. vzgojno-izobraževalno obdobje)*	Nižje sekundarno izobraževanje: osnovnošolsko izobraževanje od 7. do 9. razreda *(3. vzgojno-izobraževalno obdobje)*	Višje sekundarno izobraževanje: srednješolsko izobraževanje	Posekundarno neterciarno izobraževanje	Krajše terciarno izobraževanje: višje strokovno izobraževanje	Prva stopnja *(Dodiplomski študij): izobraževanje po študijskih programih prve stopnje*	Druga stopnja *(Magisterski študij): izobraževanje po študijskih programih druge stopnje*	Doktorsko izobraževanje: doktorsko izobraževanje *(študijski programi tretje stopnje)*
SK	Základné *(1 – 4 ročník)*	Základné *(5 – 9 ročník) a nižšie stredné (učilište)*	Úplné stredné s maturitou/bez maturity	Postsekundárne – nadstavbové, pomaturitné	Vyššie odborné ukončené absolutóriom	Vysokoškolské I. stupňa – bakalárske	Vysokoškolské II. stupňa – magisterské, inžinierske, doktorské	Vysokoškolské III. stupňa – doktoranské
FI	Alempi perusaste *(peruskoulun luokat 1–6)*	Ylempi perusaste *(peruskoulun luokat 7–9)*	Keskiaste (toisen asteen ammatillinen koulutus *(ammatilliset perustutkinno, ammattitutkinnot), lukio)*	Keskiaste *(erikoisammattitutkinnot, ammatillisen opistoasteen tutkinnot)*	Alin korkea-aste *(ammatillisen opistoasteen tutkinnot)*	Ylempi ammattikorkeakoulu ja yliopistojen alemmat korkeakoulututkinnot (kandidaatti)	Yliopistojen ylemmät korkeakoulututkinnot, maisteri	Tutkijakoulutusaste

Annex 4. List of national and international labour platforms

Table 8. List of national and international labour platforms

123dopyt.sk	Helpling.com	Wilio.com	Envato.com	Microjob.sk	Teachable.com
Adecco	Heykiddo.se	Wolt	Euroclix.nl	Mobrog.com	TestBirds.com
Adia.ch	Hilfr.dk	Workis.online	Facebook.com	Moolineo.com	TextBroker.com
Airbnb Experiences	Hlidacky.sk	Yandex.Taxi	FieldAgent.net	MotaWord.com	TextMaster.com
Airtasker.com	HodinovýManžel.sk	Yoopies.com	FirstTutors.com	MySurvey.com	Timeetc.com
Appjobber.com	Hungry.dk	Zaask.pt	Fiverr.com	Mytonapiseme.sk	Titans.sk
Babysitting.sk	Jobbi.dk	24HourAnswers.com	Flexjobs.com	NapíšemTiPrácu.sk	Toluna
Bark.com	Jószaki.hu	5euros.com	Flickr.com	Neobux.com	Topcontent.com
Beeping.si	Just-Eat.com	99designs.com	Freelance.nl	Nerot.fi	Toptal.com
BeMyEye.com	Medwing	abogados365.com	FreelanceHunt	NetOpiniões.com	TrabajoFreelance.com
Bistro.sk	MentorDanmark.dk	Adecco	Freelancer.com	Nicequest.com	TranscribeMe.com
BlaBlaCar	Meploy.me	ADIA	GamerSensei.com	Omisli.si	Transfluent.fi
BlackCab	Mercadona.es	Airtasker.com	Gengo.com	Parlam.es	Translated.com
Bolt	MetraCheck.com	Altaopinione.it	Gerson Lehrman Group	PeoplePerHour.com	Truelancer.com
Bolt Food	Microjob.sk	Amazon Mechanical Turk/mturk.com	GetPaidSurveys.com	Picoworkers.com	Tusclasesparticulares.com
Bsit	Microjob.sk	Appen.com	Gigster.com	Placla.sk	TutorCompass.de
BuzzHire	MobiAudit	Appjobber.com	Grin.com	Podklady.sk	Twago.com
Cabify.com	Mojmojster.net	Applause.com	Guru.com	PracticeTape.com	Upwork.com
Care.com	Moppi.com	ArtCorgi.com	Heroes Jobs	Preply.com	UserTesting.com
Deliveroo	MoverTransport.com	Artstation.com	HireWriters.com	Primerjam.si	Viespar.ro
DogBuddy.com	MyBuilder.com	Avoteca.com	Idle-empire.com	Prodicta.com	Voocali.com
DogVacances.fr	My-Hammer.de	Axiomlaw.com	Instagram	Prolific.co	Vsprace.sk
Domelia.sk	My-Nanny.se	Bark.com	IQfactory	ProZ.com	Weblancer.net
Domestico24.es	MyPoppins.com	Birchbox.es	i-Say.com	Publicfast.com	Weludo.com
Dones.to	Ola.co.uk	BlastingNews.com	Jaspravim.sk	Qmee.com	Wengo.fr
doPrinesi.si	Omisli.si	Brandsupply.com	Jobspresso.co	Qualimetrie.com	Wilio.com
Doučma.sk	OpenClassrooms.com	BusinessTalentGroup.com	Jószaki.hu	Quotas.de	Workana.com
Ehrana.si	Panelopinea.fr	Clickworker.com	Jovoto.com	Raterhub.com	WorkGenius.com
Ele.me	Primerjam.si	Codeable.io	Kolabtree.com	RedBubble.com	WorkMarket
Entrenar.me	ProntoPro.it	Consupermiso.com	Kwork.com	Rev.com	Worksome.dk
Exact.ro	Roamler.com	Content.de	Lambdaschool.com	Scribeur.com	WowApp
Fermeria.sk	Rover.com	Conyac.cc	LegalDutch.com	Skillshare.com	Writerscareer.com
FieldAgent.net	StarofService.dm	CreatorUp.com	Liberprofi.ro	Skyword.com	Yappersclub.com
FirstTutors.com	Streetspotr.com	CrowdGuru.de	LifePointsPanel.com	Solved.fi	YouNow
Florence.co.uk	Superprof	Crowdspring.com	Lionbridge.com/The Smart Crowd	SoyFreelancer.com	YouTube
Foodora	Takeaway.com	Crowdville.net	Liveops.com	StarofService.dm	ySense.com (Clixsense)
Free Now	TaskRabbit.com	DesignCrowd.com	Loonea.com	Substack.com	Zaask.pt
Gett	Thuisbezorgd	Doučma.sk	Lowpost.com	Superprof	Zapsurveys.com
Glovo	Treamer.com	EarnHoney.com	Malt	Surveybee.dk	Zhubajie
Gomore.dk	Uber	Edit-Place.co.uk	Marketagent.com	Surveyeah.com	Zt.com.pl
GreenPanthera.com	Uber Eats	Eloot.gg	Mbopartners.com	Swagbucks.com	
Handy	ViaVan	Encuestas Remuneradas.es	Melascrivi.com	TalentNet	
HappyHelper.dk	WerkSpot.nl	Entrenar.me	Microjob.sk	TalkOnlinePanel.com	

Annex 5. Comparison of frequencies after weighting

Table 9. Comparison of sample and population frequencies by age and gender

Member State	Gender, age (years)	Unweighted n	Weighted n	Trimmed weights n	Population frequencies
Denmark	Female, 16–24	197	162	162	162
	Female, 25–54	565	538	538	538
	Male, 16–24	153	165	165	165
	Male, 25–54	499	550	550	550
Spain	Female, 16–24	263	110	110	110
	Female, 25–54	468	512	512	512
	Male, 16–24	169	117	117	117
	Male, 25–54	342	504	504	504
France	Female, 16–24	307	184	184	184
	Female, 25–54	710	652	652	652
	Male, 16–24	184	199	199	199
	Male, 25–54	442	608	608	608
Latvia	Female, 16–24	320	148	148	148
	Female, 25–54	682	694	694	694
	Male, 16–24	200	157	157	157
	Male, 25–54	448	651	651	651
Netherlands	Female, 16–24	152	118	118	118
	Female, 25–54	473	405	405	405
	Male, 16–24	120	121	121	121
	Male, 25–54	312	413	413	413
Poland	Female, 16–24	262	119	119	119
	Female, 25–54	306	454	454	454
	Male, 16–24	261	123	123	123
	Male, 25–54	320	453	453	453
Romania	Female, 16–24	209	120	135	120
	Female, 25–54	408	406	403	406
	Male, 16–24	156	129	140	129
	Male, 25–54	314	432	409	432
Slovenia	Female, 16–24	295	209	209	209
	Female, 25–54	1 069	904	904	904
	Male, 16–24	181	224	224	224
	Male, 25–54	793	1 002	1 002	1 002

Member State	Gender, age (years)	Unweighted n	Weighted n	Trimmed weights n	Population frequencies
Slovakia	Female, 16–24	373	154	154	154
	Female, 25–54	585	658	658	658
	Male, 16–24	256	162	162	162
	Male, 25–54	436	676	676	676
Finland	Female, 16–24	551	269	269	269
	Female, 25–54	1 094	989	989	989
	Male, 16–24	189	284	284	284
	Male, 25–54	745	1 037	1 037	1 037

Table 10. Comparison of sample and population frequencies for formal education level

Member state	Formal education level	Unweighted n	Weighted n	Trimmed weights n	Population frequencies
Denmark	Low	245	356	356	356
	Medium	475	562	562	562
	High	694	496	496	496
Spain	Low	210	409	409	409
	Medium	454	333	333	333
	High	578	499	499	499
France	Low	346	314	314	314
	Medium	561	688	688	688
	High	736	641	641	641
Latvia	Low	156	242	242	242
	Medium	711	815	815	815
	High	783	593	593	593

Member state	Formal education level	Unweighted n	Weighted n	Trimmed weights n	Population frequencies
Netherlands	Low	208	235	235	235
	Medium	430	430	430	430
	High	419	392	392	392
Poland	Low	137	146	146	146
	Medium	573	577	577	577
	High	439	426	426	426
Romania	Low	35	216	137	216
	Medium	382	614	642	614
	High	670	257	308	257
Slovenia	Low	122	294	294	294
	Medium	1 099	1 221	1 221	1 221
	High	1 117	823	823	823
Slovakia	Low	153	208	208	208
	Medium	920	980	980	980
	High	577	462	462	462
Finland	Low	285	434	434	434
	Medium	1 303	1 142	1 142	1 142
	High	991	1 002	1 002	1 002

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