mInimize coSts and mAximize Benefits in the transitionary European regional Labour markets

Deliverable Nº 3.2

Survey questionnaires

WP3: Data Lake creation and Data Collection on the uneven effects of JCD

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Abstract

This deliverable presents the development, structure, and implementation guidelines for two survey instruments designed to collect primary data on job creation and destruction (JCD), occupational change, and skill dynamics in the context of the green and digital transitions. The questionnaires target both sides of the labor market: individuals-workers who have experienced employment transitions, and employers whose companies have undergone personnel changes. Developed collaboratively and refined through piloting and stakeholder feedback, the instruments provide a coherent, comparable framework for cross-country data collection. They aim to fill existing information gaps by capturing micro-level perspectives on how technological and sustainability-driven transformations are reshaping work, occupations, and skill demands across Europe.

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Executive summary

This report presents the survey instruments developed to capture real-time evidence on job creation and destruction (JCD), occupational shifts, and evolving skill needs across selected European labor markets, particularly in the context of the Green and Digital Transitions. Designed as primary data collection tools, the questionnaires provide complementary perspectives from both workers (supply side) and employers (demand side).

The employees' questionnaire targets individuals who have experienced employment transitions over the past decade, including both employed and unemployed respondents. It tracks current and past job roles, skill sets, occupational classifications, and the perceived influence of green and digital transformations on their work trajectories. The employers' questionnaire, in turn, focuses on companies that have undergone personnel movements in the past 24 months, with dedicated sections on job creation, job elimination, recruitment strategies, and changes in skill demand linked to sectoral innovation and sustainability goals.

Both tools were developed collaboratively, refined through expert feedback during a co-creation workshop, and piloted in real-world settings. The report outlines the methodological rationale behind the instruments, including routing logic, sample design, and classification frameworks such as ISCO, ESCO and NACE. It also provides technical implementation guidelines to support effective field deployment.

By aligning questionnaire design with ISABEL's analytical priorities, the deliverable ensures the collection of high-quality micro-level primary data that will inform cross-country and inter-regional comparisons and policy-relevant insights into the transition-driven transformation of work. These instruments offer a replicable approach for capturing dynamic labor market change from the dual vantage points of individuals and organizations.

At the current stage of the project, secondary data collection and mapping activities are still ongoing in parallel. As a result, the formulation of specific research hypotheses remains preliminary. The current deliverable therefore focuses on presenting the data collection tools themselves, while the detailed analytical priorities will be outlined in Deliverable 4.1, once the full empirical landscape of the project is established.

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List Of Abbreviations

CAWI – Computer-Assisted Web Interviewing
CATI – Computer-Assisted Telephone Interviewing
ESCO - European Skills, Competences, Qualifications and Occupations
HR - Human Resources
ISCED - International Standard Classification of Education
ISCO - International Standard Classification of Occupations
ISABEL - mInimize coSts and mAximize Benefits in the transitionary European regional Labour markets (Project Acronym)
JCD - Job Creation and Destruction
NACE - Nomenclature statistique des Activités économiques dans la Communauté Européenne (Statistical Classification of Economic Activities in the EU)

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1. Introduction

As labor markets are reshaped by digital innovation, environmental transformation, and evolving work structures, the ability to monitor and understand Job Creation and Destruction (JCD) is increasingly important. These dynamics not only reflect structural economic change, but also redefine the occupational landscape and the skills needed to navigate it. Mapping these processes requires instruments capable of capturing job flows, transitions between employment statuses, and shifts in skill demand across sectors and roles.

Within the ISABEL project, two tailored primary data collection tools were developed to meet this need:

- A questionnaire targeting individuals on the supply side of the labor market (workers),
- A questionnaire addressed to employers representing the demand side.

Together, these instruments allow for a comprehensive, view of labor market transformation in the context of the green and digital transitions. They are designed to generate first-hand, comparable data across six partner countries (Denmark, Spain, Greece, Poland, Serbia and United Kingdom) supporting analysis of recent job changes, the evolution of occupational profiles, and the role of green and digital transitions in shaping emerging skill requirements.

This deliverable is predominantly composed of the two questionnaires in their final, field-ready versions. However, in order to support transparency, comparability, and replicability across national contexts, the document also includes key methodological background information. Together, they offer a practical guide for implementation teams and a technical reference for analysts and stakeholders using the data.

The structure of the deliverable is as follows:

Chapter 2 presents the employees' (supply-side) questionnaire, including a discussion of the targeted population, sampling model, and results of the pilot phase.

Chapter 3 introduces the employers' (demand-side) questionnaire, with parallel information on sampling and structure.

The conclusion provides not only a reflection on the questionnaire development process but also some practical guidelines for implementation.

By combining both instruments and the methodological guidance needed to apply them, this deliverable forms a core input into the ISABEL project's empirical phase, supporting cross-national data collection on the evolving nature of jobs and skills across Europe.

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2. Supply side of the labor market

This chapter presents the methodology, structure, and implementation of the primary data collection conducted on the supply side of the labor market, specifically through the employees' questionnaire. The chapter is structured in three parts: (1) the definition of the target population, sampling approach, and pre-test results; (2) the detailed design and structure of the questionnaire; (3) and a presentation of the questionnaire itself.

2.1 Targeted population, sampling method and pre-test results

Targeted Population

In the context of this study, the supply side of the labor market refers to individuals who offer their labor—either currently through active employment, or potentially, as jobseekers. This includes people with diverse employment experiences, backgrounds, and skillsets, who either hold a job or are actively seeking one.

The target population includes adults aged 18–64 who have working experience and have changed employment at least once during the past decade, regardless of their current employment status. This period was considered since the green and digital transitions have started to affect labor markets in the mid-2010s (García-García et al., 2020; Santos et al., 2023).

To confirm eligibility, a screening question is used at the beginning of the questionnaire. Individuals who have never left a job or changed employers are excluded. In addition, respondents must fall into one of two categories:

- Currently employed (either full-time or part-time), including:
  - Individuals employed under any form of legal contract (e.g., permanent, temporary, civil-law agreements);
  - Those who are self-employed, whether as freelancers, B2B contracts or sole traders.
- Currently unemployed but actively seeking employment.

The inclusion of unemployed individuals is deliberate and essential. It allows the study to capture the full spectrum of labor market experiences, including job loss, challenges and barriers to re-entry, and skill mismatches that often emerge during transitions (Santos et al., 2023). This also supports cross-sectional analysis of job change dynamics from both the perspective of employment continuity and employment interruption.

Conversely, individuals who are not currently in the labor force—such as retirees, students, or those who are permanently inactive and not seeking work—are excluded from the study. The aim is to focus on people with recent labor market activity and continued or intended participation in the workforce.

The questionnaire routes respondents according to their employment status, with distinct blocks tailored for employed and unemployed individuals. This ensures consistency across all cases, while adapting the content to the respondent's current status.

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Sampling Method and Composition

To ensure a comprehensive understanding of both employment stability and transitions, the sampling strategy targets a diverse cross-section of the working-age population. The survey aims to collect data from 800 individuals per country, divided into two key respondent groups:

700 employed individuals, working either full-time or part-time, regardless of employment form (e.g., standard contracts, temporary arrangements, or self-employment).

100 unemployed individuals who are actively seeking work.

The final sample will follow quota sampling principles to ensure adequate representation across critical demographic segments. Specifically:

Gender balance will be pursued with the aim of recruiting approximately 50% women and 50% men. However, the questionnaire also allows respondents to identify as "other" or choose not to disclose their gender. These options ensure inclusivity and prevent the exclusion of any respondent based on gender identity. As a result, while gender balance is a guiding principle, the final distribution may deviate slightly from the 50/50 target to fully respect individual responses.

Age representation will be evenly split between two cohorts: 18–40 years and 41–64 years.

This sampling logic has been chosen to balance demographic representativeness with analytical relevance. By reflecting key diversity dimensions in age and gender while focusing on employment status, the sampling strategy enables robust cross-sectional analysis of job creation, destruction, and skill dynamics in different population segments.

This approach is intended to ensure diversity and comparability across the respondent pool. By aiming for equal representation across gender and age cohorts, the sample reflects the structural diversity of the working-age population and enables examination of potential differences in labor market behavior and experiences. Including both younger and older adults allows the analysis to capture generational shifts in skills, mobility patterns, and responses to digital and green transitions. Similarly, ensuring the presence of both employed and unemployed individuals strengthens the analytical framework by reflecting the full spectrum of job transitions—from voluntary job changes to unemployment episodes and re-employment pathways.

The quota model will be implemented using CAWI survey software that supports real-time monitoring and balancing to ensure the targeted distribution is reached effectively.

The detailed information and evaluation of sampling will be presented in D4.1

Pre-test Results

A pilot study was conducted in August 2025 in Poland by a professional research company (Grupa BST Sp. z o.o.) to evaluate the clarity, length, logical consistency, and technical feasibility of the employees' questionnaire. Key findings and follow-up decisions include:

- Average completion time was 21 minutes and 40 seconds. Although this slightly exceeds the generally accepted CAWI threshold of 20 minutes, it was not deemed excessive. Employed respondents averaged 22'18", while unemployed respondents averaged 20'07".

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- The questionnaire logic and routing were generally functional. However, some confusion was noted regarding section applicability (e.g. who should answer the Job Change section). This has since been clarified in the CAWI implementation through routing rules and block instructions.
- The postal code question, although flagged by report authors as potentially unnecessary, was retained. Geographic representation is important for analyzing spatial labor market trends and disparities, and this data point is crucial for regional segmentation.
- Most recommended edits to response categories and question wording were adopted. In particular:
  - Clarified employment definitions to include civil-law contracts and B2B arrangements.
  - Revised filtering and routing logic for sections based on current employment status.
  - Updated ambiguous or overly subjective phrasings (e.g. “long period” of unemployment or difficulty finding work).
- Some proposed deletions (e.g. of detailed demographic items) were not adopted in order to retain analytical granularity across partner countries. For example, in question M3, suggestions were made to simplify and harmonize the answer categories across all language versions. However, authors decided to maintain the more detailed national version of the International Standard Classification of Education (ISCED) used in the Polish-language questionnaire. This was necessary to ensure national accuracy while preserving international comparability, as each participating country has its own standard mapping to ISCED categories.

From a technical perspective, the pilot confirmed the need for a CAWI platform with robust filtering and routing capabilities, such as LimeSurvey or CADAS, to ensure faithful digital implementation of the questionnaire’s logic and conditional paths.

A report of the pilot findings and recommendations is included in Annex 1.

2.2 Structure and design of the employees’ questionnaire

The employees’ questionnaire was designed as a modular and adaptive instrument, structured to efficiently collect information from individuals with diverse employment experience. Its structure consists of several thematic blocks: Screening Questions, Not Employed, Current Job, Job Change, Previous Job, and Demographic Section. The flow of the questionnaire is designed to adjust, based on the respondent's current employment status, which is determined early in the survey using a filter question. This design minimizes response burden while ensuring high relevance of the content presented to each individual. Most questions were set as mandatory, unless explicitly marked otherwise — particularly in cases involving routing, where certain questions were omitted for some respondents based on their previous answers. For sensitive demographic items (e.g., gender, age), the questions remained mandatory, but the option “I prefer not to answer” was included to ensure respondent comfort while preserving data structure integrity.

Respondent Pathways

After providing consent and confirming fulfilling eligibility criteria, respondents are asked about their current employment status. Based on this response, two distinct survey pathways are followed:

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- Not-employed respondents (i.e. unemployed and actively looking for work) are routed to:

1. Not Employed section – questions on unemployment duration, causes of job loss, perceived barriers to re-employment, and self-assessed skill levels.
2. Previous Job section – retrospective information about their last held job.
3. Demographic section – background and socio-demographic characteristics.

- Employed respondents (either full- or part-time) are routed to:

1. Current Job section – detailed information about their main current position.
2. Job Change section – questions on the transition from their previous to current job.
3. Previous Job section – capturing data for comparison with their current role.
4. Demographic section – as above.

This conditional routing ensures that each respondent is presented only with content relevant to their employment situation, while preserving comparability across common sections.

Section Overviews

Screening Questions
This initial block ensures the respondent meets the eligibility criteria and voluntarily consents to participation. Only individuals who have changed employment at least once in the last decade are invited to continue.

Not Employed Section
This block addresses individuals who are currently unemployed but have prior work experience and are actively seeking a job. It collects data on the duration of unemployment, reasons for job separation, barriers to re-entry into the labor market, and recent activities such as training or continued education. Of particular importance is question U6, which asks respondents to self-assess their proficiency across 13 skill groups. The latter were developed as part of the ISABEL project, drawing on the ESCO (European Skills, Competences, Qualifications and Occupations) classification system. The result is a harmonized and policy-relevant typology of skills — including digital and technology skills, STEM, management, and interpersonal skills — that facilitates comparative analysis across respondent groups.

Current Job Section
This section is tailored for currently employed respondents and focuses on their main job or source of income. It begins with a question on the match between individual skills and job requirements, followed by a detailed skill self-assessment (CJ2) using the same skill typology as in U6. This consistency enables meaningful comparisons between the skills of employed and unemployed individuals.

Respondents are also asked about their occupational role through question CJ3, which follows a two-step structure based on the ISCO-08 (International Standard Classification of Occupations 2008) occupation classification. First, they select a broad 1-digit occupational category (e.g., manager, professional, technician), then proceed to a follow-up with more detailed 2-digit level options. This approach allows for precise classification while keeping the survey user-friendly.

Similarly, question CJ7 identifies the economic sector of the respondent's employer using the Statistical Classification of Economic Activities in the EU (NACE rev.2 update

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1). Again, a two-level selection process is used: respondents first choose a broad sector, then specify more granular categories, enabling classification at the 2-digit level in line with statistical standards.

To support accurate self-coding to both ISCO and NACE classifications, routing has been simplified to these two steps, balancing the need for detailed data with respondent usability. While automated tools such as CASCOT were considered to facilitate occupational coding, their limited language availability (only covering English and Spanish) rendered them unsuitable for a multilingual, cross-country study such as ISABEL.

Additional items in this section collect data on contract type, employer type, workplace location, and sectoral activity, providing a rich snapshot of current employment conditions.

Job Change Section

This block is addressed to employed respondents only and focuses on the respondent's most recent job change, covering both objective reasons (e.g. end of contract, voluntary resignation, company closure) and subjective perceptions, such as skills mismatch, or the influence of broader transitions. Several items specifically explore the perceived impact of the green and digital transitions, aligning with the overall goals of the ISABEL project. Respondents also reflect on challenges faced during job search, including structural and personal factors.

Previous Job Section

This section is addressed to all respondents, regardless of their current status, and replicates key elements from the Current Job section. It collects detailed retrospective data on the respondent's last job, including occupation (PJ1) and economic sector (PJ5), which also follow the ISCO and NACE classification schemes, using the same two-step format to achieve 2-digit statistical precision. Other questions explore employment contract type, organization type, working conditions, and job satisfaction, providing a baseline for analyzing employment trajectories and transitions over time.

Demographic Section

The final block gathers socio-demographic information, including age, gender, education level and field of study, disability status, and migration/refugee background. Migrants are asked to indicate their country of birth, and all respondents are asked for the postal code of residence, enabling spatial segmentation and regional labor market analyses.

The development of the employees' questionnaire was informed by a broad review of well-established international survey instruments. While the tool is primarily original in structure and tailored to the objectives of the ISABEL project, specific questions or formulations were either directly adapted or inspired by previously validated sources. For example, question CJ1, which asks respondents to self-assess their skills relative to their current job requirements, draws heavily from CEDEFOP's European Skills and Jobs Survey (Q20b) (Cedefop, 2015). Similarly, question M4, which collects information about the field of education, mirrors the approach used in the PIAAC (Programme for the International Assessment of Adult Competencies) questionnaire developed by the OECD (OECD, 2013), relying on ISCED classification categories and follow-up logic to reduce respondent burden. This method of selective adaptation allowed us to build on proven measurement tools while customizing the survey to the unique scope of JCD and skill transitions under green and digital change. A full comparison with source tools is available upon request and the development process remains transparent in

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acknowledging all intellectual influences.

Unlike the Labour Force Survey (LFS), which provides broad macro-level indicators, the ISABEL questionnaire seeks to collect transition-sensitive and retrospective data, including information on job creation/destruction, occupation and skill shifts, and individual decision-making processes, which are not captured in standard LFS datasets (Eurostat 2022).

2.3 Employees' questionnaire

Dear Participant,

This questionnaire is conducted by [Company Name] on behalf of [University Name] as part of the European project ***"mInimize coSts and mAximize Benefits in the transitionary European regional Labour markets"*** (ISABEL).

The aim of this study is to understand how jobs are changing across Europe, especially in light of the green and digital transitions. We are focusing on people who have changed their job at least once in the past 10 years or become unemployed.

Your responses are anonymous and will be used only for aggregated (statistical) analysis. You were selected as part of a random sample, and your participation is entirely voluntary — you may stop at any time.

Most questions require only one answer, unless instructions say otherwise. Please answer as honestly as possible, even if some questions require reflection — your input is crucial to obtaining meaningful results.

Key Definitions

- **Green transition:** Refers to the shift toward more environmentally sustainable business models and practices. This includes reducing greenhouse gas emissions, improving energy efficiency, adopting circular economy principles, transitioning to renewable energy sources, and complying with climate-related regulations or targets (e.g. net zero).
- **Digital transition:** Refers to the adoption and integration of digital technologies across business operations. This includes greater use of automation, artificial intelligence (AI), data analytics, digital platforms, cloud computing, and transforming products, services, and internal processes using digital tools.
- **Job creation**: A position that was newly established — you were the first person hired into that role in the specific workplace, not replacing anyone.
- **Job elimination**: After you left your previous position, no one was hired to replace you — the role was likely discontinued.

SCREENING QUESTIONS

SQ1	**By continuing with this questionnaire, you confirm that you agree to participate voluntarily and that you understand the information you provide will be used for research purposes only. Your responses will be kept confidential and anonymous. You may withdraw at any time without any consequences.** **Do you consent to participate in this survey?**
a	Yes
b	No →*Thank you for your time. This concludes the survey*

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SQ2	ave you changed your employment position or lost your job at least once in the past 10 years?
a	Yes
b	No →*Thank you for your time. This concludes the survey*

Questions

Q1	**Are you currently employed?** *By employed we understand paid performance of professional duties based on a legal contract, civil-law contract and self-employment (B2B) with no employees.*
Q1_1	Yes, full time →*go to CJ1*
Q1_2	Yes, part time →*go to CJ1*
Q1_3	No, but I am looking for a job →*go to U1*
Q1_4	No, and I am not looking for a job →*end of survey*

NOT EMPLOYED

Important - questions are only addressed to people who have work experience (have worked in at least one job), are currently not employed but are looking for work.

U1 if Q1=3	**How long have you been unemployed?**
U1_1	Less than one month
U1_2	More than one month but less than six months
U1_3	More than six months but less than one year
U1_4	More than one year but less than two years
U1_5	More than two years

U2	**Please rate your most recent job on the following items:** *Please evaluate all of the factors listed below – do not skip any of them*					
		Strongly disagree	*Disagree*	*Neither agree, nor disagree*	*Agree*	*Strongly agree*
U2_1	I was satisfied with my job overall					
U2_2	I had the opportunity to develop my skills					
U2_3	I was satisfied with my salary					
U2_4	I was satisfied with my working time					
U2_5	My job offered stable working conditions					
U2_6	Modern technological tools were used in my workplace					

U3	**Why did you lose your last job?** *Please select the one option that best describes your situation*
U3_1	My previous workplace (company/branch) was closed
U3_2	My contract ended, was not renewed and no one was hired to replace me
U3_3	I was fired and no one was hired to replace me

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U3_4	I resigned and no one was hired to replace me
U3_5	My contract ended, was not renewed and someone was hired to replace me
U3_6	I was fired and someone was hired to replace me
U3_7	I resigned and someone was hired to replace me
U3_8	Other reasons

U4	**Why do you think you are currently not employed?** *Please tick all that apply to you*
U4_1	I have been inactive from the labor market for too long
U4_2	Being a foreigner
U4_3	I do not have the financial resources to train/retrain
U4_4	My gender
U4_5	Lack of skills
U4_6	Lack of professional experience
U4_7	Lack of suitable workplaces and job offers
U4_8	My age
U4_9	Poor health/disability
U4_10	My field of study is not highly demanded in the labor market
U4_11	Changes in the labor market related to digitalization and new technologies
U4_12	Changes in the labor market related to environmental regulations and the green technologies
U4_13	Other

U5	**Have you undertaken any of the following activities in the last 4 weeks?** *Please tick all that apply to you*		
		YES	***NO***
U5_1	Worked for pay		
U5_2	Participated in training		
U5_3	Continued your education (school, university)		

U6	**To what extent do you possess the following skills?** Please rate the following factors (by placing an "x" in the appropriate boxes). *1 means "do not possess at all", 2 - "possess to a small extent",* *3 - "possess to a moderate extent", 4 - "possess to a high extent", 5 - "possess to a very high extent"*					
	Skills	***1***	***2***	***3***	***4***	***5***
U6_1	Agriculture, forestry, fisheries and veterinary Skills					
U6_2	Arts and Humanities Skills					
U6_3	Care & Social Services Skills					
U6_4	Communication & Interpersonal Skills					
U6_5	Digital & Technology Skills					
U6_6	Educational Skills					
U6_7	Management & Business Skills					
U6_8	Personal Development Skills					
U6_9	Physical & Manual Operations Skills					
U6_10	Research & Analysis Skills					
U6_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills					
U6_12	Service Operations and Safety Skills					
U6_13	Social sciences and journalism Skills					

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U7	Did the green and digital transition change the tasks that you had to undertake in your previous job?		
		YES	*NO*
U7_1	The green transition changed the tasks that I had to undertake in my previous job		
U7_2	The digital transition changed the tasks that I had to undertake in my previous job		

Go to Previous Job section

CURRENT JOB

We want to ask you several questions regarding your current job. Should you have more than one job at the moment please answer the following questions referring to your main job/position (should you have difficulty to point which is your main job, take the one that generates most of your income).

This block of questions is addressed to employed respondents only

CJ1 (if Q1 = 1 or 2)	**Overall, how would you best describe your skills in relation to what is required in your current job?** *0 - means My skills are a lot lower than required, 10 means - My skills are a lot higher than required.*
	evaluate on scale

CJ2	**To what extent do you possess the following skills?** Please rate the following factors (by placing an "x" in the appropriate boxes). *1 means "do not possess at all", 2 - "possess to a small extent",* *3 - "possess to a moderate extent", 4 - "possess to a high extent", 5 - "possess to a very high extent"*					
	Competences	***1***	***2***	***3***	***4***	***5***
CJ2_1	Agriculture, forestry, fisheries and veterinary Skills					
CJ2_2	Arts and Humanities Skills					
CJ2_3	Care & Social Services Skills					
CJ2_4	Communication & Interpersonal Skills					
CJ2_5	Digital & Technology Skills					
CJ2_6	Educational Skills					
CJ2_7	Management & Business Skills					
CJ2_8	Personal Development Skills					
CJ2_9	Physical & Manual Operations Skills					
CJ2_10	Research & Analysis Skills					
CJ2_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills					
CJ2_12	Service Operations and Safety Skills					
CJ2_13	Social sciences and journalism Skills					

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CJ3	**Which of the following occupations best describes your current job?** *Choose 1 If you are unsure, please choose the category that best describes your work. You will be shown more specific options.*
CJ3_1	A manager
CJ3_2	A professional
CJ3_3	A technician or associate professional
CJ3_4	Clerical Support
CJ3_5	A Sales, Customer or Personal Service Worker
CJ3_6	A Skilled Agricultural, Forestry and Fishery Worker
CJ3_7	Building, Crafts or a Related Trade Person
CJ3_8	Plant and Machine Operator and Assembler
CJ3_9	Elementary occupations
CJ3_10	Employed in a military capacity by the Armed Forces
CJ3_11	Other *→go to CJ4*

If CJ3= CJ3_1	**Which of the following best describes your current job?**
CJ3_1_1	A Chief Executive, Senior Official or Legislator
CJ3_1_2	An Administrative or Commercial Manager
CJ3_1_3	A Production or Specialized Services Manager
CJ3_1_4	A Hospitality, Retail or Other Services Manager
CJ3_1_5	Other

If CJ3= CJ3_2	**Which of the following best describes your current job?**
CJ3_2_1	A Science and Engineering Professional
CJ3_2_2	A Health Professional
CJ3_2_3	A Teaching Professional
CJ3_2_4	A Business and Administration Professional
CJ3_2_5	An Information and Communications Technology Professional
CJ3_2_6	Legal, Social and Cultural Professional
CJ3_2_7	Other

If CJ3= CJ3_3	**Which of the following best describes your current job?**
CJ3_3_1	Science and Engineering Associate Professional
CJ3_3_2	Health Associate Professional
CJ3_3_3	Business and Administration Associate Professional
CJ3_3_4	Legal, Social and Cultural Associate Professional
CJ3_3_5	Information and Communications Technology Technician
CJ3_3_6	Other

If CJ3= CJ3_4	**Which of the following best describes your current job?**
CJ3_4_1	A General or Keyboard Clerk
CJ3_4_2	A Customer Services Clerk
CJ3_4_3	A Numerical and Material Recording Clerk
CJ3_4_4	Another Clerical Support Worker
CJ3_4_5	Other

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If CJ3= CJ3_5	Which of the following best describes your current job?
CJ3_5_1	A Personal Services Worker
CJ3_5_2	A Sales Worker
CJ3_5_3	A Personal Care Worker
CJ3_5_4	A Protective Service Worker
CJ3_5_5	Other

If CJ3= CJ3_6	Which of the following best describes your current job?
CJ3_6_1	A Skilled Agricultural Worker
CJ3_6_2	A Skilled Forestry, Fishery and Hunting Worker
CJ3_6_3	A Subsistence Farmer, Fisher, Hunter
CJ3_6_4	Other

if CJ3= CJ3_7	Which of the following best describes your current job?
CJ3_7_1	Building and Related Trades Worker
CJ3_7_2	A Metal, Machinery and Related Trades Worker
CJ3_7_3	A Handicraft and Printing Worker
CJ3_7_4	An Electrical and Electronic Trades Worker
CJ3_7_5	A Food Processing, Woodworking, Garment and Other Craft and Related Trades Worker
CJ3_7_6	Other

if CJ3= CJ3_8	Which of the following best describes your current job?
CJ3_8_1	A Stationary Plant or Machine Operator
CJ3_8_2	An Assembler
CJ3_8_3	A Driver or Mobile Plant Operator
CJ3_8_4	Other

If CJ3= CJ3_9	Which of the following best describes your current job?
CJ3_9_1	A Cleaner or Helper
CJ3_9_2	An Agricultural, Forestry and Fishery Laborer
CJ3_9_3	A Laborer in Mining, Construction, Manufacturing or Transport
CJ3_9_4	A Food Preparation Assistant
CJ3_9_5	A Street and other Sales or Services Worker
CJ3_9_6	Refuse Worker and Other Elementary Worker
CJ3_9_7	Other

if CJ3= CJ3_10	Which of the following best describes your current job?
CJ3_10_1	A Commissioned Armed Forces Officer
CJ3_10_2	A Non-Commissioned Armed Forces Officer
CJ3_10_3	An Armed Forces Occupations, Other Rank
CJ3_10_4	Other

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CJ4	What kind of employment contract do you have in your current job?
CJ4_1	An indefinite/permanent contract
CJ4_2	A fixed term/temporary contract
CJ4_3	A temporary employment agency contract
CJ4_4	Paid apprentice/internship
CJ4_5	Self-employed (B2B)
CJ4_6	Other

CJ5	**What is the postal code of your workplace?** *Please provide the postal code of the actual location where you perform your work tasks – for example, the facility, plant, store, office, or site where you are physically based. Do not enter the postal code of the company's headquarters or legal/registered address if it is different.*
CJ5_1	postal code-digit slot
CJ5_2	work remotely/home working 100%

CJ6	**Which of the following best describes the type of organization you currently work for?** *If self-employed select answer CJ6_1*
CJ6_1	Privately-owned organization (e.g. company, sole proprietorship, partnership)
CJ6_2	State owned company
CJ6_3	Collective or cooperative organization
CJ6_4	Public sector organization (e.g. national, regional, or local government body, public university, police)
CJ6_5	Not-for-profit trust, charity or non-Governmental organization
CJ6_6	Other type of organization

CJ7	**What is the main activity carried out by your workplace or company?** *Choose 1. If you are unsure, please choose the category that best describes your work. You will be shown more specific options.*
CJ7_1	Agriculture, forestry and fishing
CJ7_2	Mining and quarrying
CJ7_3	Manufacturing
CJ7_4	Electricity, gas, steam and air conditioning supply *→go to CJ8*
CJ7_5	Water supply; sewerage, waste management and remediation activities
CJ7_6	Construction
CJ7_7	Wholesale and retail trade
CJ7_8	Transportation and storage
CJ7_9	Accommodation and food service activities
CJ7_10	Publishing, broadcasting, and content production and distribution activities
CJ7_11	Telecommunication, computer programming, consulting, computing infrastructure and other information service activities
CJ7_12	Financial and insurance activities
CJ7_13	Real estate activities *→go to CJ8*
CJ7_14	Professional, scientific and technical activities
CJ7_15	Administrative and support service activities
CJ7_16	Public administration and defense; compulsory social security *→go to CJ8*
CJ7_17	Education *→go to CJ8*
CJ7_18	Human health and social work activities
CJ7_19	Arts, sports and recreation
CJ7_20	Other service activities

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CJ7_21	Activities of households as employers and undifferentiated goods - and services -producing activities for own use
CJ7_22	Activities of extraterritorial organizations and bodies →*go to CJ8*
CJ7_23	Other →*go to CJ8*

If CJ7= CJ7_1	**Please specify in more detail the main activity carried out by your workplace**
CJ7_1_1	Crop and animal production, hunting and related service activities
CJ7_1_2	Forestry and logging
CJ7_1_3	Fishing and aquaculture
CJ7_1_4	Other

If CJ7= CJ7_2	**Please specify in more detail the main activity carried out by your workplace**
CJ7_2_1	Mining of coal and lignite
CJ7_2_2	Extraction of crude petroleum and natural gas
CJ7_2_3	Mining of metal ores
CJ7_2_4	Other mining and quarrying
CJ7_2_5	Mining support service activities
CJ7_2_6	Other

if CJ7= CJ7_3	**Please specify in more detail the main activity carried out by your workplace**
CJ7_3_1	Manufacture of food products
CJ7_3_2	Manufacture of beverages
CJ7_3_3	Manufacture of tobacco products
CJ7_3_4	Manufacture of textiles
CJ7_3_5	Manufacture of wearing apparel
CJ7_3_6	Manufacture of leather and related products of other materials
CJ7_3_7	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
CJ7_3_8	Manufacture of paper and paper products
CJ7_3_9	Printing and reproduction of recorded media
CJ7_3_10	Manufacture of coke and refined petroleum products
CJ7_3_11	Manufacture of chemicals and chemical products
CJ7_3_12	Manufacture of basic pharmaceutical products and pharmaceutical preparations
CJ7_3_13	Manufacture of rubber and plastic products
CJ7_3_14	Manufacture of other non-metallic mineral products
CJ7_3_15	Manufacture of basic metals
CJ7_3_16	Manufacture of fabricated metal products, except machinery and equipment
CJ7_3_17	Manufacture of computer, electronic and optical products
CJ7_3_18	Manufacture of electrical equipment
CJ7_3_19	Manufacture of machinery and equipment n.e.c.
CJ7_3_20	Manufacture of motor vehicles, trailers and semi-trailers
CJ7_3_21	Manufacture of other transport equipment

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if CJ7= CJ7_3	Please specify in more detail the main activity carried out by your workplace
CJ7_3_22	Manufacture of furniture
CJ7_3_23	Other manufacturing
CJ7_3_24	Repair, maintenance and installation of machinery and equipment
CJ7_3_25	Other

if CJ7= CJ7_5	Please specify in more detail the main activity carried out by your workplace
CJ7_5_1	Water collection, treatment and supply
CJ7_5_2	Sewerage
CJ7_5_3	Waste collection, recovery and disposal activities
CJ7_5_4	Remediation activities and other waste management services
CJ7_5_5	Other

If CJ7= CJ7_6	Please specify in more detail the main activity carried out by your workplace
CJ7_6_1	Construction of residential and non-residential buildings
CJ7_6_2	Civil engineering
CJ7_6_3	Specialized construction activities
CJ7_6_4	Other

If CJ7= CJ7_7	Please specify in more detail the main activity carried out by your workplace
CJ7_7_1	Wholesale trade
CJ7_7_2	Retail trade
CJ7_7_3	Other

If CJ7= CJ7_8	Please specify in more detail the main activity carried out by your workplace
CJ7_8_1	Land transport and transport via pipelines
CJ7_8_2	Water transport
CJ7_8_3	Air transport
CJ7_8_4	Warehousing, storage and support activities for transportation
CJ7_8_5	Postal and courier activities
CJ7_8_6	Other

If CJ7= CJ7_9	Please specify in more detail the main activity carried out by your workplace
CJ7_9_1	Accommodation
CJ7_9_2	Food and beverage service activities
CJ7_9_3	Other

If CJ7= CJ7_10	Please specify in more detail the main activity carried out by your workplace
CJ7_10_1	Publishing activities

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If CJ7= CJ7_10	Please specify in more detail the main activity carried out by your workplace
CJ7_10_2	Motion picture, video and television programme production, sound recording and music publishing activities
CJ7_10_3	Programming, broadcasting, news agency and other content distribution activities
CJ7_10_4	Other

If CJ7= CJ7_11	Please specify in more detail the main activity carried out by your workplace
CJ7_11_1	Telecommunication
CJ7_11_2	Computer programming, consultancy and related activities
CJ7_11_3	Computing infrastructure, data processing, hosting and other information service activities
CJ7_11_4	Other

If CJ7= CJ7_12	Please specify in more detail the main activity carried out by your workplace
CJ7_12_1	Financial service activities, except insurance and pension funding
CJ7_12_2	Insurance, reinsurance and pension funding, except compulsory social security
CJ7_12_3	Activities auxiliary to financial services and insurance activities
CJ7_12_4	Other

If CJ7= CJ7_14	Please specify in more detail the main activity carried out by your workplace
CJ7_14_1	Legal and accounting activities
CJ7_14_2	Activities of head offices and management consultancy
CJ7_14_3	Architectural and engineering activities; technical testing and analysis
CJ7_14_4	Scientific research and development
CJ7_14_5	Activities of advertising, market research and public relations
CJ7_14_6	Other professional, scientific and technical activities
CJ7_14_7	Veterinary activities
CJ7_14_8	Other

if CJ7= CJ7_15	Please specify in more detail the main activity carried out by your workplace
CJ7_15_1	Rental and leasing activities
CJ7_15_2	Employment activities
CJ7_15_3	Travel agency, tour operator reservation service and related activities
CJ7_15_4	Investigation and security activities
CJ7_15_5	Services to buildings and landscape activities
CJ7_15_6	Office administrative, office support and other business support activities
CJ7_15_7	Other

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If CJ7= CJ7_18	Please specify in more detail the main activity carried out by your workplace
CJ7_18_1	Human health activities
CJ7_18_2	Residential care activities
CJ7_18_3	Social work activities without accommodation
CJ7_18_4	Other

If CJ7= CJ7_19	Please specify in more detail the main activity carried out by your workplace
CJ7_19_1	Arts creation and performing arts activities
CJ7_19_2	Libraries, archives, museums and other cultural activities
CJ7_19_3	Gambling and betting activities
CJ7_19_4	Sports activities and amusement and recreation activities
CJ7_19_5	Other

If CJ7= CJ7_20	Please specify in more detail the main activity carried out by your workplace
CJ7_20_1	Activities of membership organizations
CJ7_20_2	Repair and maintenance of computers, personal and household goods, and motor vehicles and motorcycles
CJ7_20_3	Personal service activities
CJ7_20_4	Other

If CJ7= CJ7_21	Please specify in more detail the main activity carried out by your workplace
CJ7_21_1	Activities of households as employers of domestic personnel
CJ7_21_2	Undifferentiated goods-and services-producing activities of private households for own use
CJ7_21_3	Other

CJ8	Has the green and digital transition changed the tasks - what you do at the job - that you have to undertake in your current job?		
		YES	*NO*
CJ8_1	The green transition has changed the tasks that I have to undertake in my current job		
CJ8_2	The digital transition has changed the tasks that I have to undertake in my current job		

CJ9	Thinking about your employer as a whole — how many people are employed by your company or organization in total (in [country])? Please include all employees across all branches, units, and locations in [country], not just your own workplace. If you are not sure of the exact number, please provide your best estimate.
CJ9_1	0-9
CJ9_2	10-49
CJ9_3	50-249
CJ9_4	250 and more
CJ9_5	Don't know

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CJ10	In your job, do you have any responsibility for supervising the work of other employees? Supervising is understood as both monitoring and being responsible for the work of others	
CJ10_1	Yes, this is my main work task	
CJ10_2	Yes, this is one of my work tasks	
CJ10_3	No	

CJ11	Have you been required to upgrade your skills - how you do your job - in the last two years?	
	competences	
CJ11_1	Yes, because of digital transition	
CJ11_2	Yes, because of green transition	
CJ11_3	Yes, because of other reasons	
CJ11_4	No	

CJ12	Please rate your current work on the following items: *Please evaluate all of the factors listed below – do not skip any of them*					
		Strongly disagree	*Disagree*	*Neither agree, nor disagree*	*Agree*	*Strongly agree*
CJ12_1	I am satisfied with my job overall					
CJ12_2	I have the opportunity to develop my skills					
CJ12_3	I am satisfied with my salary					
CJ12_4	I am satisfied with my working time					
CJ12_5	My job offers stable working conditions					
CJ12_6	Modern technological tools are used in my workplace					

JOB CHANGE

Considering the change between your previous and current job as a most recent job change, we would like to ask you a few questions referring to this change.

This block of questions is addressed to employed respondents only

JC1	What was the main reason for your most recent job change? *Please select the one option that best describes your situation*
JC1_1	My previous workplace (company/branch) was closed
JC1_2	My contract ended, was not renewed and no one was hired to replace me
JC1_3	I was fired and no one was hired to replace me
JC1_4	I resigned and no one was hired to replace me
JC1_5	My contract ended, was not renewed and someone was hired to replace me
JC1_6	I was fired and someone was hired to replace me
JC1_7	I resigned and someone was hired to replace me
JC1_8	Other reasons

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JC2	**People change jobs for many different reasons. Thinking about your most recent job change, to what extent do you agree with the following statements as possible contributing factors?** *Please indicate how much you agree or disagree with each reason related to skills or broader changes in the labor market*					
	Dimensions to evaluate	***Strongly disagree***	***Disagree***	***Neither agree nor disagree***	***Agree***	***Strongly agree***
JC2_1	My skills did not fully match the requirements of the job					
JC 2_2	Changes related to the green transition (e.g. environmental policies, sustainability goals) contributed to my job change					
JC 2_3	Changes related to the digital transition (e.g. new technologies, automation, digital tools) contributed to my job change					

JC3	**In your opinion, what were the main challenges in finding new job?** *Please select all relevant*
JC3_1	I was inactive from the labor market for too long
JC3_2	Being a foreigner
JC3_3	I did not have the financial resources to train/retrain
JC3_4	My gender
JC3_5	Lack of skills
JC3_6	Lack of professional experience
JC3_7	Lack of suitable workplaces and job offers
JC3_8	My age
JC3_9	Poor health/disability
JC3_10	My field of study was not highly demanded in the labor market
JC3_11	Changes in the labor market related to digitalization and new technologies.
JC3_12	Changes in the labor market related to environmental regulations and green technologies.
JC3_13	Other
JC3_14	It wasn't challenging for me to find a new job

PREVIOUS JOB

We would like to ask you a few questions about your previous job. If you are currently unemployed, please answer with reference to your most recent job.

This block of questions is addressed to all respondents

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PJ1	**Which of the following describes best your previous job?** *Choose 1. If you are unsure, please choose the category that best describes your work. You will be shown more specific options.*
PJ1_1	A manager
PJ1_2	A professional
PJ1_3	A technician or associate professional
PJ1_4	Clerical Support
PJ1_5	A Sales, Customer or Personal Service Worker
PJ1_6	A Skilled Agricultural, Forestry and Fishery Worker
PJ1_7	Building, Crafts or a Related Trade Person
PJ1_8	Plant and Machine Operator and Assembler
PJ1_9	Elementary occupations
PJ1_10	Employed in a military capacity by the Armed Forces
PJ1_11	Other *→go to PJ2*

If PJ1= PJ1_1	**Which of the following describes best your previous job?**
PJ1_1_1	A Chief Executive, Senior Official or Legislator
PJ1_1_2	An Administrative or Commercial Manager
PJ1_1_3	A Production or Specialized Services Manager
PJ1_1_4	A Hospitality, Retail or Other Services Manager
PJ1_1_5	Other

If PJ1= PJ1_2	**Which of the following describes best your previous job?**
PJ1_2_1	Science and Engineering Professional
PJ1_2_2	Health Professional
PJ1_2_3	Teaching Professional
PJ1_2_4	Business and Administration Professional
PJ1_2_5	Information and Communications Technology Professional
PJ1_2_6	Legal, Social and Cultural Professional
PJ1_2_7	Other

If PJ1= PJ1_3	**Which of the following describes best your previous job?**
PJ1_3_1	Science and Engineering Associate Professional
PJ1_3_2	Health Associate Professional
PJ1_3_3	Business and Administration Associate Professional
PJ1_3_4	Legal, Social and Cultural Associate Professional
PJ1_3_5	Information and Communications Technology Technician
PJ1_3_6	Other

If PJ1= PJ1_4	**Which of the following describes best your previous job?**
PJ1_4_1	A General or Keyboard Clerk
PJ1_4_2	A Customer Services Clerk
PJ1_4_3	A Numerical and Material Recording Clerk
PJ1_4_4	Another Clerical Support Worker
PJ1_4_5	Other

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If PJ1= PJ1_5	Which of the following describes best your previous job?
PJ1_5_1	A Personal Services Worker
PJ1_5_2	A Sales Worker
PJ1_5_3	A Personal Care Worker
PJ1_5_4	A Protective Service Worker
PJ1_5_5	Other

If PJ1= PJ1_6	Which of the following describes best your previous job?
PJ1_6_1	A Skilled Agricultural Worker
PJ1_6_2	A Skilled Forestry, Fishery and Hunting Worker
PJ1_6_3	A Subsistence Farmer, Fisher, Hunter
PJ1_6_4	Other

If PJ1= PJ1_7	Which of the following describes best your previous job?
PJ1_7_1	Building and Related Trades Worker
PJ1_7_2	A Metal, Machinery and Related Trades Worker
PJ1_7_3	A Handicraft and Printing Worker
PJ1_7_4	An Electrical and Electronic Trades Worker
PJ1_7_5	A Food Processing, Woodworking, Garment and Other Craft and Related Trades Worker
PJ1_7_6	Other

if PJ1= PJ1_8	Which of the following describes best your previous job?
PJ1_8_1	A Stationary Plant or Machine Operator
PJ1_8_2	An Assembler
PJ1_8_3	A Drivers or Mobile Plant Operator
PJ1_8_4	Other

if PJ1= PJ1_9	Which of the following describes best your previous job?
PJ1_9_1	A Cleaner or Helper
PJ1_9_2	An Agricultural, Forestry and Fishery Laborer
PJ1_9_3	A Laborer in Mining, Construction, Manufacturing or Transport
PJ1_9_4	A Food Preparation Assistant
PJ1_9_5	A Street and other Sales or Services Worker
PJ1_9_6	Refuse Worker and Other Elementary Worker
PJ1_9_7	Other

if PJ1= PJ1_10	Which of the following describes best your previous job?
PJ1_10_1	A Commissioned Armed Forces Officer
PJ1_10_2	A Non-Commissioned Armed Forces Officer
PJ1_10_3	An Armed Forces Occupations, Other Rank
PJ1_10_4	Other

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PJ2	What kind of employment contract, if any, did you have in your previous job?
PJ2_1	An indefinite/permanent contract
PJ2_2	A fixed term/temporary contract
PJ2_3	A temporary employment agency contract
PJ2_4	I did not have a formal contract
PJ2_5	Self-employed (B2B)
PJ2_6	Other
PJ2_7	Don't know

PJ3	What was the postal code of your previous workplace? *Please provide the postal code of the actual location where you performed your work tasks – for example, the facility, plant, store, office, or site where you were physically based. Do not enter the postal code of the company's headquarters or legal/registered address if it is different*
PJ3_1	Postal code-digit slot
PJ3_2	Work remotely/home working 100%
PJ3_3	Don't know

PJ4	Which of the following best describes the type of organization you previously worked for? *If you were self-employed select answer PJ4_1*
PJ4_1	Privately-owned organization (e.g. company, sole proprietorship, partnership)
PJ4_2	State owned company
PJ4_3	Collective or cooperative organization
PJ4_4	Public sector organization (e.g. national, regional, or local government body, public university, police)
PJ4_5	Not-for-profit trust, charity or non-Governmental organization
PJ4_6	Other type of organization

PJ5	What was the main activity carried out at your previous workplace? *Choose 1. If you are unsure, please choose the category that best describes your work. You will be shown more specific options.*
PJ5_1	Agriculture, forestry and fishing
PJ5_2	Mining and quarrying
PJ5_3	Manufacturing
PJ5_4	Electricity, gas, steam and air conditioning supply →*go to PJ6*
PJ5_5	Water supply; sewerage, waste management and remediation activities
PJ5_6	Construction
PJ5_7	Wholesale and retail trade; repair of motor vehicles and motorcycles
PJ5_8	Transportation and storage
PJ5_9	Accommodation and food service activities
PJ5_10	Publishing, broadcasting, and content production and distribution activities
PJ5_11	Telecommunication, computer programming, consulting, computing infrastructure and other information service activities
PJ5_12	Financial and insurance activities
PJ5_13	Real estate activities →*go to PJ6*
PJ5_14	Professional, scientific and technical activities
PJ5_15	Administrative and support service activities
PJ5_16	Public administration and defense; compulsory social security →*go to PJ6*
PJ5_17	Education →*go to PJ6*

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PJ5_18	Human health and social work activities
PJ5_19	Arts, sports and recreation
PJ5_20	Other service activities
PJ5_21	Activities of households as employers and undifferentiated goods - and services -producing activities for own use
PJ5_22	Activities of extraterritorial organizations and bodies *→go to PJ6*
PJ5_23	Other *→go to PJ6*

If PJ5= PJ5_1	**Please specify in more detail the main activity carried out by your previous workplace**
PJ5_1_1	Crop and animal production, hunting and related service activities
PJ5_1_2	Forestry and logging
PJ5_1_3	Fishing and aquaculture
PJ5_1_4	Other

If PJ5= PJ5_2	**Please specify in more detail the main activity carried out by your previous workplace**
PJ5_2_1	Mining of coal and lignite
PJ5_2_2	Extraction of crude petroleum and natural gas
PJ5_2_3	Mining of metal ores
PJ5_2_4	Other mining and quarrying
PJ5_2_5	Mining support service activities
PJ5_2_6	Other

If PJ5= PJ5_3	**Please specify in more detail the main activity carried out by your previous workplace**
PJ5_3_1	Manufacture of food products
PJ5_3_2	Manufacture of beverages
PJ5_3_3	Manufacture of tobacco products
PJ5_3_4	Manufacture of textiles
PJ5_3_5	Manufacture of wearing apparel
PJ5_3_6	Manufacture of leather and related products of other materials
PJ5_3_7	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
PJ5_3_8	Manufacture of paper and paper products
PJ5_3_9	Printing and reproduction of recorded media
PJ5_3_10	Manufacture of coke and refined petroleum products
PJ5_3_11	Manufacture of chemicals and chemical products
PJ5_3_12	Manufacture of basic pharmaceutical products and pharmaceutical preparations
PJ5_3_13	Manufacture of rubber and plastic products
PJ5_3_14	Manufacture of other non-metallic mineral products
PJ5_3_15	Manufacture of basic metals
PJ5_3_16	Manufacture of fabricated metal products, except machinery and equipment
PJ5_3_17	Manufacture of computer, electronic and optical products
PJ5_3_18	Manufacture of electrical equipment
PJ5_3_19	Manufacture of machinery and equipment n.e.c.

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If PJ5= PJ5_3	Please specify in more detail the main activity carried out by your previous workplace
PJ5_3_20	Manufacture of motor vehicles, trailers and semi-trailers
PJ5_3_21	Manufacture of other transport equipment
PJ5_3_22	Manufacture of furniture
PJ5_3_23	Other manufacturing
PJ5_3_24	Repair, maintenance and installation of machinery and equipment
PJ5_3_25	Other

If PJ5= PJ5_5	Please specify in more detail the main activity carried out by your previous workplace
PJ5_5_1	Water collection, treatment and supply
PJ5_5_2	Sewerage
PJ5_5_3	Waste collection, recovery and disposal activities
PJ5_5_4	Remediation activities and other waste management services
PJ5_5_5	Other

If PJ5= PJ5_6	Please specify in more detail the main activity carried out by your previous workplace
PJ5_6_1	Construction of residential and non-residential buildings
PJ5_6_2	Civil engineering
PJ5_6_3	Specialized construction activities
PJ5_6_4	Other

If PJ5= PJ5_7	Please specify in more detail the main activity carried out by your previous workplace
PJ5_7_1	Wholesale trade
PJ5_7_2	Retail trade
PJ5_7_3	Other

If PJ5= PJ5_8	Please specify in more detail the main activity carried out by your previous workplace
PJ5_8_1	Land transport and transport via pipelines
PJ5_8_2	Water transport
PJ5_8_3	Air transport
PJ5_8_4	Warehousing, storage and support activities for transportation
PJ5_8_5	Postal and courier activities
PJ5_8_6	Other

If PJ5= PJ5_9	Please specify in more detail the main activity carried out by your previous workplace
PJ5_9_1	Accommodation
PJ5_9_2	Food and beverage service activities
PJ5_9_3	Other

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If PJ5= PJ5_10	Please specify in more detail the main activity carried out by your previous workplace
PJ5_10_1	Publishing activities
PJ5_10_2	Motion picture, video and television programme production, sound recording and music publishing activities
PJ5_10_3	Programming, broadcasting, news agency and other content distribution activities
PJ5_10_4	Other

If PJ5= PJ5_11	Please specify in more detail the main activity carried out by your previous workplace
PJ5_11_1	Telecommunication
PJ5_11_2	Computer programming, consultancy and related activities
PJ5_11_3	Computing infrastructure, data processing, hosting and other information service activities
PJ5_11_4	Other

If PJ5= PJ5_12	Please specify in more detail the main activity carried out by your previous workplace
PJ5_12_1	Financial service activities, except insurance and pension funding
PJ5_12_2	Insurance, reinsurance and pension funding, except compulsory social security
PJ5_12_3	Activities auxiliary to financial services and insurance activities
PJ5_12_4	Other

If PJ5= PJ5_14	Please specify in more detail the main activity carried out by your previous workplace
PJ5_14_1	Legal and accounting activities
PJ5_14_2	Activities of head offices and management consultancy
PJ5_14_3	Architectural and engineering activities; technical testing and analysis
PJ5_14_4	Scientific research and development
PJ5_14_5	Activities of advertising, market research and public relations
PJ5_14_6	Other professional, scientific and technical activities
PJ5_14_7	Veterinary activities
PJ5_14_8	Other

If PJ5= PJ5_15	Please specify in more detail the main activity carried out by your previous workplace
PJ5_15_1	Rental and leasing activities
PJ5_15_2	Employment activities
PJ5_15_3	Travel agency, tour operator reservation service and related activities
PJ5_15_4	Investigation and security activities
PJ5_15_5	Services to buildings and landscape activities
PJ5_15_6	Office administrative, office support and other business support activities
PJ5_15_7	Other

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If PJ5= PJ5_18	Please specify in more detail the main activity carried out by your previous workplace
PJ5_18_1	Human health activities
PJ5_18_2	Residential care activities
PJ5_18_3	Social work activities without accommodation
PJ5_18_4	Other

If PJ5= PJ5_19	Please specify in more detail the main activity carried out by your previous workplace
PJ5_19_1	Arts creation and performing arts activities
PJ5_19_2	Libraries, archives, museums and other cultural activities
PJ5_19_3	Gambling and betting activities
PJ5_19_4	Sports activities and amusement and recreation activities
PJ5_19_5	Other

If PJ5= PJ5_20	Please specify in more detail the main activity carried out by your previous workplace
PJ5_20_1	Activities of membership organizations
PJ5_20_2	Repair and maintenance of computers, personal and household goods, and motor vehicles and motorcycles
PJ5_20_3	Personal service activities
PJ5_20_4	Other

If PJ5= PJ5_21	Please specify in more detail the main activity carried out by your previous workplace
PJ5_21_1	Activities of households as employers of domestic personnel
PJ5_21_2	Undifferentiated goods-and services-producing activities of private households for own use
PJ5_21_3	Other

PJ6	Thinking about your previous employer as a whole — how many people were employed by your company or organization in total (in [country])? Please include all employees across all branches, units, and locations in [country], not just your own workplace. If you are not sure of the exact number, please provide your best estimate.
PJ6_1	0-9
PJ6_2	10-49
PJ6_3	50-249
PJ6_4	250 and more
PJ6_5	Don't know

PJ7	In your job previous job, did you have any responsibility for supervising the work of other employees? Supervising is understood as both monitoring and being responsible for the work of others	
PJ7_1	Yes, this was my main work task	
PJ7_2	Yes, this was one of my work tasks	
PJ7_3	No	

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PJ8	Please rate your previous work on the following items: *Please evaluate all of the factors listed below – do not skip any of them*					
		Strongly disagree	*Disagree*	*Neither agree, nor disagree*	*Agree*	*Strongly agree*
PJ8_1	I was satisfied with my job overall					
PJ8_2	I had the opportunity to develop my skills					
PJ8_3	I was satisfied with my salary					
PJ8_4	I was satisfied with my working time					
PJ8_5	My job offered stable working conditions					
PJ8_6	Modern technological tools were used in my workplace					

PJ9	What was your place of residence during your previous job? *Please indicate the postal code of your residence at the time*
PJ9_1	*Slots limited to postal code format*
PJ9_2	I prefer not to answer

DEMOGRAPHIC SECTION

Finally, we kindly ask you to provide some personal information, which will be used solely for the purpose of statistical processing of the collected research data.

This block of questions is addressed to all respondents

M1	Please specify your age
M1_1	____ years
M1_2	I prefer not to answer

M2	Please indicate your gender / Would you describe yourself as
M2_1	Female
M2_2	Male
M2_3	Other
M2_4	I prefer not to answer

M3	Please indicate your level of education:
M3_1	ISCED 1 - Primary education →*go to M5*
M3_2	ISCED 2 - Lower secondary education →*go to M5*
M3_3	ISCED 3 - Upper secondary education →*go to M5*
M3_4	ISCED 4 - Post-secondary non-tertiary education →*go to M5*
M3_5	ISCED 5 - Short-cycle tertiary education →*go to M4*
M3_6	ISCED 6 - Bachelor's or equivalent level →*go to M4*

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M3	Please indicate your level of education:
M3_7	ISCED 7 - Master's or equivalent level →*go to M4*
M3_8	ISCED 8 - Doctoral or equivalent level →*go to M4*
M3_9	No formal education →*go to M5*
M3_10	I prefer not to answer →*go to M5*

M4	What was the main area of study, emphasis or major for your highest level of qualification?
M4_1	Economics, Business and Administration
M4_2	Law
M4_3	Health
M4_4	Welfare
M4_5	Social and Behavioral Sciences
M4_6	Journalism and Information
M4_7	Information and Communication Technologies (ICT)
M4_8	Natural Sciences, Mathematics and Statistics
M4_9	Engineering and Manufacturing
M4_10	Construction
M4_11	Agriculture, Forestry, Fisheries and Environmental Studies
M4_12	Personal and Community Services
M4_13	Security and Transport
M4_14	Education and Teacher Training
M4_15	Humanities, Languages and Arts
M4_16	No main area of study or emphasis, it was a general education programme
M4_17	I prefer not to answer

M5	Do you consider yourself a person with a disability?
M5_1	Yes
M5_2	No
M5_3	I prefer not to answer

M6	Do you consider yourself a refugee — that is, someone who left their country because of a well-founded fear of persecution, conflict, violence, or other serious threats to safety?
M6_1	Yes
M6_2	No
M6_3	I prefer not to answer

M7	Do you consider yourself a migrant — that is, someone who has moved from another country to live here, whether for work, study, family, or other reasons, temporarily or permanently?
M7_1	Yes →*go to M8*
M7_2	No →*go to M9*
M7_3	I prefer not to answer →*go to M8*

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M8	Country of birth (list)		
M8_1	**Austria**	M8_30	**Iceland**
M8_2	**Belgium**	M8_31	**Kosovo**
M8_3	**Bulgaria**	M8_32	**Moldova**
M8_4	**Croatia**	M8_33	**Montenegro**
M8_5	**Cyprus**	M8_34	**North Macedonia**
M8_6	**Czech Republic**	M8_35	**Norway**
M8_7	**Denmark**	M8_36	**Serbia**
M8_8	**Estonia**	M8_37	**Switzerland**
M8_9	**Finland**	M8_38	**Turkey**
M8_10	**France**	M8_39	**Ukraine**
M8_11	**Germany**	M8_40	**United Kingdom**
M8_12	**Greece**	M8_41	**India**
M8_13	**Hungary**	M8_42	**Pakistan**
M8_14	**Ireland**	M8_43	**Bangladesh**
M8_15	**Italy**	M8_44	**China**
M8_16	**Latvia**	M8_45	**Philippines**
M8_17	**Lithuania**	M8_46	**Syria**
M8_18	**Luxembourg**	M8_47	**Iraq**
M8_19	**Malta**	M8_48	**Afghanistan**
M8_20	**Netherlands**	M8_49	**Iran**
M8_21	**Poland**	M8_50	**Egypt**
M8_22	**Portugal**	M8_51	**Nigeria**
M8_23	**Romania**	M8_52	**Morocco**
M8_24	**Slovakia**	M8_53	**Tunisia**
M8_25	**Slovenia**	M8_54	**Algeria**
M8_26	**Spain**	M8_55	**Venezuela**
M8_27	**Sweden**	M8_56	**Colombia**
M8_28	**Albania**	M8_57	**Brazil**
M8_29	**Bosnia and Herzegovina**	M8_58	**Other**
		M8_59	I prefer not to answer

M9	What is the postal code of your residence?
M9_1	*Slots limited to postal code format*
M9_2	I prefer not to answer

Thank you very much once again for participating in the survey!

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3. Demand side of the labor market

This chapter presents the methodology, structure, and implementation of the primary data collection tool designed for the demand side of the labor market — specifically, the employers' questionnaire. The chapter is organized into three parts: (1) the definition of the target population, sampling model, and pilot test results; (2) the detailed structure of the questionnaire; and (3) the presentation of the instrument itself.

3.1 Targeted population, sampling method and pre-test results

Targeted Population

In the context of this study, the demand side of the labor market refers to enterprises or establishments that employ workers (at least 1 employee) and participate in shaping job structures, occupations, and skill needs. The employers' questionnaire is designed to collect data from companies that are actively involved in labor force management, including recruitment, restructuring, or job elimination over the previous 24 months.

The primary eligibility criterion for participation is the presence of any personnel movement within the company during the past 2 years. This includes:

- Creation of new positions that did not exist previously
- Elimination of existing roles
- Hiring or termination of employees

This design ensures that only companies engaged with recent labor market changes are included, increasing the relevance of the data to the ISABEL project's goals. Firms that report no personnel changes as abovementioned during the reference period are excluded, as they cannot provide substantive insight into job dynamics, hiring practices, or shifting occupational and skill demands.

The survey is aimed at company representatives who possess a comprehensive view of employment developments—typically HR managers, directors, owners or other personnel responsible for recruitment or workforce planning.

Sampling Method and Composition

The proposed sample size is 400 companies per country of focus (Denmark, Spain, Greece, Poland, Serbia and United Kingdom), forming the core of the demand-side data collection.

The sampling strategy is expected to follow a quota-based approach. While this approach does not rely on probabilistic sampling, it enables the collection of thematically rich and structurally diverse data, which is critical for assessing JCD and related skill transformations.

While the overall sample follows a quota-based logic primarily oriented toward capturing company-level transitions, attention is paid to ensuring diversity in company profiles. Micro and small enterprises, which make up the overwhelming majority of businesses in all participating countries, are naturally expected to be well represented in the collected data.

Given the limited sample size, introducing additional stratifications could risk compromising overall data quality and representativeness. The detailed information and evaluation of sampling will be presented in D4.1

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Given the specificity of the target population and the need to reach qualified respondents with insight into company-level employment decisions, the sample will be collected by professional research companies. These firms will employ a mixed-mode strategy, combining Computer-Assisted Web Interviewing (CAWI) with Computer-Assisted Telephone Interviewing (CATI). In particular, CATI will be used to pre-screen and identify appropriate company representatives, such as HR managers or other personnel responsible for recruitment, especially in larger enterprises and medium-sized firms where direct access via web panels may be limited or unreliable. CAWI will then serve as the primary mode of questionnaire administration, benefiting from automation and advanced routing capabilities. This two-stage approach ensures both targeted respondent identification and efficient data collection, enhancing the reliability and relevance of the dataset.
As with the supply-side questionnaire, quota balancing and sample monitoring will be carried out through a CAWI platform capable of enforcing logical branching, quotas, and conditional paths in real time.

Pre-Test Results
A pilot study of the employers' questionnaire was conducted in August 2025 in Poland by a professional research company (Grupa BST Sp. z o.o.). The objective was to assess the logical structure, clarity, and technical viability of the instrument prior to international rollout. The pilot involved a small but varied sample of companies and yielded several valuable insights.

- The logical consistency of the questionnaire was rated as high, with a well-structured sequence of thematic blocks. However, due to the complexity of some sections—particularly those addressing job creation and elimination—precise filtering logic was identified as essential. Respondents must be guided through the tool in a way that avoids unnecessary or irrelevant sections. This further supports the selection of a CAWI platform with advanced routing capabilities, such as LimeSurvey or CADAS.
- The average completion time across all respondents was 13 minutes and 18 seconds, well within acceptable limits. However, for companies reporting job creation or elimination activity, the completion time could exceed 20 minutes — and in some complex cases, over an hour. This was flagged as a critical risk, and appropriate filters (e.g., skipping PM3–PM6 when zero jobs were created or eliminated) have been introduced.
- Most feedback provided by the pilot evaluation team has been incorporated. Notable adjustments include:
    - Filtering rules tied to reported job flows (e.g., skipping follow-ups when no jobs were created/eliminated)
    - Simplification of ambiguous or redundant questions (e.g. removal of non-aggregable "other" options)
    - Clarification of terminology, particularly the use of "personnel movement," which now explicitly includes job creation and destruction
- Some recommended changes, such as the removal of the postal code question, were not adopted. Geographical representation is essential to the project's analytical objectives, especially in examining regional disparities and spatial aspects of job change. Therefore, the postal code item remains in the final version.
- The pilot also confirmed the need for trained analysts to handle the statistical outputs of the questionnaire, due to the technical and logical complexity of its

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design.

A full summary of the pilot recommendations and the rationale for changes is provided in Annex 2 of this report.

3.2 Structure and design of the employers' questionnaire

The employers' questionnaire is designed as a structured and modular tool for collecting standardized information from organizational representatives about job creation, job elimination, recruitment challenges, and the evolving skill demands shaped by the green and digital transitions. The instrument comprises four major sections: Entry Questions, Company Profile, Personnel Movements, and Skills Assessment, with conditional routing used to tailor the content based on earlier answers. Most questions were set as mandatory, unless explicitly marked otherwise — particularly in cases involving routing, where certain questions were omitted for some respondents based on their previous answers.

Survey Entry and Routing Logic
The questionnaire begins with two screening questions. The first captures informed consent (CQ1), while the second (CQ2) asks whether there have been any personnel movements in the company over the past 24 months, such as hires, exits, or internal transfers. Only respondents affirming that such changes have occurred proceed further; those selecting "no" exit the survey at this stage. This logic ensures the relevance of the remaining questions and focuses analysis on companies undergoing workforce dynamics.

Company Profile Section
The Company Profile block gathers contextual information about the responding unit. It captures the type of organization (e.g. private, public, cooperative), its postal location, and whether the responding unit is a headquarter or a local branch. Sectoral classification follows the same two-level structure (NACE rev.2 update 1) as in the employee questionnaire. As the surveyed company may represent a local branch rather than the entire organization, questions MQ2 and MQ3 refer specifically to the organizational unit for which the respondent is responsible. By "local branch" we mean the particular workplace or operational site (e.g. factory, office, or store) to which the respondent's answers relate, even if the enterprise operates at multiple locations.

Personnel Movements Section
The Personnel Movements section is the analytical core of the survey. It explores the quantitative and qualitative dimensions of job changes at the organizational level over the past year, with a strong focus on job creation and elimination.

A central element of this section is Question PM2, which directly addresses job creation and job destruction—the two main dynamics shaping labor market transformation and a focal point for the project's analytical framework. PM2 asks companies to report how many positions have been created and eliminated over the past 24 months:

- Jobs created are defined as newly established positions that did not exist previously within the company's location. Respondents are explicitly instructed not to count replacements for existing roles (e.g. due to resignation, retirement, or dismissal).

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- Jobs eliminated are understood as permanently discontinued positions, resulting in a net reduction of roles. Temporary vacancies or roles that were later refilled are excluded from this count.

This question serves a crucial filtering function within the survey logic. While it is analytically vital, not all companies experience both job creation and elimination within a given 2 years. Therefore, based on the response to PM2:

- If the number of jobs created (PM2_1) is reported as zero, the respondent is automatically routed past PM3 and PM4.
- If no jobs were eliminated (PM2_2 = 0), the survey skips PM5 and PM6.

This conditional routing allows the survey to adapt flexibly to the company's situation, ensuring that only relevant follow-up questions are asked. It also prevents respondent fatigue and enhances data quality. Importantly, even though PM2 is pivotal for understanding employment dynamics, it is not used as a selection criterion for the survey as a whole—companies are eligible to participate as long as they report any type of personnel movement (per CQ2), whether or not they have added or eliminated roles.

Subsequent questions in this section allow for detailed breakdowns:

- PM3: Characteristics (gender, disability, migration background) of individuals hired into newly created roles.
- PM4: Occupational structure of newly created jobs, using the ISCO-08 classification, with two-level reporting (1-digit main groups and 2-digit subcategories).
- PM5 and PM6: Equivalent breakdowns for positions that were eliminated, also following the ISCO classification.

Although tools such as CASCOT were explored to assist with occupational coding, they were ultimately not used due to insufficient language coverage for the project's six-country implementation.

In addition, PM7 investigates whether the company experienced hiring difficulties across different occupational groups, while PM8 and PM9 examine the relevance of the green and digital transitions in shaping personnel changes.

Skills Section

The Skills section investigates how skill requirements are shifting as a result of broader economic transformations. This section is especially important in the context of the ISABEL project, which focuses on how technological and environmental changes affect labor demand.

- SQ1 and SQ2 ask about the types of skills associated with newly created and eliminated positions, respectively. Organizations are presented with a predefined list of 13 skill domains (e.g. Digital and Technology Skills, STEM and Industrial Applications Skills, Communication and Interpersonal Skills). These skill categories were developed during the ISABEL project and are analogous with the employee questionnaire (questions U6 and CJ2).
- SQ3–SQ6 capture skill demand shifts driven specifically by the green and digital transitions. Respondents are asked which skill areas have increased or decreased in relevance in response to these trends. This allows a dynamic view of how external transitions are shaping internal workforce capabilities.
- SQ7 focuses on recruitment difficulties related to specific skill sets. Companies report whether they have experienced problems hiring candidates with each of

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the 13 skill groups mentioned earlier, covering both domain-specific competencies (e.g. IT, logistics, healthcare) and transversal skills (e.g. sustainability, multilingualism, safety awareness). This question helps identify not only which skills are in demand, but also those that are currently in short supply, providing key insights into mismatches in the labor market.

- SQ8 further deepens the analysis by exploring whether the green and digital transitions have changed the tasks employees are required to perform. Respondents first indicate whether either transition has had such an effect, and if so, specify which one(s):
  - SQ8_1 asks whether the green transition has altered the nature of tasks performed by employees.
  - SQ8_2 asks the same regarding the digital transition.

These additions highlight not just the demand for different skills, but also the evolution of job content itself—shedding light on how technological and environmental changes are reshaping daily work at the task level.

During the development of the employers' questionnaire, the research team drew conceptual inspiration from a number of established international survey instruments, including the European Company Survey (Eurofound 2019), the School-to-Work Transition Survey (ILO 2016), and the IGSS questionnaire by Cedefop (2021). One such instrument is the *Future of Jobs Survey 2024* conducted by the World Economic Forum (WEF, 2024), which provided important reference points, particularly in terms of framing questions related to skills use, workforce transformation, and future job trends. For instance, questions on evolving skill needs and organizational workforce strategies under the influence of technological change share similarities with WEF items, such as the list of expected skill increases and decreases by 2030 or training outcome expectations. While the ISABEL questionnaire has been substantially adapted to reflect the project's specific research goals, this alignment ensures compatibility with broader labor market research practices. All adaptations were carefully contextualized to fit the scope of job creation and destruction analysis in the context of green and digital transitions.

3.3 Employers' questionnaire

Dear respondent,

This questionnaire is conducted by [Company Name], a research firm commissioned by [University Name] as part of the European research project ISABEL.

The goal of this study is to understand how jobs are being created and eliminated in Europe, particularly in the context of the green transition and digital transition. The findings will help shape better public policies and provide support to businesses and workers facing rapid technological and environmental change.

The survey is anonymous, and all responses will be used solely in aggregated (statistical) form. It is not possible to identify individual companies or respondents from the data.

Your organization has been invited to participate in this survey, which aims to collect insights from a broad and diverse range of companies across the country. We kindly ask that the questionnaire be completed by a person who:

- owns, manages, or supervises staff in the company or branch,

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- and is familiar with employment and workforce policies.

Most questions require selecting only one answer, unless the instructions specify otherwise.
We sincerely encourage honest and thoughtful responses — your input is crucial for generating meaningful results, even if completing the questionnaire requires some time and attention.

Key Definitions

- ***Jobs created:*** Refers to newly established positions that did not exist previously within the company or location. Do not count cases where someone was simply replaced (e.g. after resignation, retirement, or dismissal).
- ***Jobs eliminated:*** Refers to positions that have been permanently discontinued, resulting in a net reduction of roles at this location. Do not count temporary vacancies or roles that were later refilled.
- ***Green transition:*** Refers to the shift toward more environmentally sustainable business models and practices. This includes reducing greenhouse gas emissions, improving energy efficiency, adopting circular economy principles, transitioning to renewable energy sources, and complying with climate-related regulations or targets (e.g. net zero).
- ***Digital transition:*** Refers to the adoption and integration of digital technologies across business operations. This includes greater use of automation, artificial intelligence (AI), data analytics, digital platforms, cloud computing, and transforming products, services, and internal processes using digital tools.

ENTRY QUESTIONS

CQ1	**By continuing with this questionnaire, you confirm that you agree to participate voluntarily and that you understand the information you provide will be used for research purposes only. Your responses will be kept confidential and anonymized. You may withdraw at any time without any consequences. Do you consent to participate in this survey?**
CQ1_1	Yes, I consent
CQ1_2	No, I do not consent →*Thank you for your time. This concludes the survey*

CQ2	**Have there been any personnel movement in your company in last 24 months?** *By personnel movements we mean any changes in the workforce of your company, including new hires, contract terminations.*
CQ2_1	Yes,
CQ2_2	No, →*Thank you for your time. This concludes the survey*

Questions

PROFILE/METRIC QUESTIONS

MQ1	**Which of the following best describes the type of organization you represent or manage?**
MQ1_1	Privately-owned organization
MQ1_2	State owned company

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MQ1_3	Collective or cooperative organization
MQ1_4	Public sector organization
MQ1_5	Not-for-profit trust, charity or non-Governmental organization
MQ1_6	Other type of organization

MQ2	**What is the postal code of the company or local branch you represent?** *Local branch refers to the specific location (e.g. factory, office, store) that this response concerns. If your company has multiple locations, please respond based on the branch you are responsible for. Limited digits to a code*

MQ3	**Which of the following best describes the organizational structure and the location of the responding unit within your company or organization?** *Please select one option*
MQ3_1	It is a headquarter or the country headquarter of the organization → *go to 5MQ*
MQ3_2	It is a branch/factory/unit/store of the organization → *go to 4MQ*
MQ3_3	It is an organization/company with only one workplace → *go to 4MQ*
MQ3_4	Don't know → *go to 4MQ*

MQ4	**What is the postal code of company's headquarters in (the country)?**
	Limited digits to a code

MQ5	**What is the main activity carried out by your workplace? (single choice)**
MQ5_1	Agriculture, forestry and fishing
MQ5_2	Mining and quarrying
MQ5_3	Manufacturing
MQ5_4	Electricity, gas, steam and air conditioning supply → *go to PM1*
MQ5_5	Water supply; sewerage, waste management and remediation activities
MQ5_6	Construction
MQ5_7	Wholesale and retail trade
MQ5_8	Transportation and storage
MQ5_9	Accommodation and food service activities
MQ5_10	Publishing, broadcasting, and content production and distribution activities
MQ5_11	Telecommunication, computer programming, consulting, computing infrastructure and other information service activities
MQ5_12	Financial and insurance activities
MQ5_13	Real estate activities → *go to PM1*
MQ5_14	Professional, scientific and technical activities
MQ5_15	Administrative and support service activities
MQ5_16	Public administration and defense; compulsory social security → *go to PM1*
MQ5_17	Education → *go to PM1*
MQ5_18	Human health and social work activities
MQ5_19	Arts, sports and recreation
MQ5_20	Other service activities
MQ5_21	Activities of households as employers and undifferentiated goods - and services - producing activities for own use
MQ5_22	Activities of extraterritorial organizations and bodies → *go to PM1*

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MQ5_23	Don't know → *go to PM1*

If MQ5 = MQ5_1	**Please specify in more detail the main activity carried out by your workplace**
MQ5_1_1	Crop and animal production, hunting and related service activities
MQ5_1_2	Forestry and logging
MQ5_1_3	Fishing and aquaculture

If MQ5 = MQ5_2	**Please specify in more detail the main activity carried out by your workplace**
MQ5_2_1	Mining of coal and lignite
MQ5_2_2	Extraction of crude petroleum and natural gas
MQ5_2_3	Mining of metal ores
MQ5_2_4	Other mining and quarrying
MQ5_2_5	Mining support service activities

If MQ5 = MQ5_3	**Please specify in more detail the main activity carried out by your workplace**
MQ5_3_1	Manufacture of food products
MQ5_3_2	Manufacture of beverages
MQ5_3_3	Manufacture of tobacco products
MQ5_3_4	Manufacture of textiles
MQ5_3_5	Manufacture of wearing apparel
MQ5_3_6	Manufacture of leather and related products
MQ5_3_7	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
MQ5_3_8	Manufacture of paper and paper products
MQ5_3_9	Printing and reproduction of recorded media
MQ5_3_10	Manufacture of coke and refined petroleum products
MQ5_3_11	Manufacture of chemicals and chemical products
MQ5_3_12	Manufacture of basic pharmaceutical products and pharmaceutical preparations
MQ5_3_13	Manufacture of rubber and plastic products
MQ5_3_14	Manufacture of other non-metallic mineral products
MQ5_3_15	Manufacture of basic metals
MQ5_3_16	Manufacture of fabricated metal products, except machinery and equipment
MQ5_3_17	Manufacture of computer, electronic and optical products
MQ5_3_18	Manufacture of electrical equipment
MQ5_3_19	Manufacture of machinery and equipment n.e.c.
MQ5_3_20	Manufacture of motor vehicles, trailers and semi-trailers
MQ5_3_21	Manufacture of other transport equipment
MQ5_3_22	Manufacture of furniture
MQ5_3_23	Other manufacturing
MQ5_3_24	Repair, maintenance and installation of machinery and equipment

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If MQ5 = MQ5_5	Please specify in more detail the main activity carried out by your workplace
MQ5_5_1	Water collection, treatment and supply
MQ5_5_2	Sewerage
MQ5_5_3	Waste collection, recovery and disposal activities
MQ5_5_4	Remediation activities and other waste management service activities

If MQ5 = MQ5_6	Please specify in more detail the main activity carried out by your workplace
MQ5_6_1	Construction of residential and non-residential buildings
MQ5_6_2	Civil engineering
MQ5_6_3	Specialized construction activities

If MQ5 = MQ5_7	Please specify in more detail the main activity carried out by your workplace
MQ5_7_1	Wholesale trade
MQ5_7_2	Retail trade

If MQ5 = MQ5_8	Please specify in more detail the main activity carried out by your workplace
MQ5_8_1	Land transport and transport via pipelines
MQ5_8_2	Water transport
MQ5_8_3	Air transport
MQ5_8_4	Warehousing, storage and support activities for transportation
MQ5_8_5	Postal and courier activities

If MQ5 = MQ5_9	Please specify in more detail the main activity carried out by your workplace
MQ5_9_1	Accommodation
MQ5_9_2	Food and beverage service activities

If MQ5 = MQ5_10	Please specify in more detail the main activity carried out by your workplace
MQ5_10_1	Publishing activities
MQ5_10_2	Motion picture, video and television programme production, sound recording and music publishing activities
MQ5_10_3	Programming, broadcasting, news agency and other content distribution activities

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If MQ5 = MQ5_11	Please specify in more detail the main activity carried out by your workplace
MQ5_11_1	Telecommunication
MQ5_11_2	Computer programming, consultancy and related activities
MQ5_11_3	Computing infrastructure, data processing, hosting and other information service activities

If MQ5 = MQ5_12	Please specify in more detail the main activity carried out by your workplace
MQ5_12_1	Financial service activities, except insurance and pension funding
MQ5_12_2	Insurance, reinsurance and pension funding, except compulsory social security
MQ5_12_3	Activities auxiliary to financial services and insurance activities

If MQ5 = MQ5_14	Please specify in more detail the main activity carried out by your workplace
MQ5_14_1	Legal and accounting activities
MQ5_14_2	Activities of head offices; management consultancy activities
MQ5_14_3	Architectural and engineering activities; technical testing and analysis
MQ5_14_4	Scientific research and development
MQ5_14_5	Activities of advertising, market research and public relations
MQ5_14_6	Other professional, scientific and technical activities
MQ5_14_7	Veterinary activities

If MQ5 = MQ5_15	Please specify in more detail the main activity carried out by your workplace
MQ5_15_1	Rental and leasing activities
MQ5_15_2	Employment activities
MQ5_15_3	Travel agency, tour operator reservation service and related activities
MQ5_15_4	Investigation and security activities
MQ5_15_5	Services to buildings and landscape activities
MQ5_15_6	Office administrative, office support and other business support activities

If MQ5 = MQ5_18	Please specify in more detail the main activity carried out by your workplace
MQ5_18_1	Human health activities
MQ5_18_2	Residential care activities
MQ5_18_3	Social work activities without accommodation

If MQ5 = MQ5_19	Please specify in more detail the main activity carried out by your workplace
MQ5_19_1	Arts creation and performing arts activities

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If MQ5 = MQ5_19	Please specify in more detail the main activity carried out by your workplace
MQ5_19_2	Libraries, archives, museums and other cultural activities
MQ5_19_3	Gambling and betting activities
MQ5_19_4	Sports activities and amusement and recreation activities

If MQ5 = MQ5_20	Please specify in more detail the main activity carried out by your workplace
MQ5_20_1	Activities of membership organizations
MQ5_20_2	Repair and maintenance of computers, personal and household goods, and motor vehicles and motorcycles
MQ5_20_3	Personal service activities

If MQ5 = MQ5_21	Please specify in more detail the main activity carried out by your workplace
MQ5_21_1	Activities of households as employers of domestic personnel
MQ5_21_2	Undifferentiated goods - and services - producing activities of private households for own use

PERSONNEL MOVEMENTS

PM1	Please indicate the number of employees in your company/organization currently and 24 months ago *Please include both full-time and part-time workers*	
PM1_1	**Currently**	*Total number:*
PM1_2	**12 months ago**	*Total number:*
PM1_3	**24 months ago**	*Total number:*

PM2	How many jobs have been created and eliminated in your company in last 24 months ***Jobs created** are understood as newly established positions that did not exist previously within the company's location. Do not count positions where someone was simply replaced (e.g. after resignation, retirement, or dismissal).* ***Jobs eliminated** refer to positions that have been permanently discontinued, resulting in a net reduction in roles at your company's location. Do not count temporary vacancies or roles that were later refilled.*	
PM2_1	**Jobs created**	*Total number: if answer = 0 skip PM3 and PM4*
PM2_2	**Jobs eliminated**	*Total number: if answer = 0 skip PM5 and PM6*

PM3	In the past 24 months, who filled the newly created jobs in your company (at your location): *Please indicate the number of newly created positions (i.e. roles that did not exist before). Do not include jobs where a previous employee was simply replaced (e.g. due to retirement or resignation).*	
PM3_1	Men	*Total number:*
PM3_2	Women	*Total number:*
PM3_3	Persons with disabilities	*Total number:*

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PM3	**In the past 24 months, who filled the newly created jobs in your company (at your location):** *Please indicate the number of newly created positions (i.e. roles that did not exist before). Do not include jobs where a previous employee was simply replaced (e.g. due to retirement or resignation).*	
PM3_4	Persons from other countries	*Total number:*

PM4	**In the past 24 months, how many new jobs were created in your company (at your location) with the following occupational groups?** *Please indicate the number of newly created positions (i.e. roles that did not exist before). Please do not include jobs where a previous employee was simply replaced (e.g. due to retirement or resignation)* *The total number of jobs entered below should match the total number of jobs created in PM2_1. If you are unsure of the exact distribution, please provide your best estimate.*	
PM4_1	A manager	*Total number:*
PM4_2	A professional	*Total number:*
PM4_3	A technician or associate professional	*Total number:*
PM4_4	Clerical Support	*Total number:*
PM4_5	A Sales, Customer or Personal Service Worker	*Total number:*
PM4_6	A Skilled Agricultural, Forestry and Fishery Worker	*Total number:*
PM4_7	Building, Crafts or a Related Trade Person	*Total number:*
PM4_8	Plant and Machine Operator and Assembler	*Total number:*
PM4_9	Elementary occupations	*Total number:*
PM4_10	Employed in a military capacity by the Armed Forces	*Total number:*
PM4_11	Other occupational group *→go to PM5 or if PM2_2 = 0 skip PM5 and PM6*	*Total number:*

If PM4 = PM4_1	**Please specify how many jobs were created in each sub-category:**	
PM4_1_1	A Chief Executive, Senior Official or Legislator	*Total number:*
PM4_1_2	An Administrative or Commercial Manager, for example, business services and administration managers, or sales, marketing and development managers	*Total number:*
PM4_1_3	A Production or Specialized Services Manager, for example, production managers in agriculture, forestry and fisheries, manufacturing, mining, construction and distribution managers, information and communications	*Total number:*
PM4_1_4	A Hospitality, Retail or Other Services Manager	*Total number:*
PM4_1_5	Other occupational group	*Total number:*

If PM4 = PM4_2	**Please specify how many jobs were created in each sub-category:**	
PM4_2_1	A Science and Engineering Professional	*Total number:*
PM4_2_2	A Health Professional	*Total number:*
PM4_2_3	A Teaching Professional	*Total number:*

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PM4_2_4	A Business and Administration Professional	*Total number:*
PM4_2_5	An Information and Communications Technology Professional	*Total number:*
PM4_2_6	Legal, Social and Cultural Professional	*Total number:*
PM4_2_7	Other occupational group	*Total number:*

If PM4 = PM4_3	**Please specify how many jobs were created in each sub-category:**	
PM4_3_1	Science and Engineering Associate Professional	*Total number:*
PM4_3_2	Health Associate Professional	*Total number:*
PM4_3_3	Business and Administration Associate Professional	*Total number:*
PM4_3_4	Legal, Social and Cultural Associate Professional	*Total number:*
PM4_3_5	Information and Communications Technology Technician	*Total number:*
PM4_3_6	Other occupational group	*Total number:*

If PM4 = PM4_4	**Please specify how many jobs were created in each sub-category:**	
PM4_4_1	A General or Keyboard Clerk	*Total number:*
PM4_4_2	A Customer Services Clerk	*Total number:*
PM4_4_3	A Numerical and Material Recording Clerk	*Total number:*
PM4_4_4	Another Clerical Support Worker	*Total number:*
PM4_4_5	Other occupational group	*Total number:*

If PM4 = PM4_5	**Please specify how many jobs were created in each sub-category:**	
PM4_5_1	A Personal Services Worker	*Total number:*
PM4_5_2	A Sales Worker	*Total number:*
PM4_5_3	A Personal Care Worker	*Total number:*
PM4_5_4	A Protective Service Worker	*Total number:*
PM4_5_5	Other occupational group	*Total number:*

If PM4 = PM4_6	**Please specify how many jobs were created in each sub-category:**	
PM4_6_1	A Skilled Agricultural Worker	*Total number:*
PM4_6_2	A Skilled Forestry, Fishery and Hunting Worker	*Total number:*
PM4_6_3	A Subsistence Farmer, Fisher, Hunter	*Total number:*
PM4_6_4	Other occupational group	*Total number:*

If PM4 = PM4_7	**Please specify how many jobs were created in each sub-category:**	
PM4_7_1	Building and Related Trades Worker	*Total number:*
PM4_7_2	A Metal, Machinery and Related Trades Worker	*Total number:*
PM4_7_3	A Handicraft and Printing Worker	*Total number:*
PM4_7_4	An Electrical and Electronic Trades Worker	*Total number:*
PM4_7_5	A Food Processing, Woodworking, Garment and Other Craft and Related Trades Worker	*Total number:*

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PM4_7_6	Other occupational group	*Total number:*

If PM4= PM4_8	Please specify how many jobs were created in each sub-category:	
PM4_8_1	A Stationary Plant or Machine Operator	*Total number:*
PM4_8_2	An Assembler	*Total number:*
PM4_8_3	A Driver or Mobile Plant Operator	*Total number:*
PM4_8_4	Other occupational group	*Total number:*

If PM4 = PM4_9	Please specify how many jobs were created in each sub-category:	
PM4_9_1	A Cleaner or Helper	*Total number:*
PM4_9_2	An Agricultural, Forestry and Fishery Laborer	*Total number:*
PM4_9_3	A Laborer in Mining, Construction, Manufacturing or Transport	*Total number:*
PM4_9_4	A Food Preparation Assistant	*Total number:*
PM4_9_5	A Street and other Sales or Services Worker	*Total number:*
PM4_9_6	Refuse Worker and Other Elementary Worker	*Total number:*
PM4_9_7	Other occupational group	*Total number:*

If PM4 = PM4_10	Please specify how many jobs were created in each sub-category:	
PM4_10_1	A Commissioned Armed Forces Officer	*Total number:*
PM4_10_2	A Non-Commissioned Armed Forces Officer	*Total number:*
PM4_10_3	An Armed Forces Occupations, Other Rank	*Total number:*
PM4_10_4	Other occupational group	*Total number:*

PM5	In the past 24 months, who lost their job in your company (at your location)? *Please indicate the number of existing positions that have been eliminated and not replaced. Please do not include jobs where a previous employee was simply replaced (e.g. due to retirement or resignation)*	
PM5_1	Men	*Total number:*
PM5_2	Women	*Total number:*
PM5_3	Persons with disabilities	*Total number:*
PM5_4	Persons from other countries	*Total number:*

PM6	In the past 24 months, how many jobs were eliminated in your company (at your location) in each of the following occupational groups? *Please indicate the number of existing positions that have been eliminated and not replaced. Please do not include replacements or unchanged positions. Only report net reductions in job roles.* *The total number of jobs entered below should match the total number of jobs created in PM2_1. If you are unsure of the exact distribution, please provide your best estimate.*	
PM6_1	A manager	*Total number:*
PM6_2	A professional	*Total number:*
PM6_3	A technician or associate professional	*Total number:*

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PM6_4	Clerical Support	*Total number:*
PM6_5	A Sales, Customer or Personal Service Worker	*Total number:*
PM6_6	A Skilled Agricultural, Forestry and Fishery Worker	*Total number:*
PM6_7	Building, Crafts or a Related Trade Person	*Total number:*
PM6_8	Plant and Machine Operator and Assembler	*Total number:*
PM3_9	Elementary occupations	*Total number:*
PM6_10	Employed in a military capacity by the Armed Forces	*Total number:*
PM6_11	Other occupational group *→go to PM7*	*Total number:*

If PM6 = PM6_1	**Please specify how many jobs were eliminated in each sub-category:**	
PM6_1_1	A Chief Executive, Senior Official or Legislator	*Total number:*
PM6_1_2	An Administrative or Commercial Manager	*Total number:*
PM6_1_3	A Production or Specialized Services Manager	*Total number:*
PM6_1_4	A Hospitality, Retail or Other Services Manager	*Total number:*
PM6_1_5	Other occupational group	*Total number:*

If PM6 = PM6_2	**Please specify how many jobs were eliminated in each sub-category:**	
PM6_2_1	A Science and Engineering Professional	*Total number:*
PM6_2_2	A Health Professional	*Total number:*
PM6_2_3	A Teaching Professional	*Total number:*
PM6_2_4	A Business and Administration Professional	*Total number:*
PM6_2_5	An Information and Communications Technology Professional	*Total number:*
PM6_2_6	Legal, Social and Cultural Professional	*Total number:*
PM6_2_7	Other occupational group	*Total number:*

If PM6 = PM6_3	**Please specify how many jobs were eliminated in each sub-category:**	
PM6_3_1	Science and Engineering Associate Professional	*Total number:*
PM6_3_2	Health Associate Professional	*Total number:*
PM6_3_3	Business and Administration Associate Professional	*Total number:*
PM6_3_4	Legal, Social and Cultural Associate Professional	*Total number:*
PM6_3_5	Information and Communications Technology Technician	*Total number:*
PM6_3_6	Other occupational group	*Total number:*

If PM6 = PM6_4	**Please specify how many jobs were eliminated in each sub-category:**	
PM6_4_1	A General or Keyboard Clerk	*Total number:*
PM6_4_2	A Customer Services Clerk	*Total number:*
PM6_4_3	A Numerical and Material Recording Clerk	*Total number:*
PM6_4_4	Another Clerical Support Worker	*Total number:*
PM6_4_5	Other occupational group	*Total number:*

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If PM6 = PM6_5	Please specify how many jobs were eliminated in each sub-category:	
PM6_5_1	A Personal Services Worker	*Total number:*
PM6_5_2	A Sales Worker	*Total number:*
PM6_5_3	A Personal Care Worker	*Total number:*
PM6_5_4	A Protective Service Worker	*Total number:*
PM6_5_5	Other occupational group	*Total number:*

If PM6 = PM6_6	Please specify how many jobs were eliminated in each sub-category:	
PM6_6_1	A Skilled Agricultural Worker	*Total number:*
PM6_6_2	A Skilled Forestry, Fishery and Hunting Worker	*Total number:*
PM6_6_3	A Subsistence Farmer, Fisher, Hunter	*Total number:*
PM6_6_4	Other occupational group	*Total number:*

If PM6 = PM6_7	Please specify how many jobs were eliminated in each sub-category:	
PM6_7_1	Building and Related Trades Worker	*Total number:*
PM6_7_2	A Metal, Machinery and Related Trades Worker	*Total number:*
PM6_7_3	A Handicraft and Printing Worker	*Total number:*
PM6_7_4	An Electrical and Electronic Trades Worker	*Total number:*
PM6_7_5	A Food Processing, Woodworking, Garment and Other Craft and Related Trades Worker	*Total number:*
PM6_7_6	Other occupational group	*Total number:*

If PM6 = PM6_8	Please specify how many jobs were eliminated in each sub-category:	
PM6_8_1	A Stationary Plant or Machine Operator	*Total number:*
PM6_8_2	An Assembler	*Total number:*
PM6_8_3	A Driver or Mobile Plant Operator	*Total number:*
PM6_8_4	Other occupational group	*Total number:*

If PM6 = PM6_9	Please specify how many jobs were eliminated in each sub-category:	
PM6_9_1	A Cleaner or Helper	*Total number:*
PM6_9_2	An Agricultural, Forestry and Fishery Laborer	*Total number:*
PM6_9_3	A Laborer in Mining, Construction, Manufacturing or Transport	*Total number:*
PM6_9_4	A Food Preparation Assistant	*Total number:*
PM6_9_5	A Street and other Sales or Services Worker	*Total number:*
PM6_9_6	Refuse Worker and Other Elementary Worker	*Total number:*
PM6_9_7	Other occupational group	*Total number:*

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If PM6 = PM6_10	Please specify how many jobs were eliminated in each sub-category:	
PM6_10_1	A Commissioned Armed Forces Officer	*Total number:*
PM6_10_2	A Non-Commissioned Armed Forces Officer	*Total number:*
PM6_10_3	An Armed Forces Occupations, Other Rank	*Total number:*
PM6_10_4	Other occupational group	*Total number:*

PM7	Have you faced difficulties hiring workers in the following occupations in the past 24 months?			
		YES	*NO*	*No hiring workers for this occupation*
PM7_1	Managers			
PM7_2	Professionals			
PM7_3	Technicians and associate professionals			
PM7_4	Clerical support workers			
PM7_5	Services and sales workers			
PM7_6	Skilled agricultural, forestry and fishery workers			
PM7_7	Craft and related trades workers			
PM7_8	Plant and machine operators and assemblers			
PM7_9	Elementary occupations			
PM7_10	Employed in a military capacity by the Armed Forces			

PM8	**For personnel changes in which occupations was and is the green transition important?** ***Green transition*** *refers to the shift toward more environmentally sustainable business models and practices. This includes efforts to reduce greenhouse gas emissions, improve energy efficiency, transition to renewable energy sources, adopt circular economy principles, and comply with environmental regulations or climate-related targets (e.g., net zero).* ***Tick all that apply***
PM8_1	Managers
PM8_2	Professionals
PM8_3	Technicians and associate professionals
PM8_4	Clerical support workers
PM8_5	Services and sales workers
PM8_6	Skilled agricultural, forestry and fishery workers
PM8_7	Craft and related trades workers
PM8_8	Plant and machine operators and assemblers
PM8_9	Elementary occupations
PM8_10	Employed in a military capacity by the Armed Forces
PM8_11	Green transition was not important for hiring any of these occupations

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PM9	**For personnel changes in which occupations was and is the digital transition important?** ***Digital transition*** *refers to the adoption and integration of digital technologies across business operations. This includes increased use of automation, artificial intelligence (AI), data analytics, digital tools and platforms, cloud computing, and the transformation of products, services, and internal processes through digital means.* ***Tick all that apply***
PM9_1	Managers
PM9_2	Professionals
PM9_3	Technicians and associate professionals
PM9_4	Clerical support workers
PM9_5	Services and sales workers
PM9_6	Skilled agricultural, forestry and fishery workers
PM9_7	Craft and related trades workers
PM9_8	Plant and machine operators and assemblers
PM9_9	Elementary occupations
PM9_10	Employed in a military capacity by the Armed Forces
PM9_11	Digital transition was not important for hiring any of these occupations

PM10	**Which occupations in your company have changed the most in terms of skills and tasks in the last five years due to the green transition?** ***Green transition*** *refers to the shift toward more environmentally sustainable business models and practices. This includes efforts to reduce greenhouse gas emissions, improve energy efficiency, transition to renewable energy sources, adopt circular economy principles, and comply with environmental regulations or climate-related targets (e.g., net zero).* ***Tick all that apply***
PM10_1	Managers
PM10_2	Professionals
PM10_3	Technicians and associate professionals
PM10_4	Clerical support workers
PM10_5	Services and sales workers
PM10_6	Skilled agricultural, forestry and fishery workers
PM10_7	Craft and related trades workers
PM10_8	Plant and machine operators and assemblers
PM10_9	Elementary occupations
PM10_10	Employed in a military capacity by the Armed Forces
PM10_11	Green transition was not important for hiring any of these occupations

PM11	**Which occupations in your company have changed the most in terms of skills and tasks in the last five years due to the digital transition?** ***Digital transition*** *refers to the adoption and integration of digital technologies across business operations. This includes increased use of automation, artificial intelligence (AI), data analytics, digital tools and platforms, cloud computing, and the transformation of products, services, and internal processes through digital means.* ***Tick all that apply***
PM11_1	Managers
PM11_2	Professionals

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PM11	**Which occupations in your company have changed the most in terms of skills and tasks in the last five years due to the digital transition?** ***Digital transition*** *refers to the adoption and integration of digital technologies across business operations. This includes increased use of automation, artificial intelligence (AI), data analytics, digital tools and platforms, cloud computing, and the transformation of products, services, and internal processes through digital means.* ***Tick all that apply***
PM11_3	Technicians and associate professionals
PM11_4	Clerical support workers
PM11_5	Services and sales workers
PM11_6	Skilled agricultural, forestry and fishery workers
PM11_7	Craft and related trades workers
PM11_8	Plant and machine operators and assemblers
PM11_9	Elementary occupations
PM11_10	Employed in a military capacity by the Armed Forces
PM11_11	Digital transition was not important for hiring any of these occupations

SKILLS

SQ1 Only if PM2_1≠0	**Which of the following skills were important or required in the newly created positions** ***(i.e. roles that did not exist before)*** **in your workplace/company/organization in the last 24 months?** ***Jobs created*** *are understood as newly established positions that did not exist previously within the company or location. Do not count positions where someone was simply replaced (e.g. after resignation, retirement, or dismissal).* ***Tick all that apply***
SQ1_1	Agriculture, forestry, fisheries and veterinary Skills
SQ1_2	Arts and Humanities Skills
SQ1_3	Care & Social Services Skills
SQ1_4	Communication & Interpersonal Skills
SQ1_5	Digital & Technology Skills
SQ1_6	Educational Skills
SQ1_7	Management & Business Skills
SQ1_8	Personal Development Skills
SQ1_9	Physical & Manual Operations Skills
SQ1_10	Research & Analysis Skills
SQ1_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills
SQ1_12	Service Operations and Safety Skills
SQ1_13	Social sciences and journalism Skills

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SQ2 Only of PM2_2≠0	**Which of the following skills were important or required in the existing positions that have been eliminated and not replaced in your organization over the past 24 months?** *Jobs eliminated refer to positions that have been permanently discontinued, resulting in a net reduction in roles at your location. Do not count temporary vacancies or roles that were later refilled.* ***Tick all that apply***
SQ2_1	Agriculture, forestry, fisheries and veterinary Skills
SQ2_2	Arts and Humanities Skills
SQ2_3	Care & Social Services Skills
SQ2_4	Communication & Interpersonal Skills
SQ2_5	Digital & Technology Skills
SQ2_6	Educational Skills
SQ2_7	Management & Business Skills
SQ2_8	Personal Development Skills
SQ2_9	Physical & Manual Operations Skills
SQ2_10	Research & Analysis Skills
SQ2_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills
SQ2_12	Service Operations and Safety Skills
SQ2_13	Social sciences and journalism Skills

SQ3	**Which of the following skills in your organization will/may rise in demand due to the green transition?** *Green transition refers to the shift toward more environmentally sustainable business models and practices. This includes efforts to reduce greenhouse gas emissions, improve energy efficiency, transition to renewable energy sources, adopt circular economy principles, and comply with environmental regulations or climate-related targets (e.g., net zero).* ***Tick all that apply***
SQ3_1	Agriculture, forestry, fisheries and veterinary Skills
SQ3_2	Arts and Humanities Skills
SQ3_3	Care & Social Services Skills
SQ3_4	Communication & Interpersonal Skills
SQ3_5	Digital & Technology Skills
SQ3_6	Educational Skills
SQ3_7	Management & Business Skills
SQ3_8	Personal Development Skills
SQ3_9	Physical & Manual Operations Skills
SQ3_10	Research & Analysis Skills
SQ3_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills
SQ3_12	Service Operations and Safety Skills
SQ3_13	Social sciences and journalism Skills
SQ3_14	In my organization no skills rise in demand due to the green transition

SQ4	**Which of the following skills in your organization will/may decline in demand due to the green transition?**

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	Green transition *refers to the shift toward more environmentally sustainable business models and practices. This includes efforts to reduce greenhouse gas emissions, improve energy efficiency, transition to renewable energy sources, adopt circular economy principles, and comply with environmental regulations or climate-related targets (e.g., net zero).* ***Tick all that apply***
SQ4_1	Agriculture, forestry, fisheries and veterinary Skills
SQ4_2	Arts and Humanities Skills
SQ4_3	Care & Social Services Skills
SQ4_4	Communication & Interpersonal Skills
SQ4_5	Digital & Technology Skills
SQ4_6	Educational Skills
SQ4_7	Management & Business Skills
SQ4_8	Personal Development Skills
SQ4_9	Physical & Manual Operations Skills
SQ4_10	Research & Analysis Skills
SQ4_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills
SQ4_12	Service Operations and Safety Skills
SQ4_13	Social sciences and journalism Skills
SQ4_14	In my organization no skills decline in demand due to the green transition

SQ5	**Which of the following skills in your organization will/may rise in demand due to the digital transition?** ***Digital transition*** *refers to the adoption and integration of digital technologies across business operations. This includes increased use of automation, artificial intelligence (AI), data analytics, digital tools and platforms, cloud computing, and the transformation of products, services, and internal processes through digital means.* ***Tick all that apply***
SQ5_1	Agriculture, forestry, fisheries and veterinary Skills
SQ5_2	Arts and Humanities Skills
SQ5_3	Care & Social Services Skills
SQ5_4	Communication & Interpersonal Skills
SQ5_5	Digital & Technology Skills
SQ5_6	Educational Skills
SQ5_7	Management & Business Skills
SQ5_8	Personal Development Skills
SQ5_9	Physical & Manual Operations Skills
SQ5_10	Research & Analysis Skills
SQ5_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills
SQ5_12	Service Operations and Safety Skills
SQ5_13	Social sciences and journalism Skills
SQ5_14	In my organization no skills rise in demand due to the digital transition

SQ6	**Which of the following skills in your organization will/may decline in demand due to the digital transition?** ***Digital transition*** *refers to the adoption and integration of digital technologies across business operations. This includes increased use of automation, artificial intelligence (AI), data analytics, digital tools and platforms, cloud computing, and*

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	the transformation of products, services, and internal processes through digital means. ***Tick all that apply***
SQ6_1	Agriculture, forestry, fisheries and veterinary Skills
SQ6_2	Arts and Humanities Skills
SQ6_3	Care & Social Services Skills
SQ6_4	Communication & Interpersonal Skills
SQ6_5	Digital & Technology Skills
SQ6_6	Educational Skills
SQ6_7	Management & Business Skills
SQ6_8	Personal Development Skills
SQ6_9	Physical & Manual Operations Skills
SQ6_10	Research & Analysis Skills
SQ6_11	Science, Technology, Engineering, and Mathematics (STEM) and Industrial Applications Skills
SQ6_12	Service Operations and Safety Skills
SQ6_13	Social sciences and journalism Skills
SQ6_14	In my organization no skills decline in demand due to the digital transition

SQ7	**Have you faced difficulties hiring workers with the following skills in the past 24 months?**			
		Yes	***No***	***this skill was not crucial in recruitment***
SQ7_1	Management and Advisory Skills			
SQ7_2	Manufacturing and Material Processing Skills			
SQ7_3	Information Technology and Engineering Skills			
SQ7_4	Multilingual and Community Engagement Skills			
SQ7_5	Healthcare, Veterinary, and Therapeutic Skills			
SQ7_6	Transportation, Maritime, and Aviation Operations Skills			
SQ7_7	Machinery Operation and Maintenance Skills			
SQ7_8	Construction, Repair, and Safety Management Skills			
SQ7_9	Creative Arts and Performance Skills			
SQ7_10	Analytical and Research Skills			
SQ7_11	Environmental Sustainability and Resource Management Skills			
SQ7_12	Safety and Security Management Skills			
SQ7_13	Educational Instruction and Training Skills			

SQ8	**Has the green and digital transition changed tasks that your employees have to undertake?**		
		Yes	***No***

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SQ8_1	The green transition has changed the tasks that my employees have to undertake		
SQ8_2	The digital transition has changed the tasks that my employees have to undertake		

4. Conclusion

The design of the two survey instruments presented in this deliverable — the employees' and employers' questionnaires — reflects a carefully structured process of conceptualization, co-creation, and iterative refinement, as the outcome of the process in WP2 and deliverables D2.1, D2.2 and D2.3. The questionnaires were developed as primary data collection tools under the ISABEL project, with the objective of capturing the evolving dynamics of JCD, occupational change, and skill demand in the context of the green and digital transitions.

An initial version of both instruments was presented and discussed during the ISABEL co-creation workshop held on July 10th, 2025. Feedback received from project partners and domain experts was instrumental in shaping the final structure. As a result of these discussions, the questionnaires were shortened through the removal of optional or non-essential questions, while selected items were refined to improve clarity, relevance, and respondent engagement. A more detailed description of the feedback and how was addressed can be found in Annex 3.

Following the workshop, the revised questionnaires underwent a pilot test in Poland in August 2025. The pilot helped validate the logical flow and technical implementation of both instruments. Most of the recommended changes were implemented, with the exception of a few cases (e.g. removal of postal code questions), where analytical priorities took precedence.

These instruments are now field-ready, grounded in both methodological rigor and practical testing.

In order to deploy the questionnaires effectively across multiple countries and respondent groups, the following technical and procedural guidelines are recommended:

- The questionnaires rely heavily on adaptive routing, conditional skipping, and embedded code trees (e.g. ISCO and NACE classifications). Therefore,

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the survey platform must support advanced filtering and branching logic. Platforms such as LimeSurvey, CADAS, or other CAWI solutions with robust scripting capabilities are recommended. Before deployment, all routing logic and filters must be fully stress-tested in the CAWI platform.

- For the employees' questionnaire, standard CAWI fieldwork using access panels is sufficient. However, the platform must allow real-time quota monitoring based on gender, age group, and employment status.
- For the employers' questionnaire, recruitment should combine CAWI with CATI. Research companies should first contact firms via telephone (CATI) to identify the appropriate respondent (e.g. HR manager), particularly in large and medium-sized enterprises. The selected respondent can then complete the survey via CAWI.
- Country teams must ensure accurate translation of both terminology and filter logic. Special care should be taken with ISCO/NACE classifications, skill-related questions adapted from ISABEL NACE categorization and ISCED frameworks.

The employees' and employers' questionnaires presented in this deliverable are central tools for the empirical phase of the ISABEL project. Developed collaboratively, piloted, and refined through stakeholder engagement and field testing, they are ready for implementation across diverse national and regional socio-economic contexts.
The questionnaires were originally developed in English and then will be translated into the native languages of the participating countries (Danish, Greek, Polish, Serbian, and Spanish). Except for the UK, in each participating country, the survey will be delivered in both the native language and in English. The English version will also serve respondents with a migration background who may not be fully proficient in the language used in given country.

The deployment of the questionnaires will provide the ISABEL consortium with first-hand, structured data on key labor market developments, enabling robust analysis of JCD trends, occupational transformation, and shifting skill demands in response to green and digital transitions.
The tools are designed not only to collect data, but to offer a scalable, repeatable framework for understanding labor market change from both the worker and employer perspectives. The guidelines presented here aim to support smooth implementation and high-quality data collection, laying the groundwork for a meaningful, socially valuable and policy-relevant analysis.

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Annexes

Annex 1 Expert Assessment – Employee Survey Questionnaire

Assessment of Logical Consistency and Potential Difficulties in Survey Implementation

The logical consistency of the tool, understood as the methodical sequence of question blocks and topics, is assessed as average from a desk research perspective. In particular, the pathways for different categories of respondents (labor market status vs. questionnaire section) require clearer definition. This limitation, however, will be less noticeable to respondents if the CAWI script is properly prepared. In the text version, it is recommended to clearly indicate the intended addressees at the beginning of each block.

Further refinement of definitions and respondent instructions is required. The construction of questions, response options, and terminology demands the application of detailed filters (a requirement for the CAWI tool) to prevent respondents from reconstructing the logical structure of the instrument themselves.

During the pilot study, the average completion time was 21’40”, which exceeds the generally accepted threshold of 20 minutes for surveys of comparable subject matter and respondent profile. Beyond this limit, the risk of respondent fatigue and dropout increases significantly. Separate analysis of completion times for employed and unemployed respondents yielded averages of 22’18” and 20’07” respectively. It is recommended to shorten the questionnaire, particularly in the demographics section, as this is unlikely to negatively affect the cognitive value of the study.

Diagnosis of Implementation and Analytical Risks

The greatest implementation risk is identified in the structure of the sample of employed respondents in the main survey, where excessive complexity may

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significantly hinder respondent recruitment, extend the implementation timeline, and, most importantly, cause a steep increase in costs. Constraining factors may include sectoral or geographical restrictions, as well as limitations related to job position or length of service. The schedule should also take into account socio-economic conditions that may restrict fieldwork, such as anticipated holiday and vacation periods.

From a technical perspective, it is essential to ensure that the CAWI system incorporates advanced functionalities that enable faithful digital reproduction of the instrument in line with methodological assumptions (instrument logic, filters, sample control, etc.). Examples of recommended solutions include LimeSurvey and CADAS.

The statistical analysis of results, in order to avoid computational and interpretative errors, must be conducted by individuals trained in survey methodology, particularly in questionnaire design and logic.

Proposed Modifications Aimed at Improving the Validity, Clarity, and Effectiveness of the Tool

1. PF2 – The filtering question regarding a change of "place of employment" is imprecise. A literal interpretation of place is unlikely to reflect the intended meaning of the study. Recommended change: "In the past 10 years, have you changed your employer at least once?" It should also be considered whether changing positions within the same employer should count as a change for the study's purposes, i.e. whether the focus is on the change of employer/place or the change of position (and associated modifications of skills, characteristics, etc.).
2. P1 – The definition of employment is limited to employment contracts. According to the Terms of Reference, it should also include civil-law contracts and B2B. The definition should therefore be broadened. Similarly, the current definition of potential exclusion (e.g. including volunteer or unpaid work) introduces informational confusion. Such activities do not necessarily mean the absence of paid work. Recommendation: remove this clause; the modified P1 response set will effectively maintain the inclusion condition.
3. P1 – Extend the response options:
    - 1_3 – No, but I am looking for a job
    - 1_4 – No, and I am not looking for a job (end of survey)
4. U2 – Replace "your previous job" with "your most recent job", as the former is ambiguous.
5. U1 – Revise response options as follows:
    - Less than one month
    - More than one month but less than six months
    - More than six months but less than one year
    - More than one year but less than two years
    - More than two years
6. U4 – Remove the phrase "makes it difficult for me to find work" from items 4_2 and 4_4, as all listed factors already constitute barriers.
7. U4 – Item 4_1 "long period" is subjective and ambiguous; it should be clarified or removed.
8. CJ3_11 and CJ3_12 – Merge into one category "other".
9. CJ3 (follow-up options) – Replace the final response option "don't know" with "other".
10. CJ4_5 – Add B2B.
11. CJ4_7 – Remove.
12. CJ5_1 – Since the sample design does not assume geographic stratification,

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requiring respondents to provide a code seems unnecessary. Recommendation: remove.

13. CJ7_22 – Replace with “other”.
14. CJ7 (follow-up options) – Replace the final response option “don’t know” with “other”.
15. Job Change section – There is no clear indication of who should complete this section. Methodological assumptions indicate that all respondents should answer, including those currently unemployed (since the inclusion criterion is at least one change of employer/place). Recommendation: merge blocks for employed respondents into one.
16. JC3 – Remove the phrase “makes it difficult for me to find work” from items 3_2 and 3_4, as all listed items already reflect challenges.
17. JC3 – Item 3_1 “long period” is subjective and ambiguous; it should be clarified or removed.
18. JC3 – Swap the order of items 3_13 and 3_14.
19. Previous Job section – Current instructions are overly complex. Recommended modification: “We would like to ask you a few questions about your previous job. If you are currently unemployed, please answer with reference to your most recent job.”
20. PJ1_11 and PJ1_12 – Merge into one category “other”.
21. PJ1 (follow-up options) – Replace the final response option “don’t know” with “other”.
22. PJ3_1 – Since the sample design does not assume geographic stratification, requiring respondents to provide a code seems unnecessary. Recommendation: remove.
23. PJ5_22 – Replace with “other”.
24. PJ5 (follow-up options) – Replace the final response option “don’t know” with “other”.
25. General note on demographics – Retain only those variables that may serve as sample selection criteria. Otherwise, they will merely be recorded, with limited analytical value given the sample size, while significantly extending the already extensive questionnaire.
26. M3 – Response options are overly detailed; recommendation: simplify/aggregate. Clarify whether the question realistically applies to conditions in other partner countries.
27. M4 – Recommended for removal or significant simplification. The question is ignored/criticised by respondents, and it is unclear whether all respondents are supposed to answer it.
28. M6/M7 – Missing definition of migrant/refugee. This should be provided.
29. M9 – Similar to earlier cases, the variable has no real analytical value under the current assumptions. Recommendation: remove.

Annex 2 Expert Assessment – Employer Survey Questionnaire

Assessment of logical consistency and potential difficulties in survey implementation

The logical consistency of the tool, understood as a methodical sequence of question blocks and topics assessed from the perspective of desk research, is high. Nevertheless, the construction of the questions and response options, as well as the complexity of the wording and concepts, requires the application of precise filtering mechanisms (a requirement for the CAWI tool) to ensure that respondents are not required to reconstruct the logical structure of the

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questionnaire themselves. This approach will effectively eliminate the risk of technical errors on the part of respondents and significantly improve their subjective perception of the tool as user-friendly, coherent, and concise.
During the pilot study, the average completion time for all respondents was 13'18", which should be considered a satisfactory result. At this level, no increased risk of respondent fatigue or survey abandonment is anticipated.
It should be noted, however, that due to various factors, including the current legal framework, only a small proportion of companies create or, in particular, eliminate jobs. In the surveyed sample, this applied to two companies. In such cases, the average completion time was 23'05", which must be regarded as unacceptably high. Furthermore, in the event of a large company creating or eliminating a dozen or more jobs, the completion time could exceed one hour, which would be highly undesirable.
In isolated cases, as indicated later in this expert assessment, it is recommended to simplify or clarify response options, or to remove specific questions.

Diagnosis of Implementation and Analytical Risks

The greatest implementation risk is identified in the structure of the employer sample in the main survey, where excessive complexity may significantly hinder access to respondents. For example, factors such as sectoral or geographical restrictions, limitations related to job position or work experience, and in particular the overrepresentation of large companies, may pose challenges. Applying these criteria at a high level could increase the survey costs several times. It is also necessary to take into account potentially restrictive socio-economic conditions in the schedule, such as anticipated holiday or vacation periods.
On the technical level, it is essential to ensure that the CAWI system is equipped with advanced solutions that allow for an accurate digital representation of the tool in line with methodological assumptions (instrument logic, filters, sample control, etc.). Examples of such solutions include LimeSurvey and CADAS Software.
The statistical analysis of the results, in order to avoid computational and interpretative errors, must be carried out by individuals trained in the survey methodology, particularly in the construction and logic of the instrument.

Proposed Modifications Aimed at Improving the Validity, Clarity, and Effectiveness of the Tool

1. CQ2 – Clarify the term "personnel changes". The tool includes concepts such as "job creation/elimination" as well as "employment". The definition of personnel changes should be made more precise (presumably broader, encompassing these related concepts).
2. MQ3_4 – Recommended for removal. Work in the field, remote work, or at the client's site is not related to company headquarters. In Poland, a company must have a registered office regardless of the place or method of work performance.
3. MQ3_5 – "Other, please specify" recommended for removal. The existing catalogue of answers is exhaustive, while a semi-open option in this case generates the risk of non-aggregable responses.
4. MQ5 – Follow-up questions regarding the main area of activity should specify whether they are single-choice or multiple-choice.
5. PM2 – Apply logical filters in cases where the value "0" is given for created/eliminated jobs. A "0" response should automatically hide subsequent sequences of questions regarding created jobs (PM3, PM4) and eliminated jobs

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(PM5, PM6).

6. PM4_11 – Remove “none” from the response options.
7. PM4_12 – Replace the response option “don’t know” with “other occupational group (or category)” or a similar formulation. This adjustment should also be applied to subsequent questions on job creation/elimination by occupational groups.
8. PM7 – Apply a logical filter to subsequent questions in cases where the option “we did not employ in these occupations” is selected. Such occupations should then be hidden in PM8 and PM9.
9. PM10 – This question is highly ambiguous and difficult to interpret in a quantitative survey. The response set is extensive, with broad and multi-faceted concepts, and lacks specification of the degree or direction of factor impact. Recommendation: removal or substantial reformulation.
10. SQ1 – The question concerns newly created jobs and should therefore be hidden when “0” is given in PM2_1. Item SQ1_15 is redundant.
11. SQ2 – The question concerns eliminated jobs and should therefore be hidden when “0” is given in PM2_2. Item SQ2_15 is redundant.
12. SQ3_15 – Add “in connection with the green transition”.
13. SQ3/SQ4 and SQ5/SQ6 pairs – Consider applying filters preventing bidirectional evaluation of the same skills within the response set.
14. Skill-related response sets (SQ1–SQ6, possibly SQ7) – It is recommended to add “other skills” as the penultimate option.

Annex 3 Feedback from the ISABEL Co-Creation Workshop and Response Measures

The development of the ISABEL survey instruments was grounded in an iterative and consultative process. A key milestone in this process was the ISABEL co-creation workshop held online on July 10th, 2025, which brought together researchers, project partners, and stakeholders from all partner regions to review the preliminary versions of both the employees’ and employers’ questionnaires.

This document summarizes the main areas of feedback provided during the workshop and outlines how they were integrated into the final design. The workshop's insights contributed directly to improving the quality, usability, and methodological alignment of the data collection tools.

1. Improving Access to the Right Respondents (Employers’ Questionnaire)

Feedback:
Participants raised concerns about the challenge of identifying and reaching the appropriate respondent within a company—ideally someone knowledgeable about HR policies and staffing developments. Without clear targeting, the risk of poor-quality or incomplete responses was considered high.

Adjustment implemented:

To address this, the data collection method was revised to combine Computer-Assisted Web Interviewing (CAWI) with a Computer-Assisted Telephone Interviewing (CATI) step. In case of big and medium sized firms, research companies will initiate contact by phone to identify the correct individual within the company, before sending the link to the web-based questionnaire. This two-phase approach ensures more accurate targeting and improved response quality. In case of small enterprises, the company owner will be directly addressed.

2. Questionnaire Length and Technical Language

Feedback:
Both questionnaires were initially considered too lengthy and overly technical,

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which could increase dropout rates, particularly among employees or representatives from smaller firms. Several participants emphasized that this could affect representativeness and introduce bias toward more engaged or better-resourced respondents.

Improvements made:

The questionnaires were substantially shortened (particularly the employees' questionnaire) by removing non-essential and optional questions. In parallel, the wording was simplified, especially in the employees' questionnaire, to make the tool accessible to individuals regardless of education or digital literacy. The employers' questionnaire retains some technical language, considered appropriate for the target respondent group, but efforts were made to improve clarity and provide explanatory prompts where needed.

3. Measuring Job Creation and Destruction (JCD)

Feedback:
Accurate measurement of job creation and destruction was highlighted as both crucial and operationally difficult. Concerns were raised about definitions, recall accuracy, and the burden of reporting data by occupation.

Amendments introduced:

Clarifications were added to distinguish between newly created roles, eliminated positions, and simple replacements. The use of ISCO and NACE classifications was retained to maintain analytical integrity, but implemented using a two-step structure: first a major category (1-digit) is selected, followed by a refined 2-digit list based on the previous choice. This approach enables disaggregation without overburdening respondents.

4. Other Notable Feedback Integrated

Beyond the key thematic areas described above, additional feedback led to important refinements in the questionnaire design and structure:

- **Restructuring for unemployed respondents**:

  While the initial version of the employees' questionnaire already included unemployed individuals, its block structure was fully separated, which resulted in duplicated sections and increased complexity. In response to workshop input, the structure was reorganized to merge and streamline sections, eliminating redundancy while retaining all key content. This allowed for a more intuitive routing logic, reducing respondent burden without compromising the richness of data collected across employment statuses.

- **Open-ended questions**:

  During the discussion, some participants suggested incorporating open-text questions to capture nuanced or contextual insights. However, the ISABEL team—chose not to include open-ended questions in either questionnaire. This decision was based on strong operational considerations:

  (1) translations into multiple languages would significantly increase error risk and processing burden,

  (2) open answers often yield low-quality or minimal responses, and

  (3) they increase completion time, potentially harming response rates. Instead, the questionnaires rely entirely on structured close-ended questions,

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ensuring consistency, comparability, and scalability across countries and languages.

The co-creation workshop served as a crucial feedback mechanism, enabling the ISABEL team to refine the questionnaires in a way that balances methodological rigor with practical feasibility. The final instruments are shorter, clearer, and better targeted, while remaining fully aligned with the project's analytical goals related to job creation, destruction, and skill change under the green and digital transitions.

The insights from this workshop not only shaped the tools directly but will also inform implementation logistics, technical guidance, and future adaptive adjustments during fieldwork.

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